ATTACHMENT F

Certified EIR

FINAL ENVIRONMENTAL IMPACT REPORT

16 East California Project

SCH No. 2008101002

July 2009

FINAL ENVIRONMENTAL IMPACT REPORT

16 East California Project

SCH No. 2008101002

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Preface to Final EIR

PREFACE TO FINAL EIR

This Final EIR has been prepared for the 16 E. California Project in accordance with the requirements of the California Environmental Quality Act (CEQA). Section 15132 of the State CEQA Guidelines requires that a Final EIR contain the following:

1. The Draft EIR or a revision of the draft.
2. Comments and recommendations received on the Draft EIR either verbatim or in summary.
3. A list of persons, organizations, and public agencies commenting on the Draft EIR.
4. The responses of the Lead Agency to significant environmental points raised in the review and consultation process.
5. Any other information added by the Lead Agency.

The Draft EIR, the comments received on the Draft EIR, and the responses to these comments collectively comprise the Final Environmental Impact Report (Final EIR) for the proposed project. The Draft EIR and Technical Appendices were circulated for a 45-day public review period from on Tuesday, March 17, 2009 to Friday, May 1, 2009. At a meeting held on Thursday April 2, 2009 the City Transportation Advisory Commission reviewed and commented on the Draft EIR and also received comments from the public. The Draft EIR was also reviewed at a meeting held by the City Historic Preservation Commission on April 6, 2009. Comments on the Draft EIR were received at a public hearing held by the Hearing Officer on Wednesday April 15, 2009. And, on Wednesday April 22, 2009 the City Planning Commission reviewed and commented on the Draft EIR and received comments from the public as well.

This Final EIR incorporates the Draft EIR, changes and additions to the Draft EIR based on comments received during the public review period, as well as edits to the document made to further clarify information presented. As such, revisions are shown using revision mode text (i.e., deletions are shown with ~~strikethrough~~ and additions are shown with <u>underline</u>). None of the changes made to the Draft EIR affect conclusions regarding the level of significance of environmental issues addressed in the Draft EIR.

Pursuant to Section 15088 of the CEQA Guidelines, the City of Pasadena, as the Lead Agency, has reviewed all comments received during the public comment period for the Draft EIR. Comment letters, as well as comments received at City meetings and at a public hearing held on the Draft EIR are presented in Section VII., Comments and Responses, of this Final EIR,

along with City responses. A matrix listing the individuals and agencies commenting on the Draft EIR, and corresponding environmental issues raised, is provided beginning on page VII-2 of this document. Issues identified in the matrix as "Other" relate to non-CEQA issues or issues that do not address the content of the Draft EIR, such as comments expressing general support or opposition to the project.

This Final EIR also includes a Mitigation Monitoring and Reporting Program (MMRP), provided in Section VIII of this document. The MMRP, which provides the mitigation program that will be adopted by the City pursuant to Public Resources Code Section 21081.6, will ensure that if the project is developed, all recommended mitigation measures are implemented, thereby minimizing identified environmental effects.

Executive Summary

EXECUTIVE SUMMARY

INTRODUCTION

This Final Environmental Impact Report (Final EIR) has been prepared pursuant to the requirements of the California Environmental Quality Act (CEQA) in order to address the proposed 16 E. California Project ("the proposed Project"). In accordance with CEQA Guidelines §15123, this section of the EIR provides a brief description of the project; identification of significant environmental impacts; proposed mitigation measures and alternatives that would reduce or avoid such impacts; and, areas of controversy known to the lead agency.

PROJECT LOCATION

The Project site is located in the southern portion of the City of Pasadena, approximately two miles east of the City of Glendale and 11 miles northeast of downtown Los Angeles. The northern terminus of the Pasadena Freeway (I-110), located approximately 0.6 mile southeast of the site, transitions into South Arroyo Parkway, which is located approximately 0.2 mile east of the site. The site is bounded by California Boulevard to the north, Edmondson Alley to the east, commercial uses to the south, and Fair Oaks Avenue to the west.

PROPOSED PROJECT

As further described in Section II, Project Description, the project site is improved with three one-story buildings and associated areas of surface parking. Implementation of the proposed Project would require demolition of the existing buildings and clearing of the entire site in order to develop a four-story, 45-foot high office building with 255 parking spaces located within a two level subterranean parking garage. The building would also include architectural features and screening that may go up to an additional 14 feet to provide building continuity, attractive design, and screening for mechanical equipment. The Project would include 113,200 gross square feet of office floor area, representing a net increase of 100,565 gross square feet of floor area compared to existing conditions on the site. The ground floor of the proposed office building would include a large, centrally located lobby. Office spaces in various configurations would be dispersed throughout the building on the ground floor. The upper floors (levels 2-4) would include smaller lobby spaces of approximately 215 square feet with the remainder of the floors occupied by office space.

The proposed Project would also include a 4,000 square foot plaza proposed at the corner of Fair Oaks Avenue and California Boulevard and a 1,500 square foot courtyard located in the southern-central portion of the site for a total approximately of 5,500 square feet. Landscaping is proposed along the eastern and southern perimeters of the site and street trees along the northern and western portions of the site. The landscape plan includes numerous planters with trees, shrubs, and other ornamental plantings with low to moderate water demand that would be located to provide a varied planting, but continuous landscape theme throughout the project site.

Vehicular access to the site is provided via an ingress-only driveway from Fair Oaks. There is also access to the site via Edmondson Alley from either California Boulevard to the north or Pico Street to the south. A loading area would be located along the ingress driveway from Fair Oaks Avenue with egress from Edmondson Alley. Pedestrian access to the site would be from California Boulevard with secondary pedestrian access provided along the south side of the building.

The proposed Project would include exterior low level lighting on buildings and a card access system to control parking entry, building entry (after hours) and access to individual floors via the elevators.

AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

Potential areas of controversy and issues to be resolved by the City of Pasadena include issues known to be of concern to the community and issues raised in response to the Notice of Preparation (NOP) and the Draft EIR. Concerns raised in response to the project's NOP and at a public scoping meeting held at the City on October 16, 2008, involved issues already identified for further analysis in the Draft EIR. In addition to general questions about the proposed Project, the primary concern raised at the public scoping meeting focused on the potential for increases in traffic and associated effects on circulation.

ALTERNATIVES

The CEQA Guidelines require an EIR to "describe the range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." The CEQA Guidelines direct that selection of alternatives be guided by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice.

As described in detail in Section V, Alternatives, of this Final EIR, three alternatives to the project were identified and analyzed with respect to the significant effects of the project and the basic objectives of the Project. These alternatives are summarized below.

No Project Alternative. The No Project Alternative assumes that there would be no demolition of the existing buildings on the site and that the buildings would be occupied with commercial uses similar to those which have been on the site in the past. It is assumed that minor tenant improvements would be provided but that there would be no development of new buildings. As such, the No Project Alternative would provide 12,635 square feet of commercial space that would be occupied by restaurants or other complementary uses. The site would continue to contain approximately 75 parking spaces.

Reduced Density Alternative. The Reduced Density Alternative would include the same office uses as the proposed project with the overall site density reduced by 16 percent, which is the point at which the potential traffic impacts along Pico Street would not exceed the City's 4.9 percent threshold for physical mitigation for roadway segments. As such, the Reduced Density Alternative would reduce project development from 113,200 gross square feet to 95,088 gross square feet of development (82,453 gross square feet of new development). With less development on the project site, parking could be reduced from 255 parking spaces to 214 spaces. It is assumed that the site layout and access would be similar to the proposed project since that layout provides efficient accessibility and has been designed to accommodate site access with maximum distances between the garage entrance and site entry points. The most likely design would be a 16 percent reduction in the building footprint.

Medical Office/Commercial Use Alternative. If an office building of the type proposed did not proceed, possible alternative uses that might be pursued include medical office and/or commercial activity. Therefore, an alternative has been included in this analysis that is based on a building of generally similar size and configuration to that of the proposed project; but with an alternative mix of uses. The No Project – Medical/Office Commercial Use Alternative would include 75,000 square feet of medical office use, and 25,000 square feet of commercial space, in a four story building with commercial activities on the ground floor. It would include commercial activity to complement the on-site medical uses as well as serve the off-site project vicinity.

Environmentally Superior Alternative. The findings of the alternatives analysis presented in Section V, Alternatives, indicate that of the alternatives analyzed in this Final EIR, the No Project Alternative is considered the environmentally superior alternative, as it would avoid the proposed Project's significant impacts due to construction (i.e. NO_x emissions) and street segment impacts on Pico Street. In addition, the No Project Alternative would avoid the remaining less than significant impacts that would occur under the project. However, the No Project Alternative would be less beneficial with respect to the Air Quality Management Plan

and would meet none of the project objectives. However, the State CEQA Guidelines require the identification of an environmentally superior alternative to the proposed Project and, if the environmentally superior alternative is the "No Project Alternative," the identification of an environmentally superior alternative should be from among the remaining alternatives.

As the No Project Alternative is determined to be the environmentally superior alternative, an alternative selection is required. The Medical Office/Commercial Alternative would increase project impacts including the intensity of the Project's significant impacts. In contrast, the Reduced Density Alternative would avoid the proposed Project's potentially significant impact regarding street segments but would not avoid its significant air quality (NOx) impacts due to construction. Beyond this, the Reduced Density Alternative would marginally reduce the proposed Project's non-significant impacts. Therefore, the Reduced Density Alternative remains as the environmentally superior alternative amongst the alternatives analyzed.

SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table ES-1 on page ES-5 presents a summary of the environmental impacts associated with the proposed project, the mitigation measures that would reduce or avoid those effects, and the level of significance of the impacts following implementation of the mitigation measures.

Table ES-1

Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Potential Environmental Impacts	Proposed Mitigation Measures	Level of Significance After Mitigation
A. AIR QUALITY		
Construction. Construction-related daily maximum regional construction emissions would not exceed the SCAQMD daily significance thresholds for PM_{10}, $PM_{2.5}$, CO, VOC, or SO_X. However, construction NO_X emissions would exceed SCAQMD daily significance thresholds. Thus, construction emissions would result in a significant short-term regional air quality impact.	**A-1:** Contractors shall implement a fugitive dust control program pursuant to the provisions of SCAQMD Rule 403. **A-2:** All construction equipment shall be properly tuned and maintained in accordance with manufacturer's specifications. **A-3:** Contractors shall maintain and operate construction equipment so as to minimize exhaust emissions. **A-4:** Electricity from power poles rather than temporary diesel- or gasoline-powered generators shall be used to the extent feasible. **A-5:** All construction vehicles shall be prohibited from idling in excess of ten minutes, both on- and off-site.	Significant and Unavoidable.
B. CULTURAL RESOURCES		
1. Historical Resources		
The two neon signs associated with the former Monty's Steak House building at 592 S. Fair Oaks, would be removed from the site prior to the demolition of the building. The pole-mounted sign is designated as a historic resource on a local listing by the City, and both signs are considered historic resources for the purposes of CEQA compliance. Demolition of the building would ordinarily result in a significant impact to historic resources; however, consistent with the preservation methods included in the National Park Service's Preservation Brief 25, "The Preservation of Historic Signs," the Project includes the relocation of the signs to a Museum.	**B-1: Recordation and Photography.** Prior to removal and relocation of the two signs, a pole-mounted sign and a wall-mounted sign presently situated at 592 S. Fair Oaks, a Historic American Buildings Survey (HABS) level III recordation shall be prepared. The signage shall be documented in large format black-and-white photographs and written narrative in accordance with HABS requirements. Completion of the HABS level III recordation of the existing signs on the project site should be implemented prior to their removal and before commencement of construction activities. This documentation shall be prepared by a qualified	Less Than Significant.

Table ES-1 (Continued)

Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Potential Environmental Impacts	Proposed Mitigation Measures	Level of Significance After Mitigation
	architectural historian or historic architect and a photographer experienced in Historic American Building Survey (HABS) photography. The building's exterior showing the signs in place, as well as the property setting and contextual views shall be documented. Original archival prints shall be submitted to the California Office of Historic Preservation, the City of Pasadena Planning and Development Department and the Pasadena Public Library. **B-2: Signage Relocation.** To assist the general public and interested parties in understanding the history of neon signage in Pasadena and to make these historic resources available to the public, the neon and metal signage of the circa 1951-1953 pole-mounted sign located at 592 S. Fair Oaks Avenue shall be preserved on site (if feasible) and, if it cannot be preserved on site, it is preferred that it remain in the City and be exhibited in a suitable location in public view. The wall mounted sign (circa 1961) may be donated to a suitable off-site repository or collection, preferably one located either within Pasadena or another location within the Los Angeles metropolitan area, such as the Museum of Neon Art in Los Angeles, which will ensure the continued preservation of the signage. To reduce potential damage to the signs during their relocation, the applicant shall obtain the services of a qualified conservator experienced in the removal and conservation of neon signage and who shall prepare and implement a relocation plan. Prior to the issuance of a demolition permit and any permits for the relocation of the signs, the relocation plan shall be	

Table ES-1 (Continued)

Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Potential Environmental Impacts	Proposed Mitigation Measures	Level of Significance After Mitigation
	reviewed by City of Pasadena Design & Historic Preservation staff. The signs may be temporarily relocated in an effort to protect their integrity if deemed necessary and with the approval of City Historic Preservation staff.	
2. Archaeological and Paleontological Resources		
Paleontological Resources. Paleontological records search indicates that excavations into the older Quaternary Alluvium deposits within the Project site are likely to contain significant vertebrate fossils. Thus, construction of the Project, primarily excavation associated with the parking structure at depths averaging 20 feet, has the potential to result in significant impacts associated with the permanent loss of, or loss of access to, a paleontological resource. Thus, impacts to paleontological resources are considered potentially significant prior to mitigation.	**B-3:** A qualified paleontologist shall attend a pre-grade meeting and develop a paleontological monitoring program to cover excavations in the event they occur into the older Quaternary Alluvium. A qualified paleontologist is defined as a paleontologist meeting the criteria established by the Society for Vertebrate Paleontology. If excavation into Quaternary Alluvium occurs, monitoring shall consist of visually inspecting fresh exposures of rock for larger fossil remains and, where appropriate, collecting wet or dry screened sediment samples of promising horizons for smaller fossil remains. If it is determined that excavation will not encounter Quaternary Alluvium, no further measures need be taken. The frequency of monitoring inspections shall be based on the rate of excavation and grading activities, the materials being excavated, and if found, the abundance and type of fossils encountered. **B-4:** If a fossil is found, the paleontologist shall be allowed to temporarily divert or redirect grading and excavation activities in the area of the exposed fossil to facilitate evaluation and, if necessary, salvage. **B-5:** At the paleontologist's discretion and to reduce any construction delay, the grading and excavation contractor shall assist in removing rock samples for initial processing.	Less Than Significant.

Table ES-1 (Continued)

Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Potential Environmental Impacts	Proposed Mitigation Measures	Level of Significance After Mitigation
	B-6: Any fossils encountered and recovered shall be prepared to the point of identification and catalogued before they are donated to their final repository. **B-7:** Any fossils collected shall be donated to a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County. Accompanying notes, maps, and photographs shall also be filed at the repository. **B-8:** If fossils are found following completion of the above tasks the paleontologist shall prepare a report summarizing the results of the monitoring and salvaging efforts, the methodology used in these efforts, as well as a description of the fossils collected and their significance. The report shall be submitted by the Project Applicant to the lead agency, the Natural History Museum of Los Angeles County, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the Project and required mitigation measures.	
Archaeological and Native American Resources. No prehistoric archaeological sites were identified on or within a one-half mile radius of the project site. In addition, the project site has been intensely urbanized and developed for over 100 years and surficial and buried archaeological resources that may have existed prior to the disturbances are likely to have been displaced. Thus, impacts to archaeological resources are considered less than significant. Nonetheless, in the event archaeological resources are unexpectedly encountered during project implementation, mitigation measures are recommended.	**B-9:** If archaeological resources are encountered during project implementation, an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards (the "Archaeologist") shall be immediately notified and retained by the Project Applicant and approved by the City to oversee and carryout the mitigation measures stipulated in this EIR. **B-10:** If archaeological resources are encountered during project implementation, the qualified archaeologist should coordinate with the Project Applicant as to the immediate treatment of the find until a proper site visit and evaluation is made by the	Less Than Significant.

Table ES-1 (Continued)

Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Potential Environmental Impacts	Proposed Mitigation Measures	Level of Significance After Mitigation
No Native American resources in or adjacent to the project site have been identified and no responses from Native American individuals or organizations contacted have been received. Thus, no impacts are anticipated to Native American resources. However, if Native American resources are unexpectedly encountered during project implementation, the mitigation measures recommended would address potential impacts.	archaeologist. The archaeologist shall be allowed to temporarily divert or redirect grading or excavation activities in the vicinity in order to make an evaluation of the find and determine appropriate treatment. Treatment will include the goals of preservation where practicable and public interpretation of historic and archaeological resources. All cultural resources recovered will be documented on California Department of Parks and Recreation Site Forms to be filed with the CHRIS-SCCIC. The archaeologist shall prepare a final report about the find to be filed with Project Applicant, the City, and the CHRIS-SCCIC, as required by the California Office of Historic Preservation. The report shall include documentation and interpretation of resources recovered. Interpretation will include full evaluation of the eligibility with respect to the National and California Register of Historic Places and CEQA. The report shall also include all specialists' reports as appendices. The Lead Agency shall designate repositories in the event that significant resources are recovered. The archaeologist shall also determine the need for archaeological and Native American monitoring for any ground-disturbing activities thereafter. If a need is warranted, the archaeologist will develop a monitoring program in coordination with a Native American representative (if there is potential to encounter prehistoric or Native American resources), the Project Applicant, and the City. The monitoring program will also include a treatment plan for any additional resources encountered and a final report on findings.	

Table ES-1 (Continued)

Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Potential Environmental Impacts	Proposed Mitigation Measures	Level of Significance After Mitigation
	B-11: If human remains are encountered unexpectedly during construction excavation and grading activities, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the NAHC. The NAHC will then identify the person(s) thought to be the Most Likely Descendent of the deceased Native American, who will then help determine what course of action should be taken in dealing with the remains. Preservation of the remains in place or Project design alternatives shall be considered as possible courses of action by the Project Applicant, the City, and the Most Likely Descendent.	
C. NOISE		
Construction. Estimated construction-related noise at the nearest single-family residential uses along Concordia Court, the hospital use on Fairmount Avenue, and the residences along Pico Street would not exceed existing ambient noise levels. In addition, construction equipment noise levels would be below the City's noise limit of 85 dBA at a distance of 100 feet. As such, construction-period noise impacts would be less than significant. Nonetheless, mitigation measures are recommended to reduce noise levels at adjacent properties where construction noise would exceed ambient noise levels.	**C-1:** Construction activities shall be limited to the following hours in accordance with the City's Municipal Code: From 7:00 A.M. to 7:00 P.M. Monday through Friday; From 8:00 A.M. to 5:00 P.M. on Saturday; Construction shall not occur on Sundays and Holidays. **C-2:** Noise-generating construction equipment operated at the project site shall be equipped with effective noise control devices, (i.e., mufflers, lagging, and/or motor enclosures). All equipment shall be properly maintained to assure that no additional noise, due to worn or improperly maintained parts, would be generated.	Less than Significant.

Table ES-1 (Continued)

Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Potential Environmental Impacts	Proposed Mitigation Measures	Level of Significance After Mitigation
	C-3: Engine idling from construction equipment such as bulldozers and haul trucks shall be limited, to the extent feasible. **C-4:** To the extent feasible, construction activities shall be scheduled so as to avoid operating several pieces of heavy equipment simultaneously, which causes high noise levels.	
Operation.	No Mitigation Measures	Less than Significant.
D. TRANSPORTATION		
Construction. With implementation of the construction-related measures identified in the Construction Staging and Traffic Management Plan required for the Project, construction-related traffic impacts are concluded to be less than significant.	No Mitigation Measures	Less Than Significant.
Operation. Although daily traffic volumes on Pico Street between Raymond Avenue and Edmondson Alley would remain modest under the 2010 With Project condition, and the adjacent intersection at Raymond Avenue is projected to operate smoothly at LOS A during both peak hours, the estimated 8.2 percent increase in daily traffic on this segment of Pico Street would be a significant impact requiring mitigation based on the City's street segment significance criteria.	**D-1:** Pico Street between Raymond Avenue and Edmondson Alley – In order to address increased traffic volumes on Pico Street associated with the proposed project the applicant shall provide a contribution to the citywide traffic monitoring program to purchase and install two traffic monitoring stations on Pico Street.	Significant and Unavoidable.

Table ES-1 (Continued)

Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Potential Environmental Impacts	Proposed Mitigation Measures	Level of Significance After Mitigation
E. HAZARDS		
Construction. The two on-site buildings within the western portion of the site are known to contain Asbestos Containing Materials (ACM). In addition, the auto body shop building may also contain ACM. Demolition of buildings containing ACM is therefore considered to be a potentially significant impact.	**E-1:** Prior to the issuance of demolition permits, the Applicant shall submit to the City a comprehensive pre-demolition asbestos survey in accordance with SCAQMD Rule 1403. The survey shall be reviewed and approved by the City of Pasadena Building and Safety Division. All identified ACM shall be removed and disposed of by a registered Cal-OSHA-certified asbestos abatement contractor prior to any disturbance of the material, and the Applicant shall submit documentary proof of such handling to the City.	Less Than Significant.
Construction. Lead Based Paint (LBP) materials were found on various interior and exterior surfaces in both buildings within the western portion of the site. In addition, the auto body shop building may also contain LBP. Therefore, demolition of buildings containing LBP is considered to be a potentially significant impact prior to mitigation.	**E-2:** Prior to issuance of demolition permits, the Applicant shall submit to the City of Pasadena Building and Safety Division a lead-based paint survey for all existing buildings located on the project site. All identified lead-based paint shall be handled and disposed of pursuant to OSHA regulations, and the Applicant shall submit documentary proof of such handling to the City.	Less Than Significant.
Construction. No physical evidence or documentary evidence indicates USTs have existed on the project site. However, it is possible that undocumented USTs were used at the site and may still exist despite extensive redevelopment of the site over the years. Unknown USTs discovered during excavation of the site could contain hazardous materials, which may create hazards to construction workers and is considered to be a potentially significant impact prior to mitigation.	**E-3:** Prior to initiating grading on the site the Applicant shall inform contractor of the potential for discovery of underground storage tanks (USTs), as well as former above ground storage tanks, or remnants thereof, in the subsurface. In the event USTs or former above ground storage tanks are encountered, work in the immediate area shall be halted and the Pasadena Fire Department shall be contacted to ensure that proper procedures are established and followed for their removal. A qualified environmental consultant shall be contacted to evaluate the soil conditions in the	Less Than Significant.

Table ES-1 (Continued)

Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Potential Environmental Impacts	Proposed Mitigation Measures	Level of Significance After Mitigation
The southern portion of the site may contain remnants of former above ground tanks or drums present in the subsurface. Unknown remnants of former above ground tanks or drums discovered during excavation of the site could potentially contain hazardous materials, which may create hazards to construction workers and is considered to be a potentially significant impact prior to mitigation.	area surrounding the tanks. Work in the area shall only continue with authorization from the Pasadena Fire Department.	
Construction. Chemical testing for metals on site revealed that concentrations of metals and TPH concentrations were below levels constituting the need for special handling, treatment or disposal of the soil cuttings. Nonetheless, it is possible that the soils in this area could yield contamination above and beyond what was identified in the Phase I and Limited Phase II ESA during project construction excavation and/or grading activities. This is considered to be a potentially significant impact. In addition, as the site has historically been improved with a mix of uses that potentially utilized and/or handled hazardous materials, the potential for unknown soil contamination on the site does exist. Thus, contaminated soils removed from the site during excavation could create hazards to construction workers, and result in a potentially significant impact prior to mitigation.	**E-4:** Prior to initiation of excavation and grading activities, the Applicant shall retain a qualified environmental consultant to prepare a soils management plan, which will be submitted to the City of Pasadena Building and Safety Division for review and approval. The soils management plan shall be implemented during excavation and grading activities at the site to ensure that any contaminated soils are properly disposed of off-site. The plan shall include but not necessarily be limited to the following: A qualified environmental consultant shall be present at all times during digging or grading activities to monitor compliance with the soils management plan and to actively monitor the soils and excavations for evidence of contamination. Any soil encountered during future excavation or grading activities that appears to have been affected by hydrocarbon or any other contamination shall be evaluated, based upon appropriate laboratory analysis, by a qualified environmental consultant prior to offsite disposal at a licensed facility. Soils in the southwestern corner of the site near Boring Location B-1, as identified in the Phase I and Limited	Less Than Significant.

Table ES-1 (Continued)

Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Potential Environmental Impacts	Proposed Mitigation Measures	Level of Significance After Mitigation
	Phase II ESA, shall be segregated and analyzed prior to off-site disposal. Identified contamination shall be removed to the extent practicable. This may require over-excavation in this area and further analysis of this soil to determine the extent of soil contamination. All detectable contaminated soils shall be properly handled and transported to an appropriately licensed disposal facility.	
Operation	No Mitigation Measures	Less Than Significant.
F. WATER SUPPLY		
As water supplies face challenges from drought, climate change, and pumping restrictions, both MWD and the City include conservation as a portion of the future strategy to ensure that water supplies are maximized, while consumer demand is minimized. Although Pasadena Water and Power would be able to supply the projected water demand, impacts to water supply are considered potentially significant without the implementation of conservation measures.	**F-1:** The water usage of the proposed building to be retained shall be reduced by 20 percent, in accordance with section 14.90.050 of the Pasadena Municipal Code. In order to demonstrate this reduction, the Applicant must submit a water-conservation plan for review and approval by the Planning Division. This plan is also subject to review and approval by the City's Water and Power Department and the Building Division before the issuance of a building permit. The plan must demonstrate the ability to limit water consumption to 80 percent of its originally anticipated amount. The project's irrigation and plumbing plans are also required to comply with the approved water-conservation plan. For this project, the original amount is 22,640 gallons/day and the required 20 percent reduction is 4,528 gallons/day. Plumbing permits required in order to complete this reduction shall be finalized prior to certificate of occupancy. **F-2:** The Applicant shall submit a detailed landscape plan that proposes the planting of "California Friendly" plants and the use of high efficiency irrigation	Less Than Significant.

Table ES-1 (Continued)

Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Potential Environmental Impacts	Proposed Mitigation Measures	Level of Significance After Mitigation
	technology. Landscape and irrigation plans shall be submitted for review with each phase of the project and shall be reviewed by the Design Commission in combination with the building plans.	

I. Introduction

I. INTRODUCTION

This document is a Final Environmental Impact Report (Final EIR) that has been prepared at the direction and under the supervision of the City of Pasadena (City) in accordance with the California Environmental Quality Act (CEQA) and the Guidelines for California Environmental Quality Act (CEQA Guidelines), as amended.[2,3] The proposed 16 E. California Project includes the demolition of the existing on-site structures and surface parking areas in order to develop a four-story,113,200 gross square foot office building with 255 parking spaces provided within a two-level subterranean parking garage. The project's background and the legal basis for preparing an EIR are described below.

1.0 PROJECT BACKGROUND

Pursuant to Section 15125 of the CEQA Guidelines, the Draft EIR evaluated the project in the context of the conditions that existed at the time the Notice of Preparation (NOP) for the Draft EIR was circulated by the City (October 2008). The Draft EIR was circulated for a 45-day public review period from March 17 to May 1, 2009. A public hearing was held by the Hearing Officer on April 15, 2009 to accept public comments on the Draft EIR. In addition, public meetings before the Transportation Advisory Commission (TAC), Historic Preservation Commission (HPC), and Planning Commission were held on April 2, 2009, April 6, 2009, and April 22, 2009 respectively, and accepted comments on the Draft EIR. The TAC and HPC meetings and the public hearing were publicly noticed within the Notice of Availability of a Draft EIR for the Project, which was circulated by the City in March 2009. Notice of the Planning Commission meeting was provided through the City's standard noticing procedures for public meetings.

An Initial Study was prepared for the project and distributed to the State Clearinghouse, Office of Planning and Research, responsible agencies, and other interested parties on October 1, 2008, for a 30-day circulation period, ending on October 30, 2008. The Initial Study provides a detailed discussion of the potential environmental impact areas and the reasons that each topical area is or is not analyzed further in the EIR. A public scoping meeting for the Draft EIR was held on October 16, 2008. The Initial Study and NOP are included as Appendix A of this EIR.

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[2] *Public Resources Code Section 21000-21178.*

[3] *California Code of Regulations Title 14, Chapter 3, Section 15000-15387.*

Impacts associated with the proposed Project were determined in the Initial Study not to be significant and include: aesthetics, agricultural resources, biological resources, geology and soils, hydrology and water quality, land use and planning, mineral resources, population/housing, public services, recreation, and utilities (wastewater, solid waste, and dry utilities such as gas and electricity).

2.0 PURPOSE AND LEGAL AUTHORITY

The proposed Project requires the discretionary approval of the City of Pasadena Hearing Officer. As such, the project is subject to the requirements of CEQA. In accordance with Section 15121 of the CEQA Guidelines, the purpose of the EIR is to serve as an informational document that:

> *"…will inform public agency decisionmakers and the public generally of the significant environmental effect of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project."*

The EIR has been prepared as a Project EIR pursuant to Section 15161 of the CEQA Guidelines. A Project EIR is appropriate for a specific development project. As stated in this section:

> *"This type of EIR should focus on the changes in the environment that would result from the development project. The EIR shall examine all aspects of the project including planning, construction, and operation."*

This Final EIR is to serve as an informational document for the public and the City's decision-makers. No final actions (approval or denial of the proposed Project) will be taken until the Final EIR has been reviewed, certified as complete, and considered by the appropriate decision-makers. Dates of meetings when the Project is scheduled to be considered will be published and officially noticed in accordance with all City requirements.

3.0 SCOPE AND CONTENT OF THIS EIR

The content of this EIR was established based on the findings in the Initial Study and public and agency input. In accordance with CEQA, the analysis in the EIR is focused on issues determined in the Initial Study to be potentially significant, whereas issues found in the Initial Study to have less than significant impacts or no impacts do not require further evaluation. Based on the analyses contained in the Initial Study, this EIR analyzes in detail the following environmental issues:

- Air Quality
- Cultural Resources (Historical Resources/Archaeological and Paleontological Resources)
- Noise
- Traffic and Circulation
- Hazards and Hazardous Materials
- Water Supply

The content and format of this EIR are designed to meet the current requirements of CEQA and the State CEQA Guidelines. The EIR is organized into sections summarized below:

- **Executive Summary,** presents a summary of the proposed project and alternatives, potential impacts and mitigation measures, and impact conclusions regarding significant unavoidable adverse impacts and effects not found to be significant.

- **Section I. Introduction,** describes the purpose and use of the EIR, provides a brief overview of the environmental review process, and outlines the organization of the EIR.

- **Section II. Project Description,** includes a discussion of the project location, details of the project, and the objectives of the project.

- **Section III. Environmental Setting,** includes an overview of the existing conditions or setting for each issues area prior to project implementation. In addition, this section identifies the cumulative projects in the City of Pasadena and adjacent areas, which is used for the cumulative analysis.

- **Section IV. Environmental Impact Analysis,** includes an analysis of each of the environmental issues outlined above and a detailed description of the existing conditions or setting for each issue area before project implementation, methods and assumptions used in the impact analysis, thresholds of significance, impacts that would result from the proposed project, and applicable mitigation measures that would eliminate or reduce significant impacts. This section also includes a discussion of cumulative impacts associated with the implementation of the proposed project and related projects in the area.

- **Section V. Alternatives,** evaluates the environmental effects of four feasible project alternatives, including the No Project Alternative. It also identifies the environmentally superior project.

- **Section VI. Other CEQA Considerations,** provides a discussion of the irreversible environmental changes to the natural environment resulting from the implementation of the proposed project. In addition, this section provides a summary of the proposed project's potential to lead to population growth and indirect implications of that growth on the City. This section also contains a summary of the issue areas that were

determined in the Initial Study for the project to result in less than significant environmental impacts. Furthermore, the significant unavoidable impacts that would result from project implementation are summarized in this section. Finally, an analysis of potential secondary effects that could result from the implementation of recommended mitigation measures is provided in this section.

- **Section VII. Comments and Responses,** provides the comment letters received on the Draft EIR, comments received at meetings and the public hearing on the Draft EIR, and the City's responses to each comment.

- **Section VIII. Mitigation Monitoring and Reporting Program,** provides the mitigation program that will be adopted by the City to ensure that if the project is developed, all recommended mitigation measures are implemented thereby minimizing identified environmental effects.

- **Section IX. Persons and Organizations,** lists the individuals involved in preparation of this EIR and organizations and persons consulted to ascertain supporting information to support the EIR analysis.

- **Section X. References,** identifies the documents (printed references) and individuals (personal communications) consulted in preparing this EIR.

- **Appendices,** present data supporting the analyses or contents of this EIR. The appendices include the following:

    - Appendix A: NOP/IS and NOP Comments
    - Appendix B: Air Quality Assessment Worksheets
    - Appendix C1:Cultural Resources (Historic Resources Search Results)
    - Appendix C2: Cultural Resources (Archaeological and Paleontological Resources Results)
    - Appendix D: Noise Worksheets
    - Appendix E: Traffic Study
    - Appendix F: Hazardous Materials

4.0 LEAD, RESPONSIBLE, AND TRUSTEE AGENCIES

The CEQA Guidelines define lead, responsible, and trustee agencies. The City of Pasadena is the lead agency for the project because it holds principal responsibility for approving

the project. A responsible agency refers to a public agency other than the lead agency that has discretionary approval over the project. A trustee agency refers to a state agency having jurisdiction by law over natural resources affected by a project. At this time, there are no responsible or trustee agencies for this project.

5.0 ENVIRONMENTAL REVIEW PROCESS

This EIR was prepared following input from the public, responsible, and affected agencies through the EIR scoping process. In accordance with Section 15063 of the State CEQA Guidelines, an Initial Study/ and a Notice of Preparation (NOP), were prepared and distributed to responsible agencies, affected agencies, and other interested parties on October 1, 2008. The NOP is a required document that must be submitted to the State Clearinghouse to officially solicit participation in determining the scope of the EIR. In turn, the State Clearinghouse distributed the NOP to involved public agencies. In addition, the NOP was posted at the Office of the Los Angeles County Clerk for 30 days. A public scoping meeting was held on October 16, 2008 to further solicit public input. A copy of the Initial Study and NOP are provided in Appendix A of this EIR.

As stated above, the Initial Study indicated that an EIR is required for the project. The EIR focuses on the environmental impacts identified as potentially significant during the Initial Study and scoping process, which includes air quality, cultural resources (historic, archaeological and paleontologic), traffic and circulation, noise, water supply and hazards and hazardous materials. All issues not evaluated in detail in Section IV of this EIR are addressed as required in the Initial Study.

The Draft EIR was circulated for 45 days for public review and comment in accordance with Section 15087 of the CEQA Guidelines. This Final EIR provides written responses to comments received on the Draft EIR. Written comments received from any State agencies will be made available to those agencies at least ten days prior to the public hearing during which the certification of the Final EIR will be considered. These comments and their responses are included in this Final EIR for consideration by the Hearing Officer.

Prior to approval of the Project, the City, as the lead agency and decision-making entity, is required to certify that the EIR has been completed in compliance with CEQA, that the proposed project has been reviewed and the information in this EIR has been considered, and that this EIR reflects the independent judgment of the City. As defined by Public Resource Code (PRC) Section 21081, CEQA also requires the City to adopt "findings" with respect to each significant environmental effect identified in the EIR. For each significant effect, CEQA requires the approving agency to make one or more of the following findings:

- The project has been altered to avoid or substantially lessen significant impacts identified in the Final EIR;
- The responsibility to carry out the above is under the jurisdiction of another agency; or
- Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final EIR.

In addition, when approving a project, public agencies must adopt a Mitigation Monitoring and Reporting Program (MMRP), describing the changes that were incorporated into the project or made a condition of project approval in order to mitigate or avoid significant effects on the environment in compliance with PRC Section 21081.6. The MMRP is included in Section VIII of this Final EIR. The MMRP is adopted at the time of project approval and is designed to ensure compliance with the measure during project implementation. Upon approval of the proposed project, the City will be responsible for the implementation of the proposed project's MMRP.

Environmental impacts may not always be mitigated to a less than significant level. When this occurs, impacts are considered significant and unavoidable. If the City concludes that the proposed project would result in significant and unavoidable effects, which are identified in this Final EIR, the City must adopt a "statement of overriding considerations" prior to approval of the proposed project in compliance with PRC Section 21081. Such statements are intended under CEQA to provide a written means by which the lead agency balances the benefits of the proposed project and the significant and unavoidable environmental impacts. Where the lead agency concludes that the economic, legal, social, technological, or other benefits outweigh the unavoidable environmental impacts, the lead agency may find such impacts "acceptable" and approve the project.

6.0 INTENDED USE OF THIS EIR

This EIR shall serve as the environmental document for the proposed actions associated with the 16 E. California Project, pursuant to CEQA and the State CEQA Guidelines. The purpose of this EIR is to assist the City of Pasadena, serving as the Lead Agency, in the decision-making process regarding this Project. In accordance with CEQA, as defined by PRC Code Section 21002.1, the intended uses of this EIR are to identify any significant environmental impacts resulting from implementation of the proposed project, indicate the manner in which these significant effects can be mitigated or avoided, and identify alternatives to the proposed Project.

7.0 CUMULATIVE PROJECTS

CEQA requires that EIRs analyze cumulative impacts. Section 15355 of the CEQA Guidelines defines cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." In addition, Section 15130 of the CEQA Guidelines indicates that the analysis of cumulative impacts need not be as in-depth as what is performed relative to the proposed project, but instead is to "be guided by the standards of practicality and reasonableness."

Cumulative impacts are anticipated impacts of the project along with reasonably foreseeable growth. According to Section 15130(b)(1) of the CEQA Guidelines, either one of the following elements is necessary to provide an adequate discussion of significant cumulative impacts:

- A list of past, present, and probable future projects producing related or cumulative impacts; or

- A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental planning document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact.

Known planned and pending projects in the City of Pasadena and adjacent areas are listed in Table III-1 on page III-9 and are shown in Figure III-1 on page III-10. These projects, as appropriate and pertinent, are considered in the cumulative analyses in Section IV, Environmental Impact Analysis.

II. Project Description

II. PROJECT DESCRIPTION

A. INTRODUCTION

The 16 E. California Project ("proposed Project") is proposed for development on a 0.97-acre (42,090 square foot) site located on the southeast corner of California Boulevard and Fair Oaks Avenue in the City of Pasadena, California. The project site is comprised of four lots (five Assessor's parcels) that are currently improved with a 6,525 square foot unoccupied building (formerly Monty's Steakhouse); a 2,720 square foot building, half of which was formerly occupied by the Grandview Palace Restaurant and the other half of which is currently occupied by the Body Healing Center massage therapy establishment; and a 3,390 square foot building occupied by M&G Auto Body. The remaining areas of the site are devoted to surface parking. The proposed Project includes demolition of the existing 12,635 square feet of on-site structures as well as related surface parking areas in order to develop a four-story, 113,200 gross square foot office building with 255 parking spaces provided within a two-level subterranean parking garage.

B. LOCATION AND BOUNDARIES

The project site is located in the southern portion of the City of Pasadena, approximately two miles east of the City of Glendale and 11 miles northeast of downtown Los Angeles as shown in Figure II-1 on page II-2. The northern terminus of the Pasadena Freeway (I-110), located approximately 0.6 miles southeast of the site, transitions into South Arroyo Parkway, which is located approximately 0.2 miles east of the site. The site is bounded by California Boulevard to the north, Edmondson Alley to the east, commercial uses to the south, and Fair Oaks Avenue to the west. Figure II-2 on page II-3 provides an aerial photograph of the project site.

The surrounding area is highly urbanized and characterized by a variety of commercial, office, and retail uses. The following describes the land uses surrounding the project site:

- North: The project site is bounded by California Boulevard to the north. There are single-story commercial uses located across California Boulevard between Fair Oaks Avenue and Edmondson Alley. A three-story medical office building is located at the northeast corner of Edmondson Alley and California Boulevard. Two-story commercial uses are located at the northwest corner of Fair Oaks Avenue and California Boulevard.

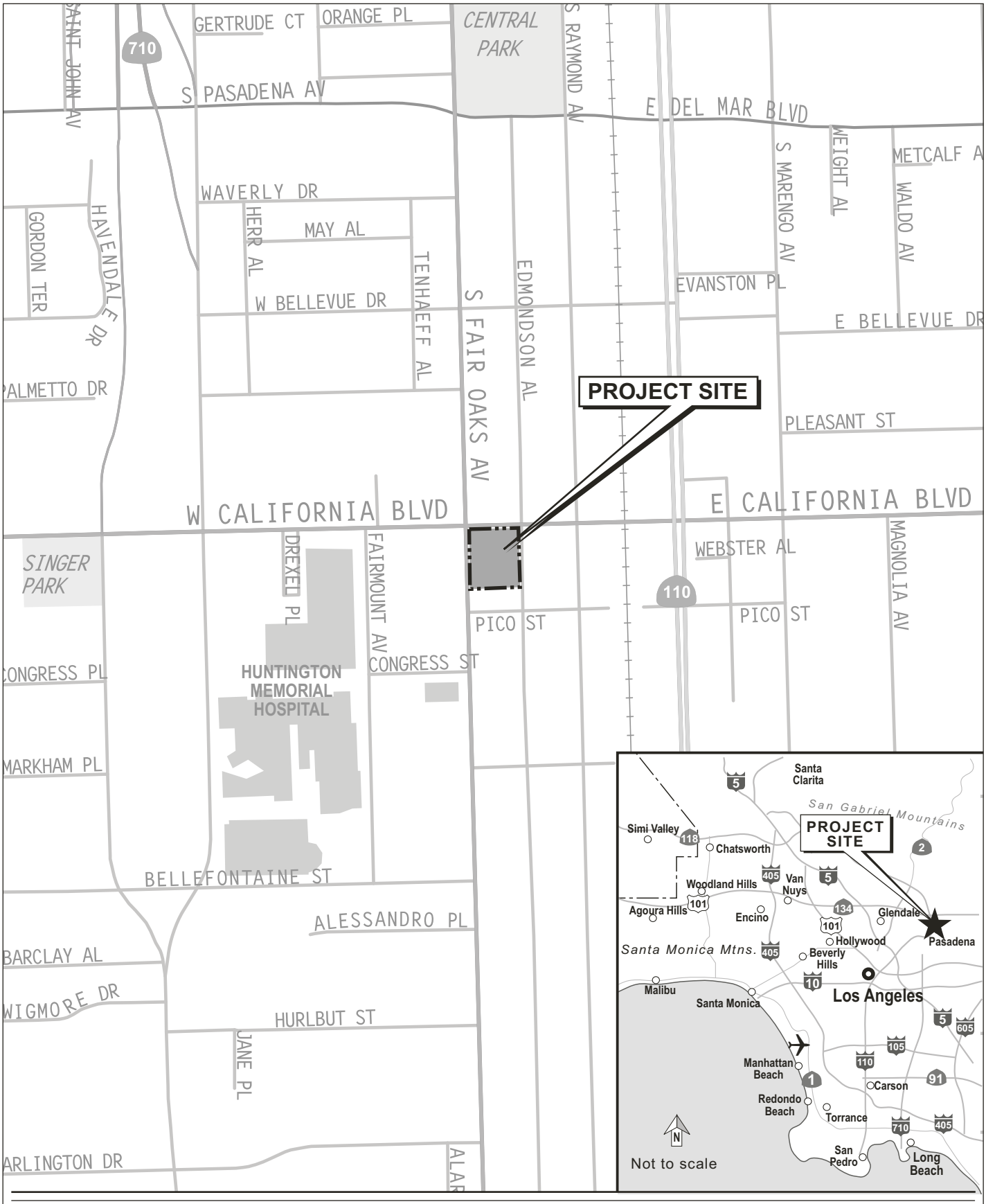

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Figure II-1
Regional and Vicinity Map

Source: PCR Services Corporation, 2008.

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Source: Virtual Earth, 2008; PCR Services Corporation, 2008.

Figure II-2
Aerial Photograph of Project Site

- East: Edmondson Alley bounds the site to the east. East and southeast of Edmondson Alley are a mix of one- and two-story industrial buildings, including a commercial laundry service operation.

- South: Immediately south of the project site is a one-story, fast-food restaurant (Burger King) with a surface parking lot, beyond which is Pico Street.

- West: Fair Oaks Avenue bounds the project site to the west. Across Fair Oaks Avenue to the west, the four-story Huntington Pavilion (outpatient services/medical office) is currently being constructed. The Pavilion extends along Fair Oaks Avenue from California Boulevard on the north to Congress Street on the south.

C. EXISTING SITE CONDITIONS

The 0.97-acre (42,090 square foot) rectangular site is approximately 780 feet above mean sea level (amsl). The project site consists of four lots (five Assessor's parcels) and is fully developed with a mix of commercial uses located within three one-story buildings with a total of 12,635 square feet of space. Along Fair Oaks Avenue is a one-story, 6,770 square foot building formerly occupied by Monty's Steakhouse restaurant. North of the Monty's building is a one-story, 2,720 square foot building that fronts both Fair Oaks Avenue and California Boulevard. This building was formerly occupied by a restaurant (Grandview Palace Chinese Restaurant) on the corner of Fair Oaks Avenue and California Boulevard as well as a massage therapy business (Body Healing Center) that fronts onto California Boulevard. The third building, located within the eastern-central portion of the site is a one-story, 3,390 square foot auto body shop. The remaining areas of the site are occupied by a surface parking lot with 75 spaces and limited amounts of landscaping. There are three small street trees along the Fair Oaks Avenue frontage and no street trees along the California Boulevard frontage.

Vehicular access to the site is provided via curb cuts with ingress/egress along Fair Oaks Avenue and California Boulevard. There is also access to the site via Edmondson Alley from either California Boulevard to the north or Pico Street to the south.

D. LAND USE DESIGNATIONS

The general plan land use designation for the site is South Fair Oaks Specific Plan (Specific Plan). The Specific Plan was adopted in April 1998 to facilitate transition of the area to a center for biomedical and research facilities. The Specific Plan emphasizes biotech development that builds on the assets of the adjacent Huntington Memorial Hospital and the nearby California Institute of Technology (Caltech). The Specific Plan allows for development

of up to 1,550,000 square feet of non-residential square footage within the Specific Plan area. 'Office – Administrative Business Professional,' which applies to the proposed Project, is a permitted land use within the Specific Plan area. The zoning designation for the site is IG-SP-2 (Industry, General, Specific Plan), which indicates that the site is within an industrial district (IG) and subject to the Specific Plan Overlay District (SP2). The site is within a quarter mile of the Metro Gold Line Fillmore Station and, therefore, falls within a Transit Oriented Development (TOD) area that is subject to the City's TOD standards. In addition, the site is located within the Enterprise Zone Technology Development Area (EZTDA), which provides economic incentives to businesses that have a Research and Development (R&D) use.

E. STATEMENT OF PROJECT OBJECTIVES

Section 15124(b) of the CEQA Guidelines states that a project description shall contain "a statement of the objectives sought by the proposed project." In addition, Section 15124(b) of the CEQA Guidelines further states that "the statement of objectives should include the underlying purpose of the project."

As set forth by the CEQA Guidelines, the list of objectives that the Project Applicant seeks to achieve for the proposed Project is provided below. As noted below, several of the project objectives support many of the goals, objectives, and policies set forth in the City's General Plan and the Specific Plan, all of which guide land use in the project area. The objectives of the proposed Project include the following:

- To promote TOD in the Specific Plan area through development of an urban office project consistent with the permitted density within the Specific Plan, in proximity to employment, the Gold Line and other transit opportunities.

- To provide an aesthetically attractive office project with pedestrian friendly and community enhancing features, including a large inviting landscaped plaza at the intersection of California Boulevard and Fair Oaks Avenue.

- To develop a project that provides substantial public open space and creates an attractive pedestrian environment.

- To enhance the appearance of the Specific Plan area by redeveloping an underutilized site containing obsolete and deteriorating buildings with a modern structure of exceptional architectural design.

- To provide a distinctive office project that will attract and retain businesses in Pasadena and promote economic diversity and jobs in the City.

- To enhance the Specific Plan area's prestige as a center for high-quality commercial development.

- To construct a state-of-the-art sustainable development, thereby reducing dependence on non-renewable resources, and that encourages recycling for both construction activities and long-term operation.

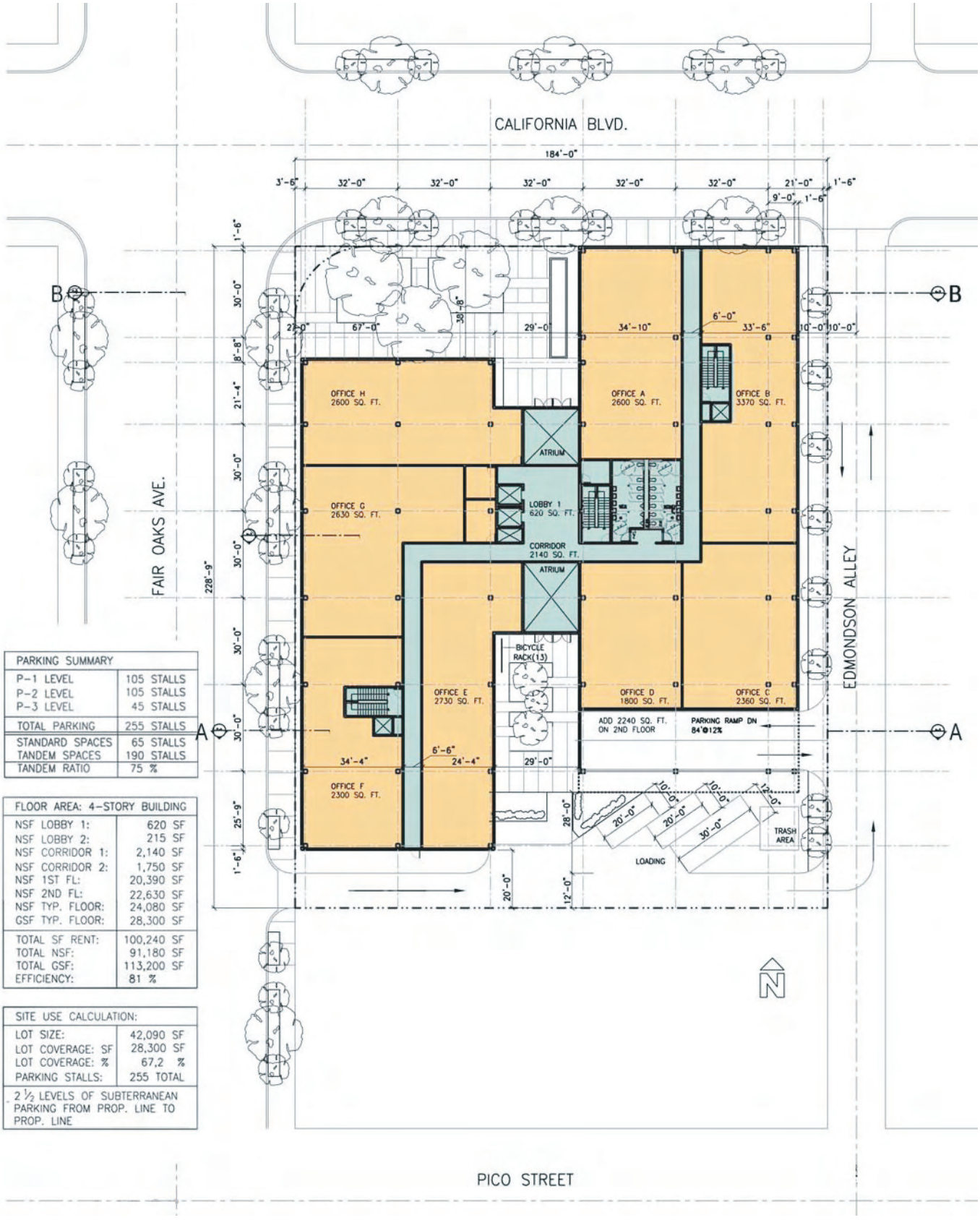
F. PROJECT CHARACTERISTICS

As described above, the project site is improved with three one-story buildings and associated areas of surface parking. Implementation of the proposed Project would require demolition of the existing buildings and clearing of the entire site in order to develop a four-story, 45-foot high office building with 255 parking spaces located within a two level subterranean parking garage. The building would also include architectural features and screening that may go up to an additional 14 feet to provide building continuity, attractive design, and screening for mechanical equipment. Figure II-3 on page II-7 illustrates the site plan/ground floor plan for the proposed Project. Figure II-4 on page II-8 illustrates a typical floor plan for the second through fourth floors. Figures II-5 and II-6 on pages II-9 and II-10, respectively, illustrate the proposed building elevations. The following provides a detailed description of the proposed Project characteristics.

Building Area

Table II-1 on page II-11 provides a summary of the proposed floor area within the proposed office building. As shown in Table II-1, the Project is proposed to include 113,200 gross square feet of office floor area, of which 100,240 square feet would be rentable office space. The proposed Project would include 91,180 net square feet of office space. Overall, the proposed Project would result in a net increase of 100,565 gross square feet of floor area when compared to existing conditions.

As shown on Figure II-3, the proposed office building footprint would occupy various portions of the site due to the irregular shape of the building. As shown in Figure II-3, the ground floor would include a large, centrally located lobby. Office spaces in various configurations would be dispersed throughout the building on the ground floor. As shown in Figure II-4 on page II-8, the upper floors (levels 2-4) would include smaller lobby spaces of approximately 215 square feet with the remainder of the floors occupied by office space.



PARKING SUMMARY	
P-1 LEVEL	105 STALLS
P-2 LEVEL	105 STALLS
P-3 LEVEL	45 STALLS
TOTAL PARKING	255 STALLS
STANDARD SPACES	65 STALLS
TANDEM SPACES	190 STALLS
TANDEM RATIO	75 %

FLOOR AREA: 4-STORY BUILDING	
NSF LOBBY 1:	620 SF
NSF LOBBY 2:	215 SF
NSF CORRIDOR 1:	2,140 SF
NSF CORRIDOR 2:	1,750 SF
NSF 1ST FL:	20,390 SF
NSF 2ND FL:	22,630 SF
NSF TYP. FLOOR:	24,080 SF
GSF TYP. FLOOR:	28,300 SF
TOTAL SF RENT:	100,240 SF
TOTAL NSF:	91,180 SF
TOTAL GSF:	113,200 SF
EFFICIENCY:	81 %

SITE USE CALCULATION:	
LOT SIZE:	42,090 SF
LOT COVERAGE: SF	28,300 SF
LOT COVERAGE: %	67.2 %
PARKING STALLS:	255 TOTAL
2 ½ LEVELS OF SUBTERRANEAN PARKING FROM PROP. LINE TO PROP. LINE	

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0 48 96 Feet

Figure II-3
Site Plan/Ground Floor Plan

Source: AC Martin Partners, Inc., 2008.

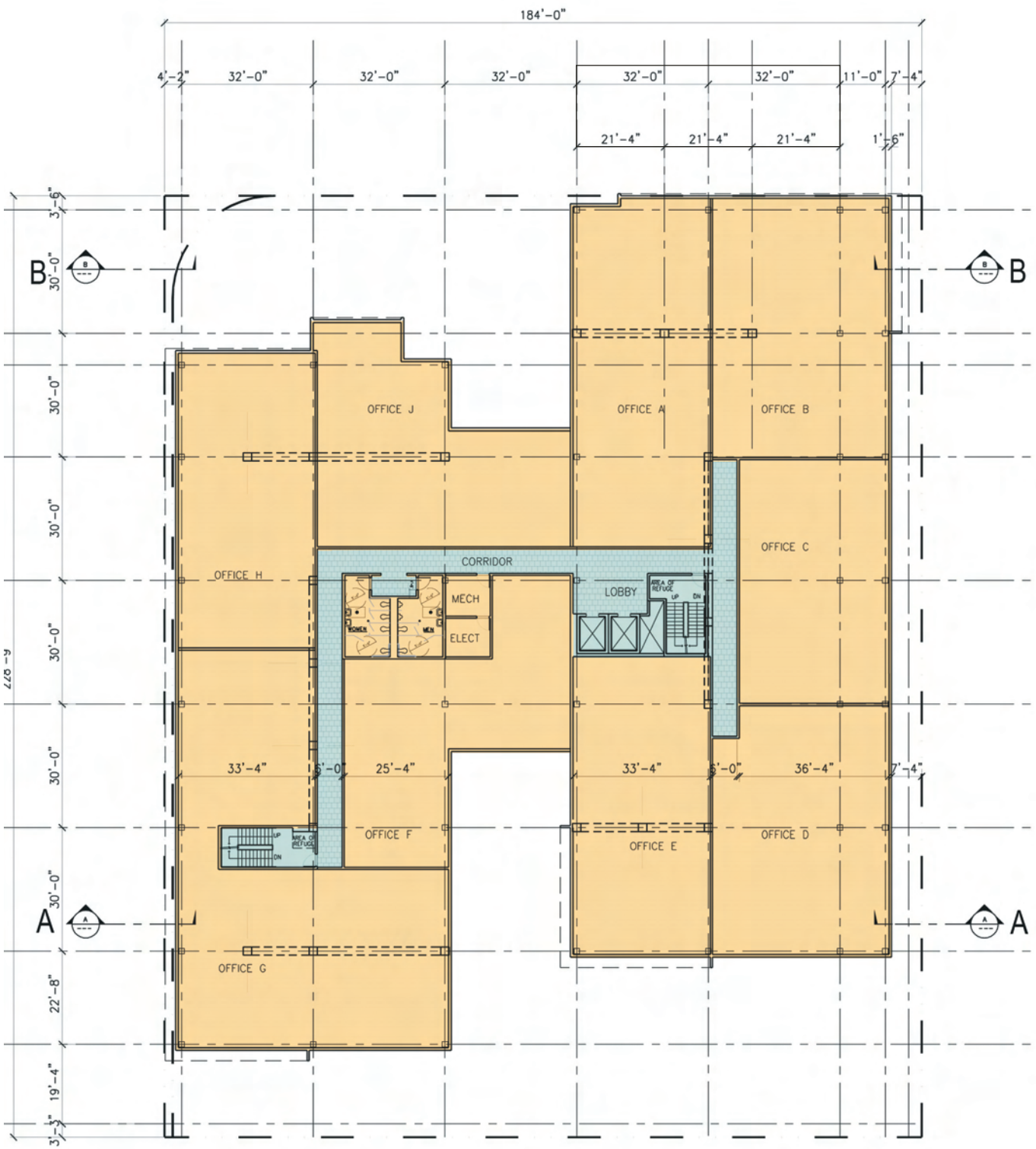

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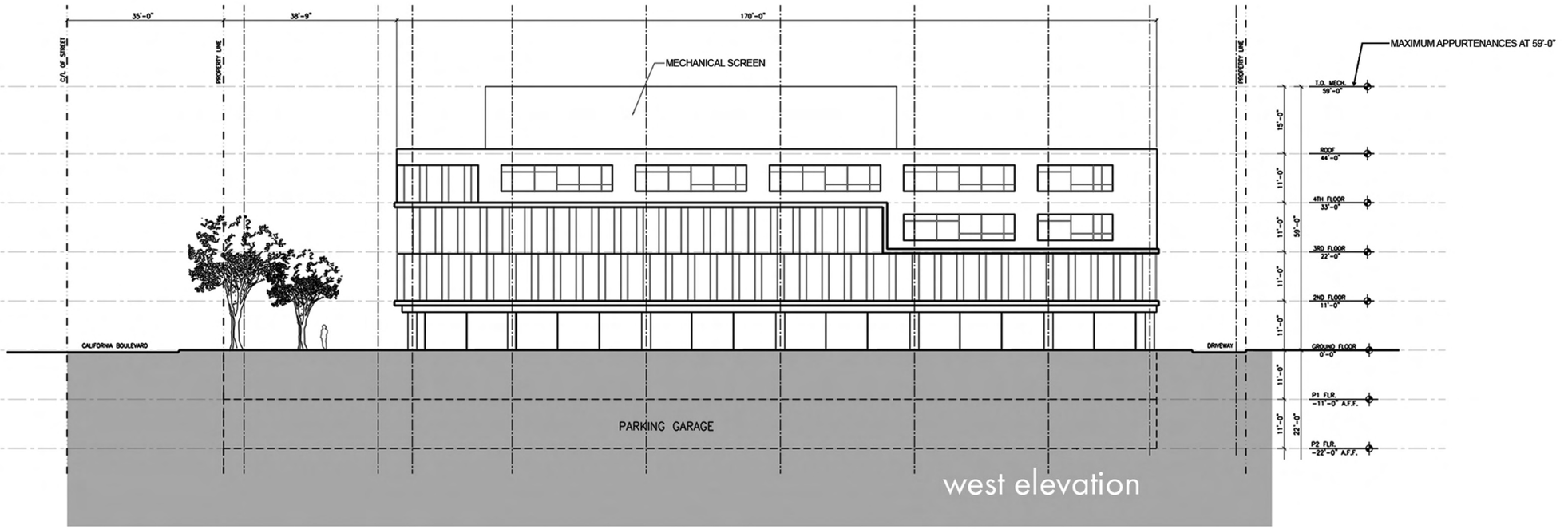
Figure II-4
Typical Floor Plan (2-4)

Source: AC Martin Partners, Inc., 2008.



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0 27 54 Feet

Source: AC Martin Partners, Inc., 2008.

Figure II-5
East and West Building Elevations

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0 27 54 Feet

Source: AC Martin Partners, Inc., 2008.

Figure II-6
North and South Building Elevations

Table II-1

Proposed Project Summary

Use		Square Feet (sf.)[a]
Existing Conditions		
Monty' Steakhouse Building (Unoccupied)		6,525 sf.
Grandview Place Restaurant and Massage Parlor (Unoccupied)		2,720 sf.
M&G Auto Body (Occupied)		3,390 sf.
	Total	12,635 sf.
Proposed Project		
Lobby 1st Floor		620 net sf.
Lobby 2-4 Floors		215 net sf.
Corridor 1st Floor		2,140 net sf.
Corridor 2-4 Floors		1,750 net sf.
1st Floor Total		20,390 net sf.
2nd Floor Total		22,630 net sf.
3-4 Floors		24,080 average net sf.
	Total	91,180 net sf.
	Total	113,200 gross sf.
Total Rentable sf.		100,240 sf.
Difference Between Existing Conditions and Project		100,565 gross sf.

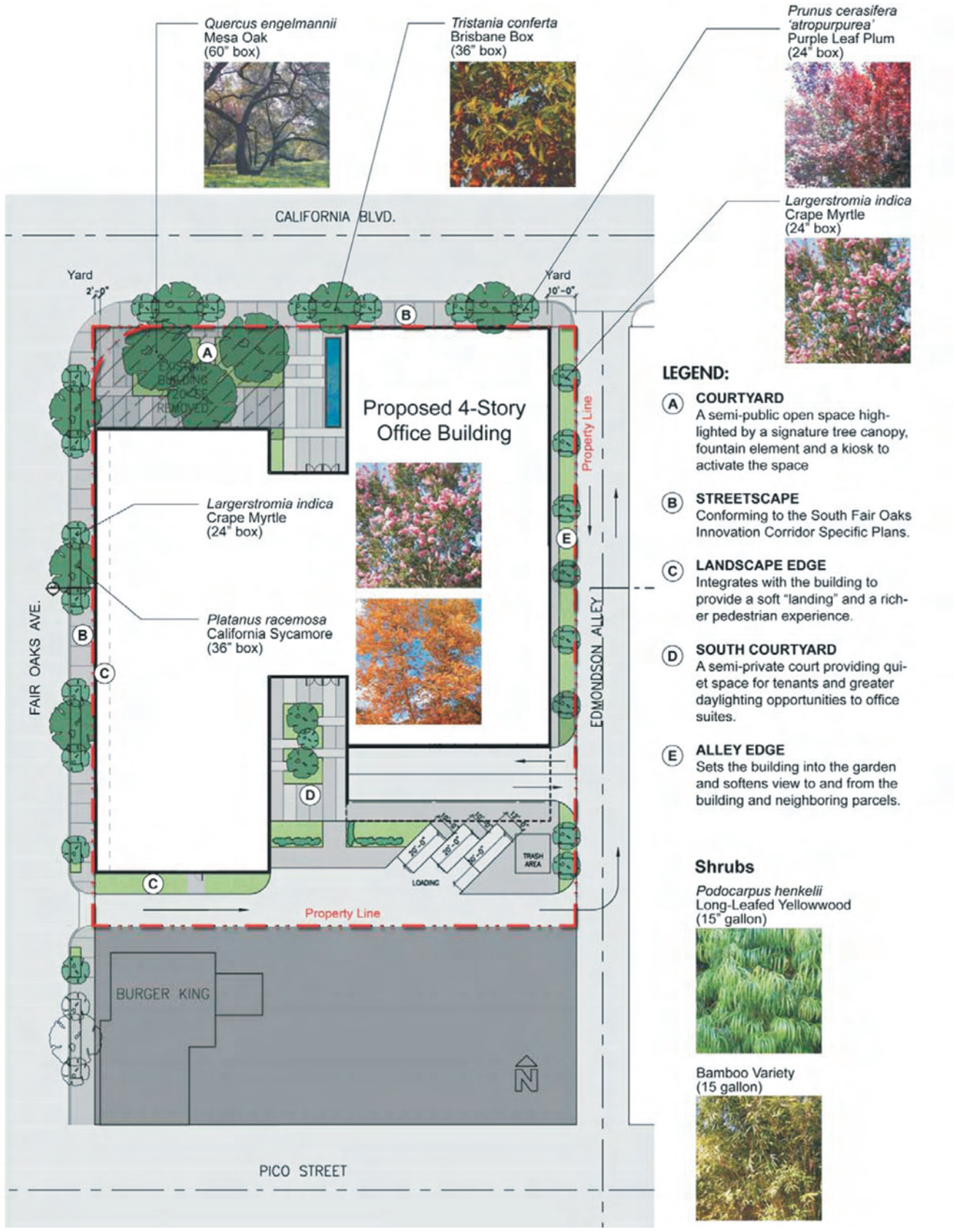
Notes:

[a] *sf.= square feet. Square footages are approximate.*

Source: AC Martin Partners, Inc. and PCR services Corporation, August 2008.

Open Space and Landscaping

To promote a pedestrian friendly environment the proposed Project includes two distinct open space areas. As shown in Figure II-7 on page II-12, a plaza is proposed at the corner of Fair Oaks Avenue and California Boulevard with frontage on both streets. This space would feature landscaping, including large mature trees, decorative paving, seating areas and a water feature. The plaza would serve to activate pedestrian use at the corner while providing an inviting public plaza at the entry to the building**.** A smaller courtyard would be located in the southern-central portion of the site and would feature several trees and seating areas. Overall, the open space proposed would total approximately 5,500 square feet, including a 4,000 square foot plaza at the Corner of California Boulevard and Fair Oaks Avenue, and a 1,500 square foot courtyard to the south of the lobby, which would exceed the Specific Plan requirement that a minimum 300 square foot open space area be provided with a minimum dimension of 15 feet.



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0 50 100 Feet

Figure II-7
Landscape Plan

Source: AC Martin Partners, Inc., 2008.

As shown in Figure II-7, in addition to landscaping within the open space areas, landscaping is proposed along the eastern and southern perimeters of the site and street trees along the northern and western portions of the site. The landscape plan includes numerous planters with trees, shrubs, and other ornamental plantings with low to moderate water demand that would be located to provide a varied planting, but continuous landscape theme throughout the project site. Additionally, there are three small street trees located along the Fair Oaks Avenue frontage and no street trees located along the California Boulevard frontage. Subject to proper approval, if any street trees are removed during construction along Fair Oaks Avenue they would be replaced, and all street trees and street furnishings would be installed in accordance with Specific Plan requirements.

Architecture/Design

A contemporary architectural style is proposed for the office building. The building would incorporate a concrete frame with post-tensioned concrete floor slabs. The building's exterior would include a combination of painted, exposed concrete, large (colored) ceramic panels, and high-efficiency vision glass panels. The building is designed in a "slip-H" fashion to enhance the open space the proposed Project offers with a landscaped public plaza serving as a main feature of the site. The slip-H design and building features provide for building articulations, enhancement of open space and vistas for pedestrians and drivers, and massing efficiencies by breaking up massing and maximizing open space. The design would provide greater open space than what is required by the Specific Plan.

Access and Parking

As shown on Figure II-8 on page II-14, the parking for the proposed Project would be accessed from Edmondson Alley. The proposed access to the site has been configured to provide over 180 feet of on-site queuing, thus ensuring that vehicular queuing would occur on-site rather than along Fair Oaks Avenue or California Boulevard during peak traffic hours. In addition to providing on-site queuing, designing the parking structure off of Edmondson Alley provides multiple opportunities for site ingress and egress. Vehicles can access Edmondson Alley off of Pico Street, California Boulevard or Fair Oaks Avenue. They can leave the site via California Boulevard or Pico Street to access various other streets, thus providing multiple options after exiting the site, as shown on Figure II-8.

The main pedestrian access to the site would be from California Boulevard, as shown in Figure II-8. Secondary pedestrian access to the site would be provided along the south side of the building, with the building entryway serving as a transition between the public plaza and the courtyard along the south side of the building.

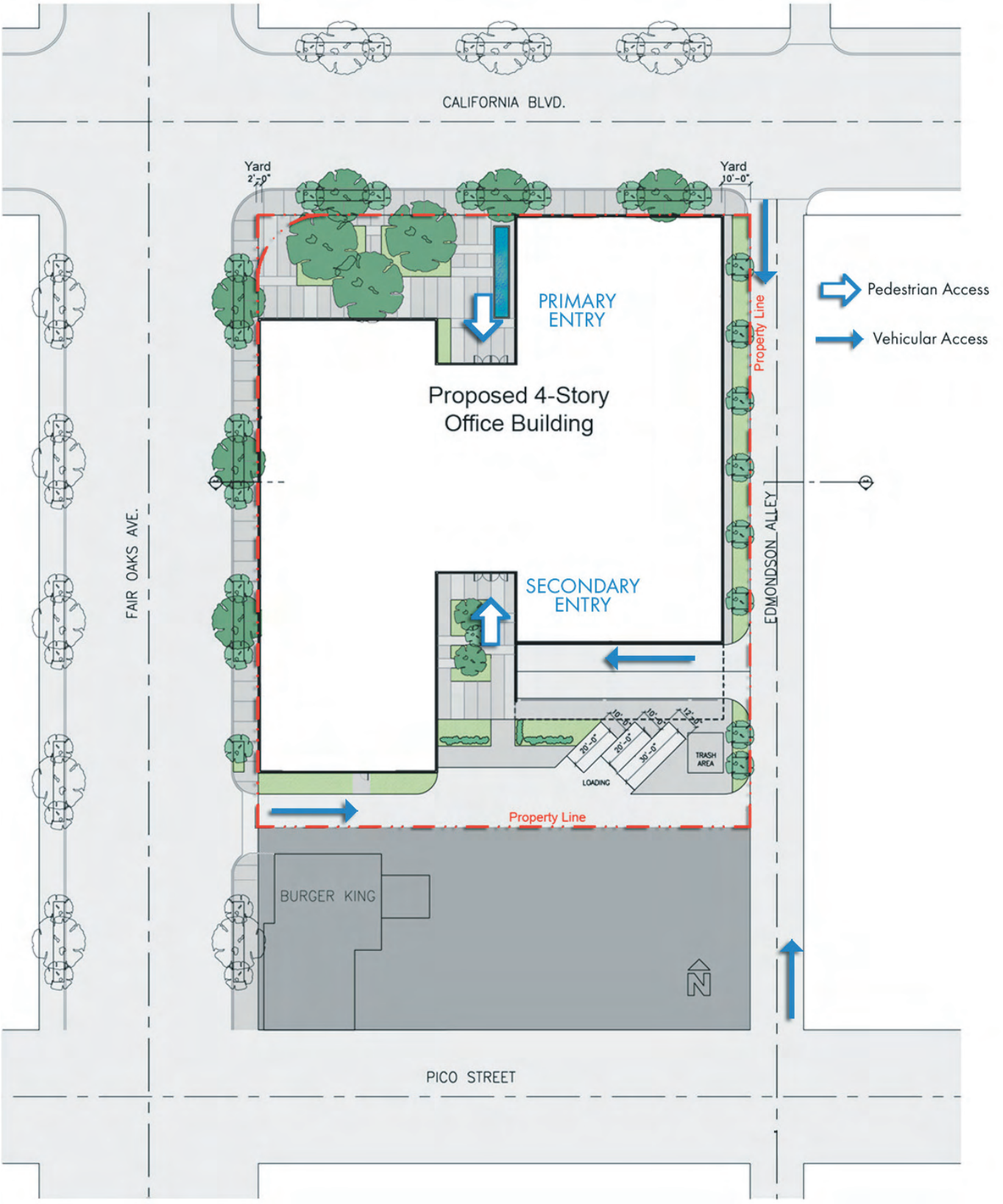

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Figure II-8
Site Access

Source: AC Martin Partners, Inc., 2008.

A loading area would be located along the ingress driveway from Fair Oaks Avenue. Delivery vehicles would then proceed to exit the site from Edmondson Alley.

The proposed Project would provide parking consistent with the requirements of the City municipal code. The proposed Project is designed to provide 255 parking spaces within a two-level subterranean parking garage, which would meet the reduced TOD parking requirement for the Project of 2.25 spaces per 1,000 square feet of development. Thus, the total number of net new parking spaces on site would be 180 spaces. The proposed Project also includes 13 spaces for bicycle parking, which meets the requirement for non-residential structures to provide bicycle parking in an amount equal to five percent of the total parking required for motor vehicles.

The proposed Project would provide a two-foot dedication along California Boulevard, a two-foot dedication along Fair Oaks Avenue, and a four-foot dedication along Edmondson Alley in order to appropriately widen adjacent roadways and sidewalks.

Lighting and Security Features

The proposed Project would include exterior low level lighting on buildings and along the site perimeters for security and wayfinding purposes. In addition, exterior low level lighting to accent architectural and landscaping elements would be incorporated throughout the site. Such lighting would be directed toward areas to be lit to prevent spill-over onto adjacent uses. The proposed Project would incorporate a card access system to control parking entry, building entry (after hours) and access to individual floors via the elevators. A card-accessed controlled roll down grill would secure the parking garage after normal operating hours. Access to the south courtyard/south building entry would be card-controlled after hours.

Sustainable Design Features

The proposed Project would be designed to qualify for a Leadership in Energy and Environmental Design (LEED) energy efficiency certification and would be developed in compliance with the City Green Practices Ordinance (PMC 14.90). During construction, all demolition and construction debris would be recycled in accordance with the City's Construction and Demolition Waste Ordinance, as cited in Chapter 8.62 of the PMC. Further, up to 75 percent of all demolition wastes would be recycled. A minimum of 20 percent of construction materials would be regional and a dust and storm water runoff control program would be incorporated and enforced throughout the construction process. As part of the building erection process, fly-ash, an industrial by-product, would be recycled and utilized as a concrete additive. The site's location not being near parkland, flood areas, or farmland, but within an urban area with existing infrastructure within 0.5 mile of at least 10 basic services and pedestrian access is also consistent with sustainable design and location practices.

The proposed office building would feature numerous sustainable design features that may include, but are not limited to: high efficiency lighting, exterior lighting designed to create minimal valent light and automatically timed, individual lighting controls for a minimum of 50 percent of the building occupants, increased fresh air ventilation to reduce the use of mechanical heating/cooling air conditioning/circulation, low air pollution (i.e., volatile organic compounds) emitting material and adhesives, increased insulation, mechanical systems that meet ASHRAE Standard 90.1-2004 (i.e., high efficiency HVAC system and distribution, central hot water boiler system, high efficiency glass system, etc.) and a highly reflective "cool roof" system, landscaping, subterranean parking to minimize heat island effects. Also, an on site recycling program (paper, glass, aluminum, etc.) would be established for use by the office tenants. Further, the proposed Project would incorporate active water conservation measures, including, but not limited to: low flush toilets, dual flush toilet/urinal controls; time-control sink faucets; drip irrigation systems for all landscape areas with a master environmental control system; roof storm water runoff filtered through selected planters to provide plant irrigation prior to entering the storm water runoff system; detention basin/rock pocket infiltration systems, low water use landscape materials with heavy surface mulch to reduce evaporation; and maintenance specifications that require low water use, including a motorized brush machine for regular cleaning of the exterior plaza, courtyard and parking garage (no hose off allowed).

The site is also located within a TOD area. As such, the proposed Project is required to meet the TOD standards in Section 17.50.340 of the PMC which encourage the use of transit and walking through building design standards and reduced parking requirements, as discussed above. In response to the TOD requirements, the Project is proposing to replace the site's automobile intense uses, which consist of an auto-body repair shop, restaurants and a massage parlor with a LEED certified office building. The project site is located in a transit rich area, with close access to the Gold Line and Bus Lines 20, 51, and 70. Light rail is also located within 0.5 mile of the site. To encourage the use of pedestrian activity and thereby enhance transit usage, the proposed Project is proposing a public plaza, as described above, which would feature landscaping and seating amenities for pedestrians. The Project's open space would exceed the minimum requirements set forth by the PMC. In addition, bicycle racks would be provided at the entry level to the new office building and landscaping would be provided throughout the site to encourage pedestrian activity. Showers would also be made available for employees. Further, parking, including spaces for carpools and van pools, would be provided in accordance with PMC requirements for TOD, as discussed above.

G. CONSTRUCTION AND PHASING

It is anticipated that construction of the proposed Project would commence in Spring 2009 and last approximately 19 months. As discussed above, the three on-site buildings and surface parking areas would be removed as part of the Project. Demolition of the existing

structures would occur over approximately one month. Following demolition of the on-site structures, excavation and grading of the site, including the subterranean portion of the parking garage, would occur for approximately two months. It is anticipated that approximately 36,560 cubic yards of soil would be hauled away during excavation of the site. Building construction would then occur for approximately 16 months. Assuming this construction time frame, office spaces would begin occupancy in late 2010, with full building occupancy determined based on market conditions.

H. INTENDED USE OF THE EIR AND ANTICIPATED APPROVALS

This EIR is a Project EIR, as defined by Section 15161 of the CEQA Guidelines and, as such, serves as an informational document for the general public and the proposed Project's decision-makers. The City has the principal responsibility for approving the proposed Project and, as the Lead Agency, is responsible for the preparation and distribution of this EIR pursuant to CEQA Guidelines Section 21067. This EIR shall be used in connection with all other permits and all other approvals necessary for the construction and operation of the proposed Project. This EIR shall be used by the City's Department of Planning and Development, Building Division, Department of Public Works, Department of Transportation, the City's Fire and Police Departments and other responsible public agencies that must approve activities undertaken with respect to the Project. In addition, the architectural design of the Project is subject to review and approval by the Design Commission.

Approvals required for development of the Project may include, but are not necessarily limited to the following:

- Minor Conditional Use Permit (CUP) for Tandem Parking (Hearing Officer);
- Minor CUP for Transit Oriented Development (Hearing Officer);
- Design Review (Design Commission);
- Construction Staging and Traffic Management Plan (Department of Public Works);
- Demolition, grading, foundation, and building permits; and
- Such additional actions as may be determined necessary.

III. General Description of Environmental Setting

III. GENERAL DESCRIPTION OF ENVIRONMENTAL SETTING

The project site is located in the southern portion of the City of Pasadena, in a highly urbanized regional area. The following is a summary of the general environmental setting around the proposed project site. More complete and specific discussions are contained under the corresponding sections in Section IV, Environmental Impact Analysis, of this EIR.

A. OVERVIEW OF ENVIRONMENTAL SETTING

Air Quality

The proposed project is located within the South Coast Air Basin, which is an area of high pollution potential.[3] Pollutant concentrations in the Basin vary with location, season, and time of day. Ozone concentrations, for example, tend to be lower along the coast, higher in the near inland valleys, and lower in the far inland areas of the Basin and adjacent desert. Over the past 30 years, substantial progress has been made in reducing air pollution levels in Southern California.[4] With regard to ambient air quality standards, the Basin remains in nonattainment status for ozone, PM_{10} and $PM_{2.5}$, however.

The project site is located within an estimated cancer risk zone of 750 to 1,000 cases per one million population for lifetime exposure to ambient air, comparable with other inland areas in Los Angeles County.

Cultural Resources (Historic)

The building retains its original location but its integrity of design, materials, and workmanship have been substantially compromised by later alterations. The historic commercial setting of the property is no longer extant. As a result, the subject property is an isolated example of its property type within its local context. Architecturally, the property is heavily altered from its original construction. Only the rear (east) façade exhibits the building's original

[3] *See Ralph W. Keith, Senior Meteorologist, SCAQMD,"A Climatological/Air Quality Profile: California South Coast Air Basin" (Nov. 1980), http://www.arb.ca.gov/research/apr/reports/l6016.pdf (in CARB's online library; accessed Aug. 2008), pp. 87-95.*

[4] *See SCAQMD, "1996 Air Quality and Trends," p. 1; "2002 Air Quality and Trends," p. 6; and other reports available at http://www.aqmd.gov/smog/AIrQualitybyYear.htm.*

1920s construction with the remainder covered by mid-1950s additions. The Monty's restaurant building meets the 50-year age consideration of the National Register and the 45-year age guideline for the California Register and is evaluated below. The site is also eligible for inclusion as a Pasadena monument or landmark. However, the building does not appear potentially eligible as a historical resource under any of the applicable National Register of Historic Places, California Register of Historic Properties, or City of Pasadena criteria. Pursuant to Section 15064.5(a)(2)(3) of the CEQA Guidelines, the building is not considered a historical resource.[5] However, the building's examples of pole-mounted and wall-mounted neon signage appear eligible and potentially eligible under Section 17.62.040.D of the Pasadena Municipal Code. Therefore, pursuant to Section 15064.5(a)(2)(3) of the CEQA Guidelines, the building is not considered a historical resource and is a non-contributing component of the subject property, but the pole-mounted and wall-mounted signage are considered historical resources and are contributing components of the subject property.

Cultural Resources (Archaeo and Paleo)

(1) Paleontological Resources

The paleontological resources records search conducted for the project site indicates that the project site is underlain by surficial deposits of the younger Quaternary Alluvium.[6] These deposits typically do not contain significant vertebrate fossils, at least in the uppermost layers. However, at unknown, but possibly relatively shallow depths, there are older Quaternary Alluvium deposits which are very likely to contain significant vertebrate fossils. The closest vertebrate fossil locality in these older Quaternary deposits is LACM (CIT) 342, located 3.5 miles west of the project site, near the intersection of Eagle Rock Boulevard and York Boulevard. This locality produced fossil specimens of turkey (*Parapavo californicus*), and mammoth (*Mammuthus*), at depths of 14 feet below the surface. As a result of these findings, the LACM concludes that the older Quaternary Alluvium deposits located within the project site are likely to contain significant vertebrate fossils. Therefore, the potential to encounter buried paleontological resources within these deposits on the project site is considered high.

(2) Archaeological Resources

Results of a cultural resource records search conducted indicate that the project site has not been previously surveyed for cultural resources. As a result, no known resources have been

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[5] *CEQA Guidelines. Section 15064.5(a)(2)-(3).*

[6] *Paleontological Records Search for the Proposed Cal Fair Oaks Project, in the City of Pasadena, Los Angeles County. Prepared by Samuel A. McLeod, Ph.D., Vertebrate Paleontology Section, Natural History Museum of Los Angeles County, October 29, 2008, for PCR Services Corporation, Santa Monica, CA.*

identified on the site. Eleven cultural resource studies have been conducted within a half-mile radius of the project site. None of these previous investigations identified archaeological resources on or within a half-mile radius of the project site. No historic properties of archaeological nature in the National Register were identified within a half-mile radius of the site.

Results of the Sanborn Map analysis indicate that there is potential for the project site to preserve historical-period archaeological resources, such as building foundations and associated trash deposits. The potential to encounter these resources during implementation of the project is low to moderate. This is a result of the heavy grading and other ground-disturbing activities that have occurred in the past that likely would have displaced any intact resources that existed prior to disturbance.

(3) Sacred Lands File Search and Native American Consultation

A Sacred Lands File (SLF) records search conducted for the project site failed to indicate the presence of Native American cultural resources in the immediate project area. On November 12, 2008 letters of inquiry were sent to Native American groups affiliated with the project vicinity. The letters requested information the contacts may have about the potential for the proposed project to affect Native American or prehistoric resources. PCR Services received one response from Sam Dunlap, Tribal Secretary of the Gabrielino Tongva Nation, indicating that the project site is in close proximity (1 mile east) of Arroyo Seco River which was exploited prehistorically for its food and water resources and that a Native American burial was encountered several feet below the ground surface approximately 1.5 miles southwest of the project site along Arroyo Seco River. Therefore, the project site has an "increased potential" to contain buried prehistoric or Native American resources.

Noise

(1) Noise-Sensitive Receptors

Existing noise-sensitive land uses (i.e., residential and hospital) in the project vicinity include single family residential homes located along Concordia Court, north of East California Boulevard approximately 450 feet northwest of the project site; an existing hospital (Huntington Memorial Hospital) located in the vicinity of the project site, on Fairmount Avenue, south of East California Boulevard approximately 500 feet west of the project site; and single- and multi-family residential uses located along Pico Street approximately 900 feet east of the project site.

(2) Ambient Noise Levels

The predominant noise source surrounding the project site is roadway noise from California Boulevard to the north and Fair Oaks Avenue to the west. Secondary noise sources include existing general commercial and retail-related activities, loading dock/delivery truck activities, trash compaction, refuse service activities, and railroad train operation. Based on noise measurement data, the existing ambient noise levels ranged from 61 dBA to 63 dBA ($L_{eq(15\text{-}minute)}$) at the nearby noise sensitive receptors, and 70 dBA at the project site. The calculated CNEL for the analyzed roadway segments as a result of existing traffic volumes ranged from 60.7 dBA CNEL to 69.7 dBA CNEL at a distance of 25 feet based on surface-street traffic volume only. Noise levels at the nearest sensitive receptors to each analyzed roadway segment are within normally acceptable noise levels at all residential areas, i.e., 70 dBA or lower for single-family residential, multi-family residential, and mixed commercial/residential use.

(3) Existing Ground-Borne Vibration Environment

Vibration sensitive receptors closest to the project site include the residential uses (along Concordia Court north of California Boulevard) and the Huntington Memorial Hospital (along Fairmount Avenue south of California Boulevard), approximately 450 feet and 500 feet west of the project site, respectively. Based on the FTA's data, the project site is likely subject to ground vibration from adjacent road traffic, including California Boulevard and Fair Oaks Avenue, of 0.001 inch per second RMS. This vibration level is considered well below the perception threshold of 0.01 inch per second (RMS) for ground-borne vibration per Los Angeles County Noise Regulation. In addition, based on FTA's data for light rail system, the ground-borne vibration generated by the Metro Gold Line would be well below the perception threshold at the project site.

Traffic

The year 2008 traffic volumes were developed from 2004-2007 traffic counts. These volumes were factored by a 1.5 percent annual growth rate to approximate 2008 volumes.[7] The Intersection Capacity Utilization (ICU) method of intersection analysis, per the City of Pasadena's requirements for analyzing intersection conditions, was used to determine the intersection V/C ratio and corresponding LOS for each study intersection.

Nine study intersections were analyzed in the project area. All study intersections operate at a Level of Service (LOS) D or better during both of the peak hours, with the exception

[7] *1.5 percent annual growth rate from Transportation Impact Review Current Practice & Guidelines, City of Pasadena, 2005.*

of the intersection of Pasadena Avenue and California Boulevard, which operates at LOS E during the PM peak hour.

Hazards

(1) Federal, State and Local Records Review

Environmental agency databases were reviewed as part of the Phase I and Limited Phase II ESA to ascertain whether the project site or any properties within a one mile radius of the project site were listed on local, State, or Federal databases. Numerous sites appeared on the databases review.[8] However, none are expected to present a concern to the project site.

(2) Potential Sources of Hazardous Substances

(a) Underground Storage Tanks

No physical evidence or documentary evidence indicates USTs have existed on the project site. However, due to the extensive redevelopment of the site over the years, it is unlikely, but nonetheless a small probability that any USTs exist on the site.

(b) Aboveground Storage Tanks and Drums

No physical evidence or documentary evidence indicates aboveground storage tanks or drums exist on the project site. However, the Phase I and Limited Phase II ESA states that small containers of hazardous chemicals are present at the auto body shop. The southern portion of the site was formerly used as a junk yard and plumbing storage yard prior to the 1970s. Due to these uses, it is possible that buried drums or remnants of such structures may be present in the subsurface.

(c) Asbestos

ACM materials were found in the flooring of the Grandview Palace Restaurant. No other samples tested positive for ACM. However, the roofs of the buildings as well as some of the exterior fire doors could also be source of ACM insulation. The auto body shop building may also contain ACM.

[8] *Please refer to Section 4.0, Records Review, in the Phase I and Limited Phase II ESA for a listing of sites identified in the database review.*

(d) Lead Based Paint

LBP materials were found on various interior and exterior surfaces in both buildings on the western portion of the site. The auto body shop building may also contain LBP.

(f) PCBs

A pole-mounted transformer is located near the southeastern corner of the auto body shop. No stains or other evidence of leaks from this transformer were observed around the transformer. No other known PCB sources are known to occur on the project site. Nonetheless, there is a small probability that unknown PCBs could exist on the site.

(e) Contaminated Soil

In April 2007, soil samples taken in the southwestern portion of the site revealed a detectable concentration of TPH, which was considerably low and below concentrations that are typically considered actionable by regulatory agencies. The findings likely represent a relatively small fuel spill that occurred during development/redevelopment of the site.

Sources deemed not a potential concern are discussed further in Section IV. E. Hazardous Materials.

Water Supply

(1) Overview of Water Supplier - Pasadena Water and Power (PWP)

The project site is within PWP's service area. PWP is the water supply service provider to City of Pasadena residents and businesses, as well as to a limited number of customers within adjacent unincorporated areas. Water supply consists of 40 percent groundwater and 60 percent imported water, although the exact proportion can vary from year to year. PWP attempts to maximize its groundwater use each year and then utilizes imported water purchased from MWD to meet any remaining demand.

Based on the supply and demand comparisons, PWP will have sufficient supply to meet the projected demand over the next 25 years. PWP will also ensure that it can reliably maintain its own supply in the event that MWD experiences delays in implementing its Integrated Resources Plan (IRP), including the declaration of a "water shortage" pursuant to PMC Chapter 13.10 and implementation of a water shortage plan. The City also maintains a contract with the City of Glendale for the provision of recycled water and has the right to 6,000 AFY of recycled water from the Los Angeles/Glendale Water Reclamation Plant. PWP is also considering other

water supply enhancement and storage projects. In addition, the City is looking at ways to strengthen the local regulation of water use through other PMC amendments. Through these efforts, PWP anticipates serving demand in the City as forecast in the City's General Plan and UWMP into the foreseeable future.

(2) MWD Water Supply and Demand

The MWD receives its water from various supplies including the Colorado River and the State Water Project (SWP). Currently, these sources are undergoing litigation and face various uncertainties regarding water supply. Current challenges facing MWD's Colorado River supply include risk of continued drought in the Colorado River Basin and pending litigation that may threaten implementation of part or all of the QSA. However, the MWD anticipates that its apportionment of 550,000 AF of Colorado River water will be available during all year types. MWD "does not anticipate adverse water supply impacts resulting from the implementation of [the] shortage guidelines because California's 4.4 million acre-foot apportionment has a higher priority than a portion of Arizona and Nevada's apportionments during shortage conditions." Thus, according to MWD, its Colorado River supply is secure through at least 2025.

In 2007, two courts ruled that the SWP and the Central Valley Project (CVP) were violating State and federal environmental laws regarding a threatened fish species, the Delta smelt. In December 2008, a new BiOP was issued by the USFWS, which is currently under review by the MWD to determine the potential impacts on its future available supplies. In response to these decision and other water supply and quality issues, MWD has reported that "[i]n the short and long-term, continued investment in regional and local resources will help ensure and diversify reliable water supplies to meet Southern California's future needs." MWD has embarked on many proactive programs to deal with potential future delivery restrictions, should they occur. These programs and plans are described in detail in Section IV.F, Water Supply, of this EIR.

In conclusion, MWD's resource development programs demonstrates that although SWP supplies are facing challenges, MWD's adaptive planning framework will allow MWD to adapt to changing conditions and ensure a reliable, diverse water supply to its members agencies that supply water to municipal customers. MWD has worked for the past 10 years to increase the capacity of its reservoirs and its overall water reserve is several times larger than it was during the 1991-1992 drought. In addition, actions that are being taken by the CALFED process and the State should enhance reliability of the SWP supplies in the future.

B. RELATED PROJECTS

The California Environmental Quality Act (CEQA) requires that Environmental Impact Reports (EIRs) analyze cumulative impacts. CEQA Guidelines Section 15355 defines cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." In addition, CEQA Guidelines Section 15130(b) indicates that the analysis of cumulative impacts need not be as in-depth as what is provided relative to the proposed project, but instead is to "be guided by the standards of practicality and reasonableness."

Cumulative impacts are anticipated impacts of the project along with reasonably foreseeable growth. According to CEQA Guidelines Section 15130(b)(1), reasonably foreseeable growth may be based on either of the following:

- A list of past, present, and probable future projects producing related or cumulative impacts including, if appropriate, those projects outside the control of the agency; or

- A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental planning document which has been adopted or certified, which describes or evaluates regional or area-wide conditions contributing to the cumulative impact.

Cumulative study areas are defined based on an analysis of the geographical scope relevant to each particular environmental issue. Therefore, the cumulative study area for each individual environmental impact issue may vary. For example, a cumulative land use impact generally could only affect the compatibility of uses within the vicinity of the project site, while a cumulative air quality impact could affect the entire South Coast Air Basin. The specific boundaries, and the projected growth within those boundaries for the cumulative study area of each environmental issue, are identified in the applicable environmental issue section in Section IV, Environmental Impact Analysis, of this EIR.

Ten (10) small to large projects have been identified within the vicinity of the project site. These projects are described in Table III-1 on page III-9 and are located on the map presented in Figure III-1 on page III-10. This list of related projects has been compiled from the City of Pasadena.

Table III-1

Related Projects List

Related Project No.	Project Location	Land Use	Intensity/Units
1	140 E Orange Grove Blvd	Condominiums Retail	26 du 7,824 sq ft
2	563 E Lincoln Ave	Condominiums	20 du
3	208 E Orange Grove Blvd	Retail Office	5,950 sq ft 6,364 sq ft
4	760 N Fair Oaks Ave	Senior Housing Retail	109 du 4,000 sq ft
5	855 N Fair Oaks Ave	Condominiums Office	14 du 3,960 sq ft
6	865 N Fair Oaks Ave	Senior Housing Retail	16 du 3,623 sq ft
7	810 N Marengo Ave	Condominiums	18 du
8	31 E Villa St	Private School	85 students
9	100 W California Blvd	Huntington Hospital ER Expansion	- [a]
10	70 W California Blvd	Medical Office	195,000 sq ft

du=dwelling unit
sq ft = square feet
[a] *The intensity of this project was not provided.*
Source: Fehr and Peers, Traffic and Parking Study for the California Fair Oaks Office Building; 590-612 South Fair Oaks Avenue, 12-26 East California Boulevard, September 2008.

Figure III-1
Location of Related Projects

Source: PCR Services Corporation, 2009.

IV. Environmental Impact Analysis

IV. ENVIRONMENTAL IMPACT ANALYSIS
A. AIR QUALITY

1. INTRODUCTION

This section addresses air quality impacts associated with construction and operation of the proposed project and evaluates whether the project is consistent with the air quality policies set forth in the South Coast Air Quality Management District's (SCAQMD) Air Quality Management Plan, and the City of Pasadena General Plan. The analysis of project-generated air emissions focuses on whether the proposed project would cause an exceedance of ambient air quality standards or SCAQMD significance thresholds.

2. ENVIRONMENTAL SETTING

a. Regulatory Framework

A number of statutes, regulations, plans and policies address air quality. The proposed project site and vicinity are subject to air quality measures developed and implemented at the federal, state and local levels. At the federal level, the United States Environmental Protection Agency (USEPA) is responsible for implementation of the federal Clean Air Act (CAA). Some portions of the CAA (e.g., certain mobile source and other requirements) are implemented directly by the USEPA. Other portions of the CAA (e.g., stationary source requirements) are implemented by state and local agencies.

(1) Federal Clean Air Act

The CAA was first enacted in 1955 and has been amended numerous times in subsequent years, with the most recent major amendments having been enacted in 1990. The CAA requires national air quality standards, known as National Ambient Air Quality Standards (NAAQS) (see Table IV.B-1) and specifies dates for achieving compliance.

States have primary responsibility for assuring air quality within their borders.[9] The CAA requires that each state submit a "State implementation plan" (SIP) for "implementation, maintenance, and enforcement" of NAAQS, but allows the USEPA Administrator to impose a

[9] *CAA Sec. 107.*

"Federal implementation plan" if a state fails to submit a SIP or submits an inadequate SIP.[10] In California, the state Air Resources Board (CARB) is the "lead agency for all purposes related to the SIP."[11] The SCAQMD and other local air districts, as well as state agencies such as the Bureau of Automotive Repair, prepare SIP elements and submit them to CARB for review and approval.[12] SIPs must include pollution control measures, and demonstrate how the states will meet the NAAQS.

The project site is within the South Coast Air Basin (Basin), which is an area designated as non-attainment since the area does not meet NAAQS for certain pollutants regulated under the CAA.

The 1990 CAA amendments require specific emission reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and additional sanctions for failure to attain or to meet interim milestones.

The sections of the CAA that are most applicable to the proposed project include Title I's non-attainment provisions and Title II's motor vehicle provisions.

Title I, as implemented, requires attainment of NAAQS for the following pollutants, which are called "criteria pollutants" because the Administrator has listed and issued "air quality criteria" for them pursuant to Section 108 of the CAA:[13] (1) ozone (O_3); (2) nitrogen dioxide (NO_2); (3) sulfur dioxide (SO_2); (4) particulate patter (PM_{10} and $PM_{2.5}$); (5) carbon monoxide (CO); and (6) lead (Pb). Table IV.A-1 on page IV.A-3 and IV.A-4 shows the NAAQS currently in effect for each criteria pollutant. The NAAQS were amended in July 1997 to include an 8-hour standard for O_3 and to adopt a standard for $PM_{2.5}$. The NAAQSs were amended again in September 2006 to include an established methodology for calculating $PM_{2.5,}$ to strengthen the 24-hour $PM_{2.5}$ standard, and to revoke the annual PM_{10} standard. Deadlines for meeting the NAAQS within the Basin include the following:[14] (1) 1-hour O_3 by the year 2010;[15]

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[10] *CAA Secs. 107 and 110.*

[11] *California State Implementation Plan (SIP), http://www.arb.ca.gov/planning/sip/sip.htm (accessed July 2008).*

[12] *Ibid.*

[13] *Under Sec. 108, for each pollutant the Administrator lists, he or she issues "air quality criteria" that "reflect the latest scientific knowledge useful in indicating the kind and extent of all identifiable effects on public health or welfare which may be expected from the presence of such pollutant in the ambient air, in varying quantities."*

[14] *South Coast Air Quality Management District, Draft 2007 AQMP [now adopted].*

[15] *The USEPA has revoked the 1-hour O_3 standard, but the SCAQMD (and others) sued to overturn the revocation. The district's AQMP mentions this, and still addresses attainment of the 1-hour standard. The deadline is still in the CAA (Sec. 181; 42 U.S.C. § 7511).*

Table IV.A-1

Ambient Air Quality Standards [a]

Pollutant	Averaging Time	California Standards [a]		National Standards [b]		
		Concentration [c]	Method [d]	Primary [c,e]	Secondary [c,f]	Method [g]
Ozone ($O^{3)}$	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m^3)		0.075 ppm (147 µg/m^3)		
Respirable Particulate Matter (PM_{10})	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter ($PM_{2.5}$)	24 Hour	No Separate State Standard		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	15 µg/m^3		
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)
	1 Hour	20 ppm (23 mg/m^3)		35 ppm (40 mg/m^3)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	—
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m^3)	Same as Primary Standard	Gas Phase Chemiluminescence
	1 Hour	0.18 ppm (339 µg/m^3)		—		
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	—	Ultraviolet Fluorescence	0.030 ppm (80 µg/m^3)	—	Spectrophotometry (Pararosaniline Method)
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (365 µg/m^3)	—	
	3 Hour	—		—	0.5 ppm (1300 µg/m^3)	
	1 Hour	0.25 ppm (655 µg/m^3)		—	—	—
Lead (Pb) [h]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	—
	3 Consecutive Calendar Months	—		0.15 µg/m^3	Same as Primary Standard	High Volume Sampler, and Atomic Absorption or Equivalent

Table IV.A-1 (Continued)

Ambient Air Quality Standards [a]

Pollutant	Averaging Time	California Standards [a]		National Standards [b]		
		Concentration [c]	Method [d]	Primary [c,e]	Secondary [c,f]	Method [g]
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per kilometer — visibility of ten miles or more (0.07 — 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		**No National Standards**		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride [h]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

[a] *California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter (PM_{10}, and $PM_{2.5}$) and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.*

[b] *National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact USEPA for further clarification and current national policies.*

[c] *Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.*

[d] *Any equivalent procedure which can be shown to the satisfaction of the California Air Resources Board (CARB) to give equivalent results at or near the level of the air quality standard may be used.*

[e] *National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.*

[f] *National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.*

[g] *Reference method as described by the USEPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the USEPA.*

[h] *CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.*

Source: California Air Resources Board (http://www.arb.ca.gov/research/aaqs/aaqs2.pdf, dated 06/022/08), and U.S. Environmental Protection Agency (http://www.epa.gov/air/lead/pdfs/20081015_pb_naaqs_final.pdf, file date October 2008 [see http://www.epa.gov/ttn/naaqs/standards/pb/s_pb_cr_fr.html]), accessed October 2008.

(2) 8-hour O_3 by the year 2024; (3) PM_{10} by the year 2006; and (4) $PM_{2.5}$ by the year 2015. Although the deadline for PM_{10} has past, the Basin met the PM_{10} standard then at all stations except for western Riverside.[16]

Non-attainment designations are categorized into seven levels of severity: (1) basic, (2) marginal, (3) moderate, (4) serious, (5) severe-15, (6) severe-17, and (7) extreme.[17] Although previously not in attainment for CO, the Basin is now in attainment for that pollutant. On June 11, 2007, the USEPA reclassified the Basin as a federal attainment area for CO and approved the Basin's CO maintenance plan[18]. The Basin fails to meet national standards for O_3, PM_{10}, and $PM_{2.5}$ and therefore is considered a Federal non-attainment area for these pollutants. Table IV.A-2 on page IV.A-6 lists the criteria pollutants and the Basin's current attainment status.

Title II of the CAA pertains to mobile sources, such as cars, trucks, buses, and planes. Reformulated gasoline, automobile pollution control devices, and vapor recovery nozzles on gas pumps are a few of the mechanisms the USEPA uses to regulate mobile air emission sources. The provisions of Title II have resulted in progressively more stringent standards to reduce tailpipe emissions from vehicles. For example, the current standards for oxides of nitrogen (NO_X) emissions and for cleaner burning gasoline are substantially more stringent than those first promulgated.

In California, mobile source emission control is primarily a state responsibility. CARB sets and enforces emission standards for motor vehicles and fuels (and consumer products and well), while it oversees and assists local air quality districts (including the SCAQMD), which regulate most non-vehicular sources of air pollution.[19]

(2) California Law

State law requires the SCAQMD to achieve both the NAAQS and California standards by the earliest practicable date achievable by application of all reasonably available control measures and technologies. Table IV.A-1 shows the California and national ambient air quality standards that are currently in effect. The California standards are at least as stringent as, and in most cases more stringent than, the NAAQS. Therefore if the Basin has not attained a national standard, it has not attained the corresponding more stringent state standard. National and state

[16] *South Coast Air Quality Management District, Draft 2007 AQMP [now adopted].*

[17] *The "-15" and "-17" designations reflect the number of years within which attainment must be achieved.*

[18] *"Approval and Promulgation of Implementation Plans and Designation of Areas for Air Quality Planning Purposes: California, Final Rule." Federal Register 72 (11 May 2007):26718-26721*

[19] *Introduction to the Air Resources Board, http://www.arb.ca.gov/html/brochure/arb.htm (accessed July 2008).*

Table IV.A-2

South Coast Air Basin Attainment Status

Pollutant	National Standards	California Standards
Ozone (1-hour standard)	N/A [a]	Non-attainment
Ozone (8-hour standard)	Extreme Non-attainment	N/A
Carbon Monoxide	Attainment [b]	Attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
PM_{10} (24-hour standard)	Serious Non-attainment	Non-attainment
PM_{10} (annual standard)	N/A [c]	Non-attainment
$PM_{2.5}$	Serious Non-attainment	Non-attainment
Lead	Attainment [c]	Attainment [c]
Visibility Reducing Particles	N/A	Unclassified
Sulfates	N/A	Attainment [c]
Hydrogen Sulfide	N/A	Unclassified
Vinyl Chloride	N/A	N/A [d]

N/A = not applicable

[a] *This national standard was revoked on June 15, 2005, for all areas except for some outside California.*

[b] *The Basin was officially reclassified as in attainment for carbon monoxide by the USEPA on June 11, 2007. "Approval and Promulgation of Implementation Plans and Designation of Areas for Air Quality Planning Purposes: California, Final Rule." Federal Register 72:26718-26721 (11 May 2007).*

[c] *This national standard was revoked on September 21, 2006.*

[d] *Although there is a state ambient air quality standard for vinyl chloride, the California Air Resources Board does not monitor or make status designations for this pollutant, which is subject to source-specific toxic air contaminant control measures.*

Source: USEPA Region 9 and California Air Resources Board.

standards are close enough so that currently there is no pollutant for which the Basin has attained the national, but not the state, standard.

In addition to setting its own standards for NAAQS pollutants, California has also set ambient standards for sulfates, hydrogen sulfide, vinyl chloride and visibility-reducing particles. Table IV.A-2 provides the Basin's attainment status with respect to pollutants that have national or State standards. With regard to California standards for pollutants without NAAQS, the Basin is in attainment for sulfates, hydrogen sulfide and vinyl chloride, but not for visibility-reducing particles.

(3) California Air Resources Board Emission Control Measures

Emissions from diesel engines generally convey some of the most important air quality impacts of construction and development projects. Particulate matter (PM) is a major component of those emissions. "Diesel engine emissions are responsible for a majority of California's

estimated cancer risk attributable to air pollution. In addition, diesel PM is a significant fraction of California's particulate pollution problem."[20] Reducing public exposure to diesel exhaust is the objective of several regulations. As regulations change the amount of pollutant emissions associated with construction and with land uses such as transportation, they affect the evaluation of project impacts.

One significant regulation that became effective February 1, 2005 limits commercial heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter (DPM) and other air contaminants.[21] The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. In general, it prohibits idling for more than 5 minutes at any location.

In addition to limiting exhaust from idling trucks, CARB has promulgated emission standards for off-road diesel construction equipment such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. A CARB regulation that became effective on June 15, 2008, aims to reduce emissions by installation of diesel soot filters and encouraging the replacement of older, dirtier engines with newer emission controlled models.[22] A prohibition against acquiring certain vehicles begins on March 1, 2009, and a reporting requirement starts on April 1, 2009. Implementation of some provisions is staggered based on fleet size (here, a fleet is comprised of all the off-road vehicles and engines subject to the regulation and owned by a single owner), with the largest operators to begin compliance in 2010. By 2020, CARB estimates that DPM will be reduced by 74 percent and smog forming NO_X (another important pollutant emitted from construction projects) by 32 percent, compared to what emissions would be without the regulation.[23]

(4) California Air Resources Board Air Quality and Land Use Handbook

The California Air Resources Board (CARB) published an *Air Quality and Land Use Handbook* (CARB Handbook) in April 2005 to serve as a general guide for considering impacts

[20] *CARB, Summary of Adverse Impacts of Diesel Particulate Matter (July 2005); http://www.arb.ca.gov/research/-diesel/diesel_health_effects_summary_7-5-05-1.pdf.*

[21] *Calif. Code of Regulations, Title 13, Sec. 2485. See http://www.arb.ca.gov/regact/idling/idling.htm (accessed July 2008).*

[22] *Calif. Code of Regulations, Title 13, Secs. 2449, 2449.1, 2449.2 and 2449.3. See http://www.arb.ca.gov/regact/-2007/ordiesl07/ordiesl07.htm (accessed July 2008).*

[23] *CARB, Technical Support Document: Regulation for In-Use Off-Road Diesel Vehicles (April 2007), http://-www.arb.ca.gov/regact/2007/ordiesl07/TSD.pdf, pp. 135-137.*

to sensitive receptors from facilities that emit toxic air contaminants (TACs). The recommendations in the handbook are voluntary and do not constitute a requirement or mandate for either land use agencies or local air districts. Nevertheless, CEQA lead agencies often refer to the CARB Handbook's siting recommendations. Therefore, this document addresses those recommendations as they relate to the proposed project. The goal of the CARB guidance is to protect sensitive receptors, such as children, the elderly and acutely or chronically ill persons from significant exposure to TACs. Some examples of the CARB Handbook's siting recommendations include the following: (1) avoid siting sensitive receptors within 500 feet of freeways or high-traffic roads (e.g., roads within urbanized areas carrying 100,000 or more vehicles per day); (2) avoid siting sensitive receptors within 1,000 feet of a busy distribution center (because of truck emissions); and (3) avoid siting sensitive receptors within 300 feet of a single-machine dry cleaning operation using perchloroethylene (or within 500 feet of a dry cleaner with two machines).[24]

(5) South Coast Air Quality Management District

The SCAQMD has jurisdiction over approximately 10,743 square miles. The South Coast Air Basin (Basin) consists of the land and air above approximately 6,745 square miles of the SCAQMD's jurisdiction. The Basin includes portions of Los Angeles, Riverside San Bernardino counties and all of Orange County. While its air quality has improved, the Basin requires continued diligence to meet air quality standards.

The SCAQMD has adopted a series of Air Quality Management Plans (AQMPs) to meet national air quality standards. Every three years, the district prepares an AQMP for inclusion in a SIP to be submitted to the USEPA.[25] The introduction to the 2007 AQMP notes that it "employs the most up-to-date science and analytical tools and incorporates a comprehensive strategy aimed at controlling pollution from all sources."[26] It "incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes and new air quality modeling tools."[27] The AQMP builds upon measures contemplated by "responsible agencies" to achieve national standards for air quality in the Basin and parts of the Salton Sea Air Basin that are under district jurisdiction.[28] In addition,

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[24] *California Air Resources Board, "Air Quality and Land Use Handbook: A Community Health Perspective" (April 2005): http://www.arb.ca.gov/ch/handbook.pdf, p. 4. See also http://www.arb.ca.gov/ch/landuse.htm.*

[25] *http://aqmd.gov/aqmp/AQMPintro.htm (accessed July 2008).*

[26] *SCAQMD, Final 2007 Air Quality Management Plan, http://aqmd.gov/aqmp/07aqmp/aqmp/-Complete_Document.pdf (accessed July 2008 from http://aqmd.gov/aqmp/07aqmp/index.html), p. ES-2.*

[27] *Ibíd., p. ES-2.*

[28] *Ibíd., p. ES-2.*

it "aims to incorporate all feasible control measures while balancing costs and socioeconomic impacts."[29]

The "2007 AQMP relies on a comprehensive and integrated control approach aimed at achieving the $PM_{2.5}$ standard by 2015 . . . and achieving the 8-hour ozone standard by 2024 . . . ."[30] The SCAQMD expects that to attain the 8-hr ozone standard by 2024 "will require significant additional reductions above and beyond those necessary for PM2.5 attainment," which will "be achieved through implementation of new and advanced control technologies as well as improvement of existing technologies."[31] Some of the required control technologies have yet to be invented.[32]

The AQMP control measures "consist of four components: 1) the SCAQMD's Stationary and Mobile Source Control Measures; 2) CARB's Proposed Revised Draft State Strategy; 3) SCAQMD's Staff's Proposed Policy Options to Supplement CARB's Control Strategy; and 4) Regional Transportation Strategy and Control Measures provided by SCAG" (the Southern California Association of Governments).[33]

The first component, SCAQMD's own control strategy for stationary and mobile sources, "is based on the following approaches: 1) facility modernization; 2) energy efficiency and conservation; 3) good management practices; 4) market incentives/compliance flexibility; 5) area source programs; 6) emission growth management; and 7) mobile source programs."[34] The second component, written by CARB, is a plan, focused on ozone and $PM_{2.5}$, for state compliance with the federal Clean Air Act.[35] The third component consists of ways to provide additional reductions in mobile source emissions, beyond the reductions identified in CARB's mobile source control strategy, in order for the South Coast Air Basin to attain the national ambient air quality standard for $PM_{2.5}$ by 2015.[36] The fourth component provides air pollution control through transportation planning and by funding transportation measures (some of which

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[29] *Ibíd., p. ES-8.*

[30] *Ibíd., p. ES-8.*

[31] *Ibid., p. ES-13.*

[32] *Section 182(e)(5) of the CAA authorizes including such measures — so-called "black box" measures — when SIPs address extreme nonattainment areas. See SCAQMD, Final 2007 Air Quality Management Plan, http://-aqmd.gov/aqmp/07aqmp/aqmp/-Complete_Document.pdf (accessed July 2008 from http://aqmd.gov/aqmp/-07aqmp/index.html), p. ES-2.*

[33] *SCAQMD, Final 2007 Air Quality Management Plan, http://aqmd.gov/aqmp/07aqmp/aqmp/-Complete_Document.pdf (accessed July 2008 from http://aqmd.gov/aqmp/07aqmp/index.html), p. 4-5.*

[34] *Ibid., p. 4-6.*

[35] *See ibid., pp. 4-34 – 4-42.*

[36] *See ibid., pp. 4-43 – 4-54.*

are called "Transportation Control Measures"), including infrastructure improvements and extensions, bus fleet expansion, and acquisition of rolling stock for rail use.[37]

Several SCAQMD rules adopted to implement portions of the AQMP may apply to construction or operation of the project. For example, SCAQMD Rule 403 requires the implementation of best available fugitive dust control measures during active construction periods capable of generating fugitive dust emissions from on-site earth-moving activities, construction/demolition activities, and construction equipment travel on paved and unpaved roads. The full text of SCAQMD Rule 403 is included in Appendix B of this EIR.

The SCAQMD published a *CEQA Air Quality Handbook* (the Handbook) in 1993 to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts in accordance with the California Environmental Quality Act (CEQA).[38] The Handbook provides standards, methodologies and procedures for conducting air quality analyses in EIRs, and was used extensively in the preparation of this analysis. However, the SCAQMD is currently in the process of replacing the Handbook with an "Air Quality Analysis Guidance Handbook."[39] While this process is underway, the SCAQMD recommends that the lead agency avoid using the screening tables in the Handbook's Chapter 6, because the tables were derived using an obsolete version of CARB's mobile source emission factor inventory, and the trip generation characteristics of the land uses identified in these screening tables were based on the fifth edition of the ITE Trip Generation Manual, instead of the most current edition. Additionally, the lead agency should avoid using certain on-road mobile source emission factors. The SCAQMD instead recommends using other approved models to calculate emissions from land use projects, such as the URBEMIS 2007 model.[40] To assist the lead agency, this EIR follows SCAQMD's recommendations.

In addition, in June 2003, the SCAQMD published a document called "Localized Significance Threshold Methodology" that is intended to provide guidance for lead agencies evaluating localized air quality impacts that would be caused by emissions of CO, NO_X and PM_{10} from proposed projects.[41] In October 2006, the SCAQMD adopted similar guidance regarding $PM_{2.5}$ in a document called "Final – Methodology to Calculate Particulate Matter

[37] *See ibid., pp. 4-25 – 4-30.*

[38] *SCAQMD, CEQA Air Quality Handbook (April 1993; portions "Changed November 1993").*

[39] *http://www.aqmd.gov/ceqa/hdbk.html (accessed July 2008).*

[40] *http://www.aqmd.gov/ceqa/oldhdbk.html (accessed July 2008).*

[41] *See http://www.aqmd.gov/ceqa/handbook/LST/LST.html.*

$PM_{2.5}$ and $PM_{2.5}$ Significance Thresholds."[42] PCR consulted these documents, too, in the preparation of this EIR.

The SCAQMD has also published land use planning guidelines in the May 2005 "Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning"[43] which, like the CARB Handbook, considers impacts to sensitive receptors from facilities that emit TACs. The SCAQMD guidance document cites the distance recommendations provided by CARB in the CARB Handbook (e.g., for distribution centers and dry cleaning facilities), but recommends consulting SCAQMD "to obtain facility-specific emissions information and accepted assessment methods for determining relative exposure and health risk for proposed projects."[44] The SCAQMD's guidelines are voluntary initiatives recommended for consideration by local planning agencies and CEQA lead agencies.[45]

(6) Regional Comprehensive Plan and Guide

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino and Imperial Counties, and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG is the federally designated metropolitan planning organization (MPO) for the majority of the Southern California region and is the largest MPO in the nation. As the designated MPO, SCAG is mandated by the federal government to develop and implement regional plans that address transportation, growth management, hazardous waste management and air quality issues. With respect to air quality planning, SCAG prepared and, in 1994, adopted, the Regional Comprehensive Plan and Guide (RCPG), which includes Growth Management[46] and Regional Mobility[47] chapters that provide control measures and a basis for emission projections, air quality forecasts and other analyses contained in the SCAQMD's AQMP.[48]

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[42] *See http://www.aqmd.gov/ceqa/handbook/pm2_5/pm2_5.html.*

[43] *http://www.aqmd.gov/prdas/aqguide/doc/aq_guidance.pdf (accessed July 2008 from http://www.aqmd.gov/-prdas/aqguide/aqguide.html), Chapter 2.*

[44] *Ibid., p. 2-4.*

[45] *See ibid., Preface and p. 2-5.*

[46] *http://www.scag.ca.gov/rcp/pdf/pastprojects/1996RCPGGrowthManagementChapter.pdf.*

[47] *http://www.scag.ca.gov/rcp/pdf/pastprojects/1996RCPGRegionalMobilityChapter.pdf.*

[48] *SCAG has released a 2008 Draft Regional Comprehensive Plan. See http://www.scag.ca.gov/rcp/draft.htm.*

(7) Global Climate Change

Global climate change refers to changes in average climatic conditions on Earth as a whole, including changes in temperature, wind patterns, precipitation and storms. Historical records indicate that global climate changes have occurred in the past due to natural phenomena; however, data indicate that current global conditions differ from past climate changes in rate and magnitude. According to the Intergovernmental Panel on Climate Change (IPCC), the recent (within the last approximately 250 years) increase in atmospheric greenhouse gases is largely the result of human activities, namely fossil fuel combustion, land use changes and agriculture.[49]

Greenhouse gases (GHGs) are those compounds in the Earth's atmosphere that play a critical role in determining temperature at and near the Earth's surface. Specifically, these gases allow high-frequency shortwave solar radiation to enter the Earth's atmosphere, but retain some of the low frequency infrared energy that is radiated back from the Earth towards space, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect.[50] Increased concentrations of GHGs in the Earth's atmosphere have been linked to global climate change and such conditions as rising surface temperatures, melting icebergs and snowpack, rising sea levels, and the increased frequency and magnitude of extreme weather conditions.[51]

GHGs include carbon dioxide (CO_2), methane (CH_4), ozone (O_3), water vapor, nitrous oxide (N_2O), hydrofluorocarbons (HFCs) and perfluorinated compounds. Water vapor is the most abundant GHG in the atmosphere.[52] Nevertheless, water vapor is not included in the definition of "greenhouse gases" covered by the main state law on climate change, the California Global Warming Solutions Act of 2006 ("AB 32"), which is discussed below. Ozone is also not included.[53] By 2006, when the global warming law was enacted, control of ozone near the earth's surface (in the troposphere) was already a primary objective of well-established federal and state programs discussed above. In addition, efforts to stop destruction of the ozone layer in the stratosphere appear to have been successful, and, as a GHG, ozone is more of a concern in

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[49] *IPCC, Climate Change 2007 - The Physical Science Basis: Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. (Cambridge University Press, 2007.) "Summary for Policymakers," http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-spm.pdf, p.2, "Technical Summary," http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-ts.pdf, pp. 25 – 28 and 81, and "Frequently Asked Questions," http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-faqs.pdf, pp. 100 – 102 and 115 – 116 (all accessed July 2008 from http://www.ipcc.ch/ipccreports/ar4-wg1.htm).*

[50] *Ibid., "Frequently Asked Questions," pp. 98 – 99.*

[51] *Ibid., "Technical Summary," pp. 52 – 53 and 81 – 86.*

[52] *National Oceanic and Atmospheric Administration, "Greenhouse Gases: Frequently Asked Questions:" at http://lwf.ncdc.noaa.gov/oa/climate/gases.html#wv (accessed June 2008).*

[53] *Health and Safety Code Sec. 38505(g).*

the troposphere than in the stratosphere.[54] Water vapor, on the other hand, is generally not regulated as an air pollutant, as it appears in the atmosphere primarily through natural causes. An IPCC working group noted, "Direct emission of water vapour by human activities makes a negligible contribution to radiative forcing."[55] (Radiative forcing is an index of a substance's or other factor's potential to affect the energy balance in the Earth-atmosphere system and hence cause climate change.[56]) Global warming itself increases concentrations of water vapor in the atmosphere, by increasing rates of evaporation; "and this represents a key feedback but not a forcing of climate change."[57] The IPCC working group found that "Direct emission of water to the atmosphere by anthropogenic activities, mainly irrigation, is a possible forcing factor but corresponds to less than one percent of the natural sources of atmospheric water vapour. The direct injection of water vapour into the atmosphere from fossil fuel combustion is significantly lower than that from agricultural activity."[58] This document therefore focuses on GHGs other than ozone and water vapor.

GHGs are the result of both natural and anthropogenic activities. Primary sources of GHG emissions include fossil fuel consumption for power generation, transportation, heating and cooking, as well as forest fires, decomposition, landfills, and industrial processes. According to the California Energy Commission (CEC), emissions from fossil fuel consumption represented approximately 81 percent of California's anthropogenic GHG emissions in 2004, while 41 percent of all such emissions in the State came from the transportation sector of the economy.[59]

Our understanding of the fundamental processes responsible for global climate change has improved over the past decade, and our predictive capabilities are advancing. However, there remain significant scientific uncertainties, for example, in predictions of local effects of climate change, occurrence of extreme weather events, effects of aerosols, changes in clouds, shifts in the intensity and distribution of precipitation, and changes in oceanic circulation. Due to the complexity of the Earth's climate system, the uncertainty surrounding climate change may never be completely eliminated. Because of these uncertainties, there continues to be significant debate as to the extent to which increased concentrations of GHGs have caused or will cause climate change, and with respect to the appropriate actions to limit and/or respond to climate

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[54] *IPCC, Climate Change 2007 - The Physical Science Basis: Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. (Cambridge University Press, 2007.) "Technical Summary," p. 28. Accessed July 2008 from at http://www.ipcc.ch/ipccreports/ar4-wg1.htm.*

[55] *Ibid., p. 28.*

[56] *Ibid., p. 21. The IPCC report expresses radiative forcing values in Watts per square meter ($W\ m^{-2}$).*

[57] *Ibid., p. 28.*

[58] *Ibid., p. 28.*

[59] *http://www.energy.ca.gov/2006publications/CEC-600-2006-013/CEC-600-2006-013-SF.PDF.*

change. In addition, it is impossible to label a single development project as the cause of future specific climate change impacts.

In response to growing scientific and political concern regarding global climate change, California has recently adopted a series of laws to reduce both the level of GHGs in the atmosphere and the emissions of GHGs from emissions of GHGs from commercial and private activities within the State. In July 2002, Governor Gray Davis signed Assembly Bill (AB) 1493, requiring the development and adoption of regulations to achieve "the maximum feasible and cost-effective reduction of greenhouse gases" emitted by passenger vehicles, light-duty trucks, and other vehicles used primarily for noncommercial personal transportation in the State. It should be noted that setting emission standards on automobiles is solely the responsibility of the federal EPA. The federal CAA allows States to set state-specific emission standards on automobiles if they first obtain a waiver from the USEPA. The USEPA denied California's request for a waiver, thus delaying CARB's proposed implementation schedule for setting emission standards on automobiles to help reduce GHGs.

In June 2005, Governor Schwarzenegger signed Executive Order S-3-05, which established GHG emissions targets for the state, as well as a process to ensure the targets are met. The order directed the Secretary for California EPA to report every two years on the State's progress toward meeting the Governor's GHG emission reduction targets. As a result of this executive order, the California Climate Action Team (CAT), led by the Secretary of the California EPA, was formed. The CAT is made up of representatives from a number of State agencies and was formed to implement global warming emission reduction programs and reporting on the progress made toward meeting statewide targets established under the Executive Order. State agency members include the Business, Transportation and Housing Agency; Department of Food and Agriculture; Resources Agency; CARB; California Energy Commission; the Public Utilities Commission; and Department of Water Resources. The CAT published its *Climate Action Team Report to Governor Schwarzenegger and the Legislature* in March 2006, in which it laid out forty-six specific emission reduction strategies for reducing GHG emissions and reaching the targets established in the executive order.

In September 2006, Governor Arnold Schwarzenegger signed AB 32, enacting the California Global Warming Solutions Act of 2006. AB 32 commits the State to the following:

- 2000 GHG emission levels by 2010 (which represents an approximately 11 percent reduction from business as usual)
- 1990 levels by 2020 (25 percent below business as usual)
- 80 percent below 1990 levels by 2050

To achieve these goals, AB32 mandates that CARB establish a quantified emissions cap, institute a schedule to meet the cap, implement regulations to reduce Statewide GHG emissions from stationary sources, and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved. The following schedule outlines the CARB actions mandated by AB 32:

- By January 1, 2008, CARB adopts regulations for mandatory (GHG) emissions reporting, defines 1990 emissions baseline for California (including emissions from imported power), and adopts it as the 2020 statewide cap.[60] CARB has yet to finalize these regulations.

- By January 1, 2009, CARB adopts plan to effect GHG reductions from significant sources of GHG via regulations, market mechanisms and other actions.

- During 2009, CARB drafts rule language to implement its plan and holds a series of public workshop on each measure (including market mechanisms).

- By January 1, 2010, early action measures will take effect.

- During 2010, CARB, after workshops and public hearings, conducts series of rulemakings to adopt GHG regulations including rules governing market mechanisms.

- By January 1, 2011, CARB completes major rulemakings for reducing GHGs, including market mechanisms. CARB may revise and adopt new rules after January 1, 2011 to achieve the 2020 goal.

- By January 1, 2012, GHG rules and market mechanisms adopted by CARB take effect and become legally enforceable.

- December 31, 2020 is the deadline for achieving 2020 GHG emissions cap.

CARB's list of discrete early action measures that can be adopted and implemented before January 1, 2010 was approved on June 21, 2007, and focuses on major State-wide contributing sources and industries, not on individual development projects or practices. These early action measures are: 1) a low-carbon fuel standard; 2) reduction of refrigerant losses from motor vehicle air conditioning system maintenance; and 3) increased methane capture from landfills. Recently, CARB released emissions inventory estimates for 1990 through 2004.

[60] *CARB has adopted 427 million metric tonnes of carbon dioxide equivalent (MMTCO2e) as the total statewide greenhouse gas 1990 emissions level and the 2020 emissions limit. See http://www.arb.ca.gov/cc/inventory/1990level/1990level.htm (last visited 8/14/2008).*

Senate Bill (SB) 1368, a companion bill to AB32, requires the California Public Utilities Commission (PUC) and CEC to establish GHG emission performance standards for the generation of electricity. These standards will also apply to power that is generated outside of California and imported into the State. SB 1368 provides a mechanism for reducing the emissions of electricity providers, thereby assisting ARB to meet its mandate under AB 32. On January 25, 2007, the CPUC adopted an interim GHG Emissions Performance Standard (EPS), which is a facility-based emissions standard requiring that all new long-term commitments for baseload generation to serve California consumers be with power plants that have GHG emissions no greater than a combined cycle gas turbine plant. That level is established at 1,100 pounds of CO_2 per megawatt-hour (MW/hr). Further, on May 23, 2007, the CEC adopted regulations that establish and implement an identical EPS of 1,100 pounds of CO_2 per MW/hr (see CEC order No. 07-523-7). An additional bill related to AB 32, SB 97, requires the California Office of Planning and Research (OPR), by July 1, 2009, to prepare, develop, and transmit to the Resources Agency guidelines for the feasible mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions, as required by CEQA, including but not limited to, effects associated with transportation or energy consumption. The Resources Agency will then be required to certify and adopt the guidelines by January 1, 2010, and to periodically update the guidelines to incorporate new information or criteria established by the CARB pursuant to AB 32.[61] The OPR released a technical advisory on addressing climate change through CEQA Review on June 19, 2008. This guidance document outlines suggested components to CEQA disclosure: quantification of GHG emissions from a project's construction and operation, determination of signifiance of the project's impact to climate change, and if the project is found to be significant, the identification of suitable alternatives and mitigation measures.

On December 6, 2007, the California Air Resources Board adopted a statewide GHG emissions limit. The limit is 427 million metric tons of carbon dioxide equivalents ($MMTCO_2e$), which CARB found to be the 1990 GHG emissions level.[62] CARB held open the possibility of changing the limit "if additional information becomes available that would significantly change the 1990 […] level."[63]

CARB has also promulgated GHG emission reporting and verification requirements to implement the law. A post-adoption public comment period on CARB's "Regulation for the Mandatory Reporting of Greenhouse Gas Emissions" closed on June 5, 2008.[64] This regulation

[61] *Senate Bill No. 97, Chapter 185, approved by Governor Schwarzenegger and filed with the Secretary of State, August 24, 2007.*

[62] *See California Air Resources Board, California 1990 Greenhouse Gas Emissions Level and 2020 Limit, http://www.arb.ca.gov/cc/inventory/1990level/1990level.htm.*

[63] *CARB Resolution 07-55, December 6, 2007.*

[64] *See http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep.htm.*

requires GHG emissions reporting to be verified by CARB-accredited verifiers beginning with reports submitted in 2010 (for 2009 emissions).[65]

On June 21, 2007, CARB approved an AB 32-mandated list of discrete early action measures that can be implemented before January 1, 2011.[66] These discrete early action measures focus on major statewide contributing sources and industries, not on individual development projects or practices. The three discrete early action measures CARB adopted are: 1) a low-carbon fuel standard; 2) reduction of refrigerant losses from motor vehicle air conditioning system maintenance, by restricting the sale of "do-it-yourself" automotive refrigerants; and 3) increased methane capture from landfills.[67] On Sept. 7, 2007, CARB staff proposed additional early action measures,[68] some of which, including shore power for ships in port,[69] have since been adopted by the board.

A bill enacted in 2007, SB 97 (Stats. 2007, ch. 185), requires the Governor's Office of Planning and Research (OPR) to prepare and develop guidelines for mitigation required by CEQA of GHG emissions and the effects of GHG emissions. The bill, whose mandates are now part of CEQA, set a deadline of July 1, 2009 for OPR to send such guidelines to the Resources Agency. The Resources Agency has until January 1, 2010, to certify and adopt guidelines prepared and developed by OPR.

OPR, "[i]n the interim," has issued a technical advisory offering "informal guidance" about how CEQA lead agencies should address climate change.[70] In that advisory, OPR notes that each public agency that is a CEQA lead agency "needs to develop its own approach to performing a climate change analysis for projects that generate GHG emissions."[71] Nevertheless, for such projects, "compliance with CEQA entails three basic steps:" quantifying GHG emissions, assessing the (individual and cumulative) significance of their impact on climate change, and if the impact is found to be significant, identifying alternatives or mitigation measures "that will reduce the impact

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[65] *Calif. Code of Regulations, Title 17, Sec. 95103.*

[66] *Health and Safety Code § 38560.5(a), enacted by AB 32, mandated publication of the list by June 30, 2007.*

[67] *California Air Resources Board, California Environmental Protection Agency, California Moves Swiftly to Further Address Climate Change Emissions, Early Action Items Approved Today, http://www.arb.ca.gov/newsrel/nr062107.htm.*

[68] *See California Air Resources Board, California Environmental Protection Agency, ARB Staff Proposes to Triple Early Action Measures Required Under AB 32 http://www.arb.ca.gov/newsrel/nr090707.htm.*

[69] *See California Air Resources Board, California Environmental Protection Agency, Shore Power for Ocean-going Vessels, http://www.arb.ca.gov/ports/shorepower/shorepower.htm.*

[70] *State of California, Governor's Office of Planning and Research, "CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review" (June 19, 2008), http://www.opr.ca.gov/download.php?dl=ceqa/pdfs/june08-ceqa.pdf. (Quoted: p. 2.)*

[71] *Ibid., p. 5.*

below significance."[72] "In the absence of" standards or data that "clearly define what constitutes a 'significant impact,' individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice."[73] Attached to the technical advisory is a list of references and information sources and (to help with project-by-project consideration of emission reduction or mitigation measures) a list of examples of GHG reduction measures.

"Although climate change is ultimately a cumulative impact," the OPR advisory says that "not every individual project that emits GHGs must necessarily be found to contribute to a significant cumulative impact on the environment."[74] In the advisory, OPR suggests that using previously approved plans or mitigation programs "that have adequately analyzed and mitigated GHG emissions to a less than significant level" may be "a means to avoid or substantially reduce the cumulative impact of a project."[75] The advisory points to governments and organizations that have developed guidebooks, strategies and other measures to address GHG emissions, and suggests such activity is helpful because CEQA can be a more effective tool for analyzing and mitigating GHG emissions if it is supported by "sound development policies and practices" "on a broad planning scale."[76]

CARB approved the Climate Change Scoping Plan Document on December 11, 2008, which reiterates the goal of AB32 to reduce GHG emissions to 1990 levels by 2020. The Scoping Plan outlines ways in which various sectors, such as electricity generation, goods movement, refineries, landfills, etc., can reduce GHG emissions and quantifies the impact of these measures. The Scoping Plan does not specifically address emission reduction targets for development projects. According to CARB, cutting GHG emissions to 1990 levels equates to an approximately 30 percent reduction statewide from Business as Usual (BAU) emission levels for 2020, or roughly a 15 percent reduction from current levels. The Scoping Plan characterizes the BAU case in the context of AB32 as a representation of California's economy in the year 2020, assuming that none of the recommended actions outlined in the Scoping Plan are implemented.

The Scoping Plan listed a number of recommendations for reducing GHG emissions throughout the State. These recommendations, however, remain preliminary. Prior to the release of the Scoping Plan, the City had implemented several of the recommendations enumerated in the Plan. The City's Green Building Ordinance, its transit-oriented development zones and standards, and the prevalence of public transportation in the City are consistent with the Scoping Plan's

[72] *Ibid., p. 5.*

[73] *Ibid., p. 6.*

[74] *Ibid., p. 6.*

[75] *Ibid., p. 6.*

[76] *Ibid., pp. 7-8.*

recommendations. Additionally, the City is in the process of drafting a local carbon inventory, which will lead to a local Greenhouse Gas Reduction Plan and related updates to the City's General Plan elements. The City intends to collaborate with CARB and the State Attorney General's Office to ensure that the GHG Reduction Plan and updated General Plan elements meet the goals and objectives of the State.

As there exists an overlap between land use and GHG emissions, the City has developed a Green Building Practice standard in its Municipal Code that uses the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) Green Building Rating System as the standard for which a project will be measured as a green building. The Pasadena Green Building Practice requires all applicable projects to submit a Checklist and supporting documentation to indicate that the project would achieve the number of points needed to achieve the "Certified" level.

There has also been activity at the federal level with respect to the regulation of GHGs. In *Massachusetts v. Environmental Protection Agency* (Docket No. 05–1120), argued November 29, 2006 and decided April 2, 2007, the U.S. Supreme Court held that EPA has authority to regulate GHGs, and that EPA's reasons for not regulating GHGs did not fit statutory requirements. As such, the Court ruled that the EPA could be required to regulate CO_2 and other greenhouse gases as pollutants under the Clean Air Act. However, EPA has not yet developed a regulatory program for greenhouse gas.

(8) Potential Health Impacts

Certain air pollutants have been recognized to cause notable health problems or damage to the environment either directly or in reaction with other pollutants, due to their presence in elevated concentrations in the atmosphere. Such pollutants have been identified and regulated as part of the overall endeavor to prevent further deterioration and facilitate improvement in ambient air quality.

Following are pollutants subject to emission reduction measures adopted by federal, state or local regulatory agencies, and measured at official monitoring stations within the SCAQMD:

Ozone (O_3): Ozone is a secondary pollutant formed by the chemical reaction of volatile organic compounds (VOC) and nitrogen oxides (NOx) in the presence of sunlight, especially under meteorological conditions such as high temperature and stagnation episodes. Elevated ambient levels of ozone irritate the lungs and breathing passages, often reducing lung function and the ability to exercise, increasing susceptibility to respiratory infections, and sometimes causing coughing and pain in the chest and throat. Effects are more severe in people with asthma and other respiratory ailments. Long-term exposure to high levels of ozone may scar lung tissue, causing chronic impairment of lung function.

Particulate Matter (PM_{10} and $PM_{2.5}$): Most visible particles in the air (dust and soot) do not get deep into human lungs. However, small particles, such as those with an aerodynamic diameter equal to or less than ten microns (PM_{10}), and especially even smaller particles with a aerodynamic diameter equal to or less than 2.5 microns ($PM_{2.5}$), can pass through the nose, throat, and upper respiratory tract, and reach delicate lung tissue. All of PM_{10} is considered "respirable particulate matter," while $PM_{2.5}$ is frequently called "fine particulate matter." Some fine particles may even enter the bloodstream. Small particulates, especially those with reactive combustion products on their surfaces, may aggravate existing heart and lung diseases, change the body's defenses against inhaled materials, and damage lung tissue. The elderly, children and those with chronic lung or heart disease are most sensitive to PM_{10} and $PM_{2.5}$. Lung impairment can persist for two to three weeks after exposure to high levels of particulate matter.

Diesel Exhaust: Diesel engines emit particulate matter (DPM) and vapor. Diesel exhaust, and individual substances contained in it, can contribute to mutations in cells that can lead to cancer. At current levels of population exposure, DPM poses the highest cancer risk of any TAC evaluated by California's environmental health risk assessment and risk management agencies. Diesel engines are a major source of fine particle pollution. Exposure to diesel exhaust can irritate the eyes, nose, throat and lung, and it can cause coughs and aggravate asthma. As with fine particle pollution in general, the elderly, children and those with chronic lung or heart disease are most sensitive to adverse acute and chronic health effects from DPM.

Carbon Monoxide (CO): Carbon monoxide comes primarily from combustion processes and motor vehicles because of incomplete combustion of fuel. Elevated concentrations of CO weaken the heart's contractions and lower the amount of oxygen carried by the blood. Carbon monoxide is especially dangerous for people with chronic heart disease. Inhalation of moderate levels of CO can cause nausea, dizziness and headaches. Carbon monoxide can be (and due to poisoning indoors and in vehicles, has been) fatal at high concentrations.

Nitrogen Oxides (NOx): Major sources of NOx include power plants, large industrial facilities and motor vehicles. Nitrogen oxides are emitted from combustion processes. They irritate the nose and throat. Elevated levels of NOx can increase susceptibility to respiratory infections, especially in people with asthma. A principal concern associated with the presence of NOx is that it is a precursor in the formation of ozone.

Sulfur Dioxide (SO_2): Sulfur compounds are emitted from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized to SO_2 during the combustion process. Major sources of SO_2 include power plants, large industrial facilities, diesel vehicles (especially those that burn high-sulfur diesel fuel), and oil-burning residential heaters. Emissions of sulfur dioxide aggravate lung diseases, especially bronchitis. Exposure to high levels of SO_2 constricts breathing passages, especially in asthmatics and people involved in moderate to heavy exercise. It can cause wheezing, shortness of breath, and

coughing. High levels of particulate matter appear to worsen the effects of sulfur dioxide, and long-term elevated exposures to both pollutants lead to higher rates of respiratory illness.

Sulfates: Sulfates (SO_4^{2-}) are the fully oxidized ionic form of sulfur. Sulfur dioxide emitted from the combustion of sulfur-containing fuels is converted to sulfate compounds in the atmosphere. The conversion of SO_2 to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features. Elevated levels of sulfate can decrease ventilatory function, aggravate asthma symptoms, and increase the risk of cardio-pulmonary disease. (In addition, sulfates are particularly effective in degrading visibility, and, due to fact that they are usually acidic, can harm ecosystems and damage materials and property.)

Lead (Pb): Lead, a metal, is emitted from industrial facilities and from the sanding or removal of old lead-based paint. With the removal of lead-based additives from gasoline, the primary source of lead emissions is now smelting and processing of the metal. Airborne lead may settle and become a toxic exposure concern in soil, especially where children play and get soil on their hands. Lead affects the brain and other parts of the body's nervous system. Exposure to lead in very young children impairs the development of the nervous system, and harms the kidneys and blood-forming processes in the body.

Vinyl Chloride (VC): Vinyl chloride is a chemical building block, or monomer, used in the production of polyvinyl chloride (PVC). PVC is used to make materials, including pipes, used in the construction, packaging, electrical and transportation industries. Major sources of VC include PVC production and fabrication facilities and, at the other end of PVC's life cycle, as PVC deteriorates, landfills and publicly-owned treatment works. VC is carcinogenic. Exposure to VC has been associated with a rare cancer, liver angiosarcoma, in workers, and with tumors of the liver, lungs, mammary glands and the nervous system in animals. The state ambient air quality standard reflects the limit of detection for VC in ambient air when the standard was promulgated, in 1978. By 1990, when state staff prepared the technical support document for identifying VC as a TAC, VC had not been detected in ambient air at any of the samplers in CARB's TAC monitoring network, although ambient hot spot sampling had detected VC at levels up to 150 percent of the standard. VC is primarily of concern as a carcinogenic TAC at hot spots. It is regulated as a TAC to allow implementation of health-protective control measures at levels below the ambient standard.[77]

[77] *CARB, Proposed Identification of Vinyl Chloride as a Toxic Air Contaminant. Staff Report/Executive Summary. October 1990. http://www.arb.ca.gov/toxics/id/summary/vinyl.pdf.*

b. Existing Conditions

(1) Regional Context

The proposed project is located within the South Coast Air Basin, an approximately 6,745-square-mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino Counties, in addition to the San Gorgonio Pass area in Riverside County. Its terrain and geographical location determine the distinctive climate of the Basin, as the Basin is a coastal plain with connecting broad valleys and low hills.[78]

The Southern California region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes.[79] The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms or Santa Ana winds[80] — dry, warm, often hot, blustery winds that blow from the desert into the Basin and towards the sea.[81] The extent and severity of the air pollution problem in the Basin is a function of the area's natural physical characteristics (weather and topography), as well as man-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and dispersion of pollutants throughout the Basin, which is an area of high pollution potential.[82]

The greatest air pollution impacts throughout the Basin occur from June through September. This condition is generally attributed to the large amount of pollutant emissions, light winds, and shallow vertical atmospheric mixing. This frequently reduces pollutant dispersion, thus causing elevated air pollution levels. Pollutant concentrations in the Basin vary with location, season, and time of day. Ozone concentrations, for example, tend to be lower along the coast, higher in the near inland valleys, and lower in the far inland areas of the Basin and adjacent desert. Over the past 30 years, substantial progress has been made in reducing air

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[78] *SCAQMD, CEQA Air Quality Handbook (April 1993), p. A8-1.*

[79] *Ibid., p. A8-1.*

[80] *SCAQMD, CEQA Air Quality Handbook (April 1993), p. A8-1.*

[81] *Robert Fovell, "The Santa Ana Winds FAQ," http://www.atmos.ucla.edu/~fovell/ASother/mm5/SantaAna/-santa_ana_faq.html; www.atmos.ucla.edu/~fovell/ASother/mm5/SantaAna/winds.html (accessed Aug. 2008).*

[82] *See Ralph W. Keith, Senior Meteorologist, SCAQMD,"A Climatological/Air Quality Profile: California South Coast Air Basin" (Nov. 1980), http://www.arb.ca.gov/research/apr/reports/l6016.pdf (in CARB's online library; accessed Aug. 2008), pp. 87-95.*

pollution levels in Southern California.[83] With regard to ambient air quality standards, the Basin remains in nonattainment status for ozone, PM_{10} and $PM_{2.5}$, however.

The SCAQMD has released a Basin-wide air toxics study (MATES III, Multiple Air Toxics Exposure Study, September 2008). The MATES III Study represents one of the most comprehensive air toxics studies ever conducted in an urban environment. The Study was aimed at estimating the cancer risk from toxic air emissions throughout the Basin by conducting a comprehensive monitoring program, an updated emissions inventory of toxic air contaminants, and a modeling effort to fully characterize health risks for those living in the Basin. The Study concluded that the average carcinogenic risk from air pollution in the Basin is approximately 1,200 in one million. Mobile sources (e.g., cars, trucks, trains, ships, aircraft, etc.) represent the greatest contributors. Approximately 85 percent of the risk is attributed to diesel particulate emissions, approximately 10 percent to other toxics associated with mobile sources (including benzene, butadiene, and formaldehyde), and approximately 5 percent of all carcinogenic risk is attributed to stationary sources (which include industries and other certain businesses, such as dry cleaners and chrome plating operations).

As part of the MATES III Study, the SCAQMD has prepared a series of maps that show regional trends in estimated outdoor inhalation cancer risk from toxic emissions, as part of an ongoing effort to provide insight into relative risks. The maps' estimates represent the number of potential cancers per million people associated with a lifetime of breathing air toxics (24 hours per day outdoors for 70 years) in parts of the area. The MATES III Los Angeles County map, which is the most recently available map to represent existing conditions near the project area is provided in Figure IV.A-1 on page IV.A-24. As shown there, the estimated cancer risk is approximately 1000 cancers per million, while the vast majority of the area is between 600 to 1200 cancers per million.[84] Generally, the risk from air toxics is lower near the coastline: it increases inland, with higher risks concentrated near large diesel sources (e.g., freeways, airports, and ports).

(2) Local Area Conditions

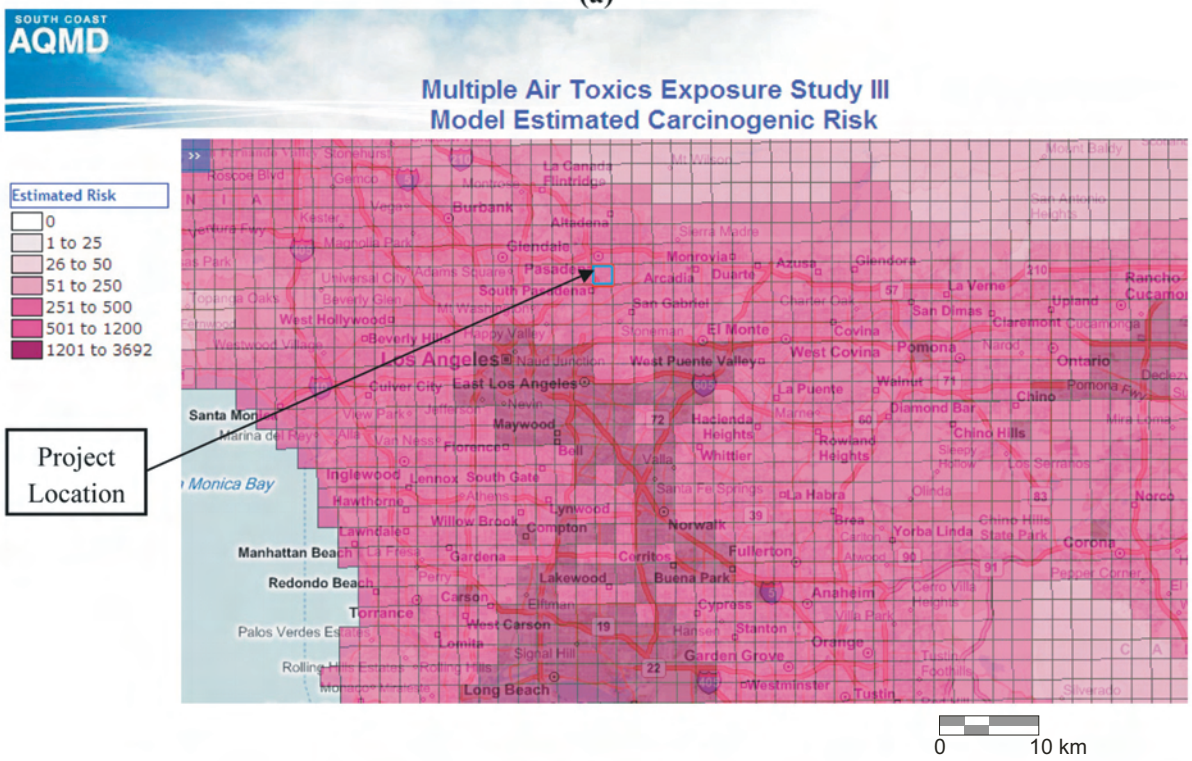
(a) Existing Pollutant Levels at Nearby Monitoring Station

The SCAQMD maintains a network of air quality monitoring stations located throughout the Basin and has divided the Basin into air monitoring areas called "source/receptor areas" (SRAs). The project site is located in the West San Gabriel Valley SRA (SRA 8). The

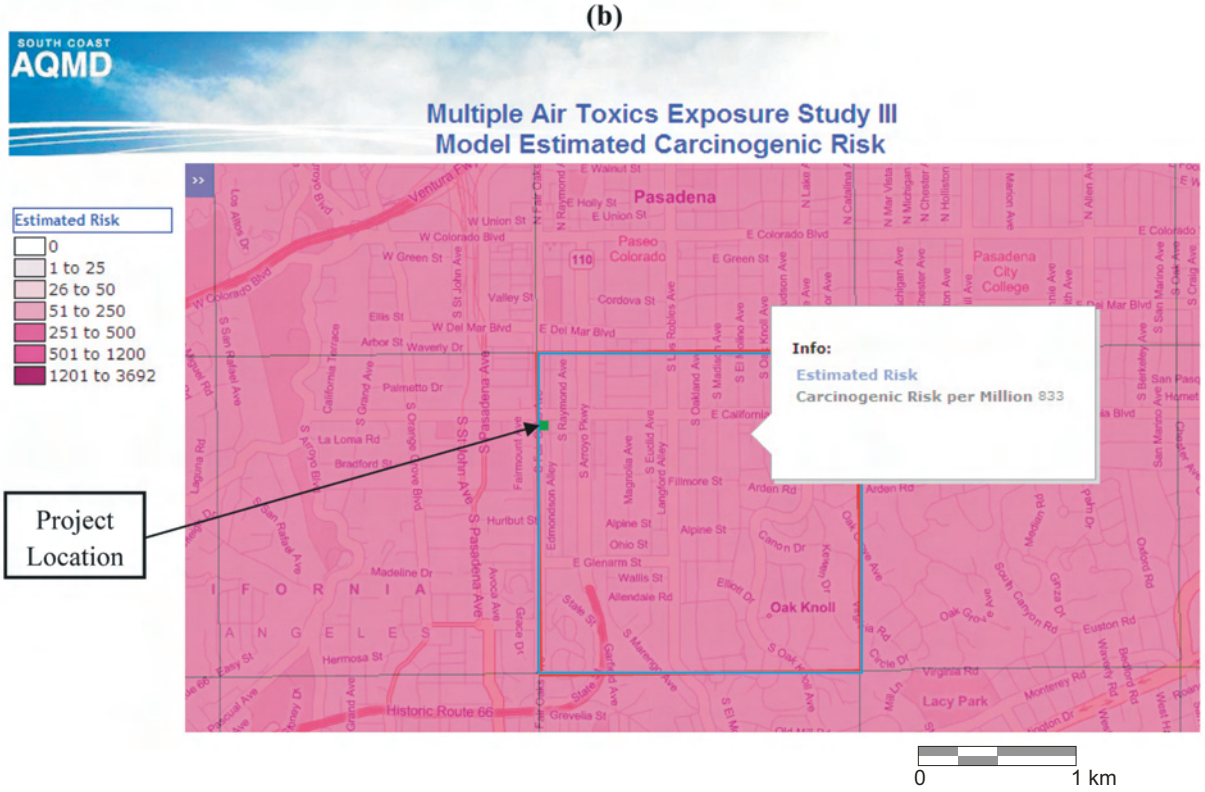
[83] *See SCAQMD, "1996 Air Quality and Trends," p. 1; "2002 Air Quality and Trends," p. 6; and other reports available at http://www.aqmd.gov/smog/AIrQualitybyYear.htm.*

[84] *http://www2.aqmd.gov/webappl/matesiii.*

(a)



(b)



PCR

N

Figure IV.A-1
MATES III
Risk Estimate Maps

Source: SCAQMD, 2008.

monitoring station for this area is the Pasadena station, which is located on the California Institute of Technology campus at 752 South Wilson Avenue in the City of Pasadena, approximately 1.25 miles southeast of the project site. This station presently monitors pollutant concentrations of O_3, CO, NO_2, and $PM_{2.5}$. The closest monitoring station that monitors PM_{10} and SO_2 is the East San Fernando Valley Monitoring Station, located at 228 West Palm Avenue in Burbank. It is located approximately 9.94 miles northwest of the project site. The most recent annual data available from this monitoring station are from 2007. The data for the years 2003 to 2007 in Table IV.A-3 on page IV.A-26 show the following for each pollutant:

Ozone - The maximum 1-hour O_3 concentration recorded at the SRA 8 monitoring station during the 2003-2007 period was 0.15 parts per million (ppm), recorded in 2006. During this period, the California standard was exceeded on between 13 and 27 days annually and the national standard was exceeded on between 1 and 5 days. The maximum 8-hour O_3 concentration was 0.117 ppm, recorded during 2006. California established an 8-hour ozone standard of 0.070 ppm in 2006. The SRA 8 monitor found ozone above that level on between 6 and 31 days annually from 2004 to 2007, the only years for which 8-hour O_3 data are available. The national standard was exceeded between 5 and 21 times annually.

Respirable Particulate Matter (PM_{10}) - The highest average 24-hour PM_{10} concentration was 109 $\mu g/m^3$, recorded in both 2005 and 2007. During the years 2003-2007, between 7 and 11 percent of the air samples taken at the SRA 7 monitoring station (representing between 18 and 48 days, as samples were collected every 6 days) showed (6-day average) concentrations above the California 24-hour average standard for PM_{10}. No sample showed an exceedance of the corresponding national standard. The maximum annual arithmetic mean was 40 $\mu g/m^3$, in 2007. The annual average PM_{10} concentration was above the California standard, but not the national standard, every year.

Fine Particulate Matter ($PM_{2.5}$) - The highest 24-hour $PM_{2.5}$ concentration recorded was 120.6 $\mu g/m^3$, in 2003. Between 0 and 1 percent of the air samples (representing between 1 and 11 days, as samples were collected every day) showed concentrations above the year's most stringent national 24-hour average standard for $PM_{2.5}$. (The USEPA lowered the standard from 65 $\mu g/m^3$ to 35 $\mu g/m^3$ in 2006.) The maximum annual arithmetic mean was 18.6 $\mu g/m^3$, in 2003. The annual average $PM_{2.5}$ concentration was above the California standard and the national standard every year.

Carbon Monoxide - The highest 1-hour CO concentration recorded in 2003-2007 was 7 ppm, in 2004. The maximum 8-hour CO concentration was 3.4 ppm, also recorded during 2004. There were no exceedances of the California or national 1-hour or 8-hour CO standards.

Table IV.A-3

Pollutant Standards and Ambient Air Quality Data from Representative Monitoring Stations

Pollutant Standard and Data	**2003**	**2004**	**2005**	**2006**	**2007**
Ozone					
1-Hour: C=0.09 ppm; N=0.12 ppm [a]					
Max. Concentration (ppm)	0.145	0.130	0.149	0.150	0.149
Days > California Standard	***13***	***27***	***13***	***25***	***13***
Days > National Standard [a]	***2***	*1*	*2*	*5*	*3*
8-Hour: C=0.070 ppm; N=0.08 ppm [b]					
Max. Concentration (ppm)	0.113	0.103	0.1	0.117	0.102
4th Highest 8-hour Conc. (ppm)	0.086	0.093	0.089	0.095	0.072
Days > California Standard [c]	--	***31***	***12***	***24***	***6***
Days > National Standard [b]	***5***	***9***	***5***	*7*	***21***
Particulate Matter (PM_{10})					
24-Hour: C=50 µg/m^3; N=150 µg/m^3 [d]					
Max. Concentration (µg/m^3)	81	74	109	71	109
% of Samples [e] *> Calif. Standard*	***7(14.0)****	***7(11.7)***	***11***	***10(18.5)***	***11(20)***
% of Samples [e] *> National Standard*	*0*	*0*	*0*	*0*	*0*
Annual: C=20 µg/m^3; N=50 µg/m^3 [f]					
Annual Arithmetic Mean (µg/m^3)	38.1	37.5	40	35.6	40
> California Standard?	***Yes***	***Yes***	***Yes***	***Yes***	***Yes***
> National Standard?	*No*	*No*	*No*	*No*	*No*
Particulate Matter ($PM_{2.5}$)					
24-Hour: N=65 or 35 µg/m^3 [g]					
Max. 24-hour Concentration (µg/m^3)	120.6	59.4	62.9	45.9	56.5
% of Samples [h] *> National Standard* [g]	***1(0.9)***	***0***	***0***	***0***	***0***
Annual: C=12 µg/m^3; N=15 µg/m^3 (AAM)					
Annual Arithmetic Mean (µg/m^3)	18.6	16.6	15.1	13.4	16.8
> California Standard?	***Yes***	***Yes***	***Yes***	***Yes***	***Yes***
> National Standard?	***Yes***	***Yes***	***Yes***	***Yes***	***Yes***
Carbon Monoxide					
1-Hour: C=20 ppm; N=35 ppm					
Max. Concentration (ppm)	4	7	3	4	3
Days > California Standard	*0*	*0*	*0*	*0*	*0*
Days > National Standard	*0*	*0*	*0*	*0*	*0*
8-Hour: C=9 ppm [i]; N=9 ppm					
Max. Concentration (ppm)	3	3.4	2.8	2.8	2.4
Days > California Standard [i]	*0*	*0*	*0*	*0*	*0*
Days > National Standard	*0*	*0*	*0*	*0*	*0*

Table IV.A-3 (Continued)

Pollutant Standards and Ambient Air Quality Data from Representative Monitoring Stations

Pollutant Standard and Data	**2003**	**2004**	**2005**	**2006**	**2007**
Nitrogen Dioxide					
1-Hour: C=0.25 ppm					
Max. Concentration (ppm)	0.09	0.12	0.09	0.12	0.09
Days ≥ California Standard	*0*	*0*	*0*	*0*	*0*
Annual: C=0.053 ppm					
Annual Arithmetic Mean (ppm)	0.0241	0.027	0.0246	0.0245	0.0246
≥ California Standard?	*No*	*No*	*No*	*No*	*No*
Sulfur Dioxide [j]					
1-Hour: C=0.25 ppm					
Max. Concentration (ppm)	0.02	002	0.01	0.01	0.01
Days > California Standard	*0*	*0*	*0*	*0*	*0*
24-Hour: C=0.04 ppm; N=0.14 ppm [k]					
Max. Concentration (ppm)	0.012	0.01	0.003	0.004	0.003
Days > California Standard	*0*	*0*	*0*	*0*	*0*
Days > National Standard	*0*	*0*	*0*	*0*	*0*
Annual: N=0.03 ppm					
Annual Arithmetic Mean (ppm)	--	--	--	0.0006	0.0010
> National Standard?	*N/A*	*N/A*	*N/A*	*No*	*No*
Lead					
30-Day (Monthly): C=1.5 $\mu g/m^3$					
Max. 30-Day Average Conc. ($\mu g/m^3$)	--	--	--	--	--
% of Samples [l] > Calif. Standard	--	--	--	--	--
Calendar Quarter: N=1.5 $\mu g/m^3$					
Max. Quarterly Avg. Conc. ($\mu g/m^3$)	--	--	--	--	--
% of Samples [l] ≥ National Standard	--	--	--	--	--
Sulfate					
24-hour: C=25 $\mu g/m^3$					
Max. 24-hour Concentration ($\mu g/m^3$)	12.7	11.2	11.2	28.7	--
% of Samples [l] > Calif. Standard	*0*	*0*	*0*	*1(1.7)*	--

C = California ambient air quality standard; N = national ambient air quality standard; ppm = parts per million;

$\mu g/m^3$ = micrograms per cubic meter; N/A = not applicable; -- = not available or not reported.

[a] *The standard was attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm was ≥ 1. As of June 15, 2005, the USEPA revoked the 1-hour ozone standard in all areas except certain areas outside of California.*

[b] *To attain this national standard, the 3-year average of the 4th-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year had to be ≤ 0.08 ppm.*

Table IV.A-3 (Continued)

Pollutant Standards and Ambient Air Quality Data from Representative Monitoring Stations

Effective May 27, 2008, that value became 0.075 ppm, although the 0.08 ppm standard has remained in effect during transition.

[c] *The California 8-hour standard for ozone went into effect in 2006.*

[d] *May be exceeded once per year on average over 3 years.*

[e] *At this monitoring station, PM_{10} samples were collected every six days; each reflects a six-day period.*

[f] *The USEPA revoked the national annual PM10 standard, effective December 17, 2006.*

[g] *In September 2006, the 24-hr $PM_{2.5}$ standard was changed from 65 $\mu g/m^3$ to 35 $\mu g/m^3$. The exceedance data shown here for 2002-2005 relate to the old standard. The 2006 exceedance percentage relates to the new standard.*

[h] *At this monitoring station, $PM_{2.5}$ samples were collected every day.*

[i] *A different 8-hour California CO standard applies in the Lake Tahoe Air Basin.*

[j] *There is a secondary national ambient air quality standard for SO_2 (0.5 ppm, 3-hour average) that is not listed in this table. Secondary standards are for protecting resources other than human health. SO_2 is the only substance for which a secondary standard is different than the primary standard. California does not have the two separate types of ambient air quality standard.*

[k] *May be exceeded once per year.*

[l] *Samples were collected every six days; each reflects a six-day period.*

Source: South Coast Air Quality Management District, Air Quality Data Tables (http://aqmd.gov/smog/-historicaldata.htm); California Air Resources Board, Ambient Air Data Summaries, 2002-2007.

Nitrogen Dioxide - The highest 1-hour NO_2 concentration was 0.12 ppm, recorded both in 2004 and in 2006. The highest annual arithmetic mean was 0.0246 ppm, in 2005. There were no exceedances of the California or national standards.

Sulfur Dioxide - The highest 1-hour concentration of SO_2 was 0.02 ppm, recorded in 2003 and 2004. The maximum 24-hour concentration was 0.012 ppm, recorded in 2003. The arithmetic annual average concentration was 0.0006 ppm in 2006 and 0.0010 ppm in 2007, the only years for which annual averages are available. There were no exceedances of California or national standards.

Lead - The South Coast Air Basin is currently in compliance with California and national standards for lead, and monitoring for lead is not conducted at the Pasadena or Burbank monitoring stations. The primary sources of atmospheric lead, leaded gasoline and lead-based paint, are no longer commercially available in the Basin due to regulations that have been particularly successful in protecting public health.

Sulfates – Samples were collected every 6 days. The highest (6-day average) 24-hour SO_4^{2-} concentration in 2003-2006[85] was 28.7 µg/m^3, recorded in 2006. There was one exceedance of the California standard recorded also in 2006.

(b) Existing Health Risk in the Surrounding Area

As shown in Table IV.A-1, using exposure estimates for 2001, the project site is located within an estimated cancer risk zone of 750 to 1,000 cases per one million population for lifetime exposure to ambient air. In this regard, the project site is comparable with other inland areas in Los Angeles County. However, the visual resolution of the data in Table IV.A-1 is 1 kilometer by 1 kilometer, and individual facilities and their impacts on individual neighborhoods are not discernable on the map.[86]

(c) Sensitive Receptors and Locations

Some population groups, referred to as sensitive receptors, including children, elderly, and acutely and chronically ill persons (especially those with cardio-respiratory diseases), are considered more sensitive to air pollution than others. Sensitive land uses are those associated with sensitive receptors, including homes, schools, hospitals and care facilities. Sensitive land uses in the project vicinity are shown in Figure IV.A-2 on page IV.A-30 and include the following:

- The nearest sensitive receptors are located in single-family homes located along Concordia Court, approximately 450 feet northwest of the project site. Additional residences are northwest of the project, on the south side of Palmetto Drive, about 840 feet from the proposed project location. Other residences are located on the east side of South Arroyo Parkway, south of California Boulevard, approximately 885 feet east of the proposed building footprint on the project site. There are also single- and multi-family residential uses located along Pico Street approximately 900 feet east of the project site.

- Huntington Memorial Hospital is located approximately 500 feet southwest of the proposed building footprint.

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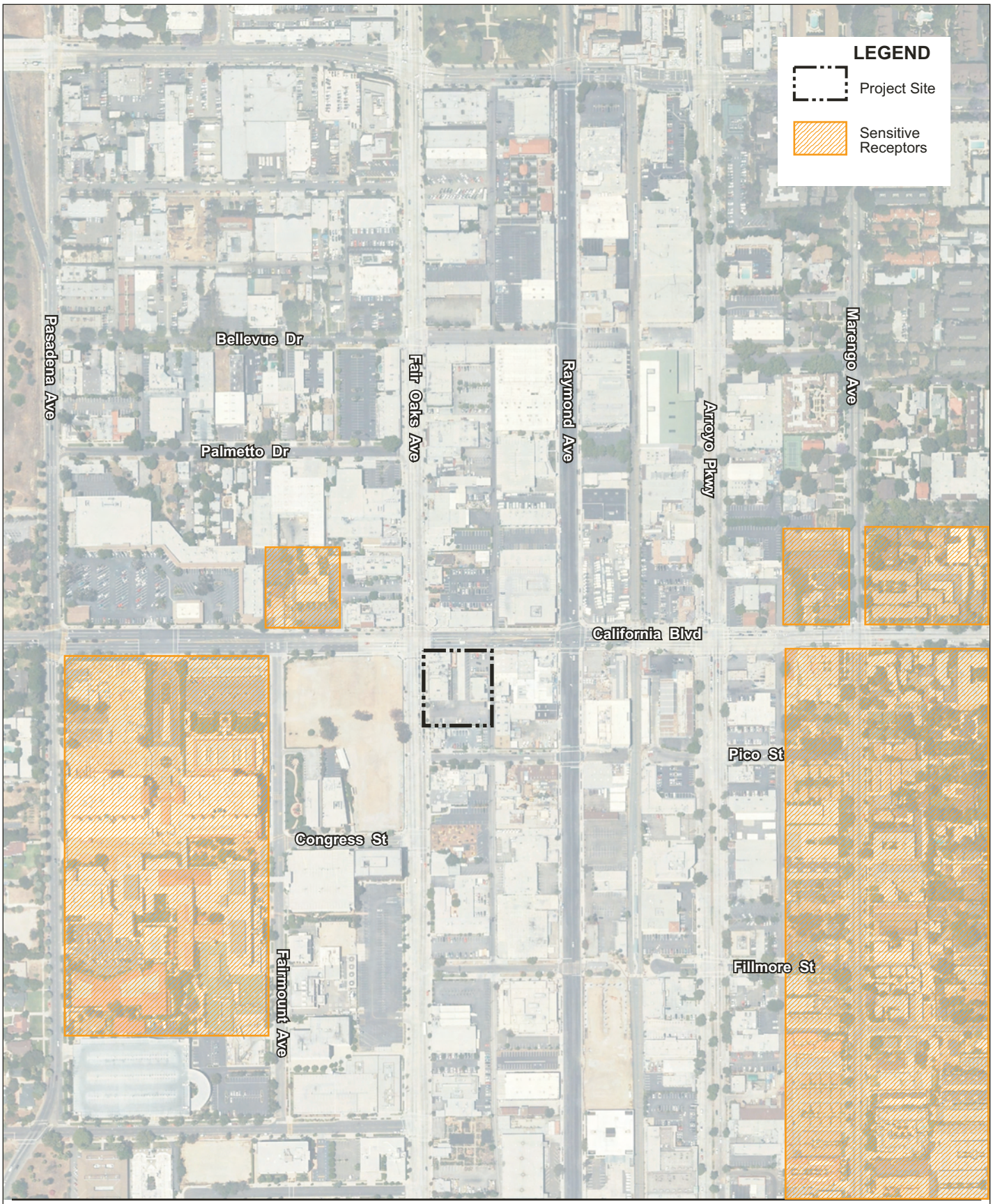
[85] *As of this writing, "Due to technical difficulties," sulfate data for 2007 were not yet available. SCAQMD, 2007 Air Quality: http://www.aqmd.gov/smog/AQSCR2007/aq07card.pdf, accessed July 2008.*

[86] *http://www.arb.ca.gov/toxics/cti/hlthrisk/cncrinhl/cncrinhl.htm#whatisavail.*



PCR

Figure IV.A-2
Sensitive Receptors

Source: PCR Services Corporation, 2008; Google Earth, 2008.

3. ENVIRONMENTAL IMPACTS

a. Methodology

The analysis of potential impacts on local and regional air quality that may result from construction and long-term operations of the proposed project was conducted as follows:

(1) Construction Impacts

(a) Regional and Global

Construction generates pollutant emissions both on-site and off-site. The term "regional emissions" comprises both. On-site emissions include soot from diesel-powered equipment, and fugitive dust generated by moving earth and driving on unpaved surfaces. Off-site emissions include diesel exhaust from construction vehicles making their way to and from the site, and vehicle exhaust from worker commuting.

Daily regional emissions from construction activities were forecast using a conservative[87] estimate of the construction schedule. As an example, it was assumed that construction activities will occur within a short period of time, producing higher daily emissions than a prolonged schedule, and at an early date, when fewer construction fleet emission control requirements may have become effective, and fewer emission control technology innovations may have become available. URBEMIS 2007 provided the required mobile-source and fugitive dust emission factors, and produced the emissions forecast.[88] (See Appendix B of this EIR for details, including a complete listing of construction equipment assumptions by phase and duration, and other model input assumptions used in this analysis.) The forecast regional emission rates for construction were compared to mass daily thresholds of significance published by the SCAQMD.[89]

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[87] *The term "conservative," as used in this document, means health-conservative. In other words, in the face of the uncertainty inherent in health risk assessment, conservative methods employ models, assumptions and numerical values which are unlikely to produce estimates that understate true health risk. Methods that risk assessors consider conservative are more likely to produce heath risk estimates that are high, and thus, from a risk management perspective, to err on the side of health protection.*

[88] *URBEMIS 2007 is an emissions estimation/evaluation model developed by CARB, and based, in part, on SCAQMD CEQA Air Quality Handbook guidelines and methodologies.*

[89] *SCAQMD Air Quality Significance Thresholds (Rev. December 2007): http://www.aqmd.gov/ceqa/handbook/-signthres.pdf.*

(b) Local

The SCAQMD has developed a set of mass emission rate look-up tables providing thresholds for use in evaluating localized impacts that may result from construction-period emissions of NO_X, CO, PM_{10} and $PM_{2.5}$.[90] The emission rate thresholds, called localized significance thresholds (LSTs), depend on the size of the project construction site, distance from the site to sensitive receptors, local meteorological conditions and, except for PM, background air quality conditions. Although use of the SCAQMD LSTs by local government is voluntary, it has become common practice.

For each pollutant, the basic procedure by which the SCAQMD prepared LSTs involved two steps, (1) establishing an air concentration or concentration change that would constitute a threshold of significance, and (2) back-calculating, using dispersion modeling, emission rates that would be expected to generate pollution levels meeting the threshold. Those emission rates, expressed in pounds per day[91], are the values given as LSTs in the LST tables. The tables present LSTs (as "allowable emissions") by pollutant, SRA, size of the construction site (1 acre, 2 acres or 5 acres), and distance from the boundary of the site to the receptor (25, 50, 100, 200 or 500 meters).[92] SCAQMD guidance for using the LSTs states, "Receptor locations include residential, commercial and industrial land use areas; and any other areas where persons can be situated for an hour or longer at a time."[93] The NO_x and CO LSTs are for receptors in general, while the SCAQMD suggests that particulate matter LSTs are for "sensitive receptor" locations — such as residences, hospitals and convalescent facilities — where an individual can remain for 24 hours, which is the shortest averaging time for particulate matter ambient air quality standards.[94] The SCAQMD set the significance threshold level for NO_X and CO LSTs at the most stringent applicable ambient air quality standards for NO_2 and CO. The SCAQMD developed NO_X LSTs in consideration of gradual conversion of emitted NO_X [NO] to NO_2.) The SCAQMD is in attainment for both NO_2 and CO, and the LSTs are emission rates in pounds per day that, in

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[90] *See SCAQMD, Final Localized Significance Threshold Methodology, June 2003: http://www.aqmd.gov/ceqa-/handbook/LST/Method_final.pdf and http://www.aqmd.gov/ceqa/handbook/LST/appC.pdf, accessed from http://www.aqmd.gov/ceqa/handbook/LST/LST.html. For $PM_{2.5}$, see SCAQMD, Final Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds, October 2006: http://www.aqmd.gov/ceqa/-handbook/PM2_5/finalmeth.doc and http://www.aqmd.gov/ceqa/handbook/PM2_5/finalAppB.doc, accessed from http://www.aqmd.gov/ceqa/handbook/PM2_5/PM2_5.html.*

[91] *SCAQMD, Final Localized Significance Threshold Methodology, June 2003: http://www.aqmd.gov/¬ceqa/-handbook/LST/Method_final.pdf, pp. 2-10, 2-11.*

[92] *SCAQMD, Final Localized Significance Threshold Methodology, June 2003, Appendix B, Localized Significance Threshold Mass Rate Look-Up Tables: http://www.aqmd.gov/ceqa/handbook/LST/appC.pdf.*

[93] *SCAQMD, Final Localized Significance Threshold Methodology, June 2003: http://www.aqmd.gov/ceqa/-handbook/LST/Method_final.pdf, p. 3-2.*

[94] *Ibid., p. 3-2. Regarding particulate matter, this portion of the SCAQMD LST guidance was written for the PM_{10} LSTs but the point applies equally to $PM_{2.5}$.*

consideration of meteorological conditions and peak background levels in each SRA, would not result in concentrations, at receptor locations, above the attained ambient air quality standards. At the time the SCAQMD determined the LSTs, the most stringent applicable ambient air quality standards for NO_2 and CO were a 1-hour state standard of 0.25 ppm for NO_2 and 1-hour and 8-hour standards for CO of 9 ppm and 20 ppm, respectively. CARB has since lowered the state NO_2 standard to 0.18 ppm, effective March 20, 2008, but the SCAQMD has yet to update the LSTs for NO_X. Therefore, a scaling factor based on the difference in the NO_X standard and allowable increment must be applied to derive the correct LST. The NO_X and CO LSTs are the same for both construction and operation. For PM, however, the construction and operation LSTs differ.

It is difficult to set allowable emission levels for PM. The Basin has not attained the state or national 24-hour ambient air quality standards for PM_{10}, the national 24-hour standard for $PM_{2.5}$, or the state or national annual average standard for PM_{10} or $PM_{2.5}$. The SCAQMD could not establish mass emission rates that would not cause or contribute to an exceedance of a standard as the allowable emission levels for PM, because where standards are exceeded those emission rates would have to be less than zero. To establish LSTs for construction emissions of PM_{10}, the SCAQMD referenced its fugitive dust rule, Rule 403, which prohibits construction activities from causing a difference between upwind and downwind PM_{10} levels of 50 $\mu g/m^3$ or more, as measured by 24-hour samples. Based on this rule, the SCAQMD established a concentration difference of 10.4 $\mu g/m^3$ as the level of significance for establishing PM_{10} construction emission LSTs. The LSTs are emission rates from construction in pounds per construction day that, in consideration of meteorological conditions in each SRA, would not result in PM_{10} concentrations, at receptor locations, more than 10.4 $\mu g/m^3$ above background. (Note that an area's background PM_{10} levels play no role in determining its construction PM_{10} LSTs.)

To establish LSTs for construction emissions of $PM_{2.5}$, SCAQMD staff began by looking at data on the portion of PM_{10} that is $PM_{2.5}$. They found a consistent result that, in fugitive dust from construction activities, 21 percent of the PM_{10} is $PM_{2.5}$. Applying that fraction to the district's existing significance level for PM_{10}, a concentration difference of 10.4 $\mu g/m^3$, produced a result of approximately 2.2 $\mu g/m^3$. District staff did not recommend a concentration difference of 2.2 $\mu g/m^3$ as the significance level for $PM_{2.5}$, however, because fugitive dust is not the main source of $PM_{2.5}$. Combustion emissions from off-road construction equipment contribute the preponderance of $PM_{2.5}$ emitted from construction sites. Data showed that 89 percent of the PM_{10} in such emissions is $PM_{2.5}$. The contribution of such emissions to overall $PM_{2.5}$ emissions can be "three to four times" the $PM_{2.5}$ contribution from fugitive dust, district staff noted. As a result, staff recommended that the 2.2 $\mu g/m^3$ value be "adjusted upward" by approximately a factor of four, resulting in a value that was close enough to 10.4 $\mu g/m^3$ to recommend using a concentration difference of 10.4 $\mu g/m^3$ as the significance level for construction emissions of $PM_{2.5}$, the same level the district used for PM_{10}.

The analysis here employed SCAQMD LSTs as follows: Localized (on-site) emission rate estimates for construction activities were derived from the regional (on- and off-site) emission rate forecasts by subtracting off-site emissions (e.g., from construction worker commuting, and from delivery and haul truck trips). The localized emission rate estimates were then compared to appropriate values in the LST tables based on project acreage and distance to receptors. The analysis used LST values specific to SCAQMD SRA 8 (West San Gabriel Valley), which contains the project site. The comparison constituted an initial screen to judge the need for dispersion modeling.

If estimated construction emissions exceeded the screening-level look-up table values, the dispersion of on-site construction emissions would then be modeled to estimate potential pollutant impacts at receptors for more precise evaluation. Dispersion analysis would be conducted using the Industrial Source Complex (ISCST3) model, a methodology that is consistent with the procedures outlined in the SCAQMD LST methodology document.[95]

(2) Operational Impacts

The analysis of post-construction air pollution impacts considered the current use of the project site as a baseline. The difference between future (planned) operation and current use served as the basis for evaluating the significance of operational impacts of the project. In this way, the analysis focused on net impacts.

(a) Regional

The analysis of the project's likely impact on regional air quality during long-term project operations (i.e., after construction is complete) looked at three types of sources: mobile, area and stationary. Mobile sources are off-site vehicle trips. Area sources involve multiple similar emissions on-site, within the area of the project, such as when residents use natural gas for heat or cooking, or use consumer products that contain solvents. Landscaping that uses fuel-powered equipment outdoors on-site is also considered an area source. The stationary sources considered in the analysis of regional impacts are those involved with generating electricity for the project.[96]

URBEMIS 2007 software was used to forecast the daily regional emissions from mobile and area sources that would occur during project operations, and also to estimate emissions

[95] *SCAQMD, Final Localized Significance Threshold Methodology, June 2003: http://www.aqmd.gov/ceqa-/handbook/LST/Method_final.pdf, passim.*

[96] *A review of the proposed project's site plan and related project description did not identify any new or modified individually significant stationary source on-site.*

associated with current uses of the site. In calculating mobile source emissions, the URBEMIS 2007 default trip length assumptions were applied to average daily trip estimates from a traffic analysis to arrive at vehicle miles traveled (VMT). Stationary source emissions were compiled using procedures outlined in the SCAQMD's CEQA Handbook.[97] The forecast regional emission rates for operation of the project were compared to mass daily thresholds of significance published by the SCAQMD.[98]

(b) Local

As it has done for construction impacts, the SCAQMD has developed a set of mass emission rate look-up tables providing thresholds for use in evaluating localized impacts that may result from emissions of NO_X, CO, PM_{10} and $PM_{2.5}$ during operation of a project.[99] As noted above in the discussion of construction impacts methodology, the SCAQMD localized significance thresholds for NO_X and CO are the same for both construction and operation. For PM, however, the LSTs for operational impacts differ from the construction LSTs.

To develop LSTs for emissions of PM_{10} from operation of a project, the SCAQMD turned to its Rule 1303, which contains requirements for new source review. Table A-2 of that rule lists 2.5 $\mu g/m^3$, with a 24-hour averaging time, as the "Allowable Change in Concentration" or a "Significant Change in Air Quality Concentration" of PM_{10} for the purposes of the rule. Hence, SCAQMD established an off-site concentration difference of 2.5 $\mu g/m^3$ as the level of significance for establishing LSTs for operational PM_{10} emissions. The LSTs are emission rates from operation that, in consideration of meteorological conditions in each SRA, would not result in PM_{10} concentrations, at receptor locations, more than 2.5 $\mu g/m^3$ above background.

For operational emissions of $PM_{2.5}$, as for construction emissions, SCAQMD staff began by looking at data on the portion of PM_{10} that is $PM_{2.5}$. Operational emissions of the PM of concern come primarily from fuel combustion. Staff found that 99 percent of the PM_{10} from

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[97] *See SCAQMD, CEQA Air Quality Handbook (April 1993; portions "Changed November 1993"), Chapter 9 and Appendix 9.*

[98] *SCAQMD Air Quality Significance Thresholds (Rev. December 2007): http://www.aqmd.gov/ceqa/handbook/-signthres.pdf. These SCAQMD based these thresholds in part on the federal Clean Air Act, and, to enable defining "significant" for CEQA purposes, defined the setting as the South Coast Air Basin. (See SCAQMD, CEQA Air Quality Handbook, April 1993, pp. 6-1 – 6-2.)*

[99] *See SCAQMD, Final Localized Significance Threshold Methodology, June 2003: http://www.aqmd.gov/ceqa-/handbook/LST/Method_final.pdf and http://www.aqmd.gov/ceqa/handbook/LST/appC.pdf, accessed from http://www.aqmd.gov/ceqa/handbook/LST/LST.html. For $PM_{2.5}$, see SCAQMD, Final Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds, October 2006: http://www.aqmd.gov/ceqa/-handbook/PM2_5/finalmeth.doc and http://www.aqmd.gov/ceqa/handbook/PM2_5/finalAppB.doc, accessed from http://www.aqmd.gov/ceqa/handbook/PM2_5/PM2_5.html.*

such combustion is $PM_{2.5}$. In light of that finding, district staff recommended that the level of significance for operational emissions of $PM_{2.5}$ be the same as the level for PM_{10}.

As for localized construction impacts, the analysis of localized operational impacts employed SCAQMD LSTs as follows: Localized (on-site) emission rate estimates were derived from the regional (on- and off-site) emission rate forecasts by subtracting off-site emissions. The localized emission rate estimates were then compared to values in the LST tables for the relevant SRA and the project's acreage and distance to receptors.

Impacts from another pollutant of concern, CO, were evaluated using data from a traffic study and the CALINE4 microscale dispersion model developed by Caltrans,[100] in combination with CARB's EMFAC2007[101] emission factors. In traffic studies, the term "level of service" (LOS) describes traffic performance at intersections or along roadway segments, and is generally expressed as a letter grade (A through F, with an A grade meaning the freest-flowing traffic). Traffic researchers and planning agencies generally assign LOS ratings to intersections based on the ratio of traffic volume (or demand) to capacity (V/C).[102] Lower V/C ratios correspond to better performance (freer-flowing traffic). SCAQMD suggests conducting a CO hotspots analysis according to a state Department of Transportation (Caltrans) protocol for any intersection where a proposed project would worsen the LOS below C, and for any intersection rated D or worse where the proposed project would increase the V/C ratio by 2 percent or more.[103] Projected CO concentrations were compared to ambient air quality standards and incremental increase thresholds to determine whether CO impacts from operation would be significant.

(3) Toxic Air Contaminants (TAC) Impacts (Construction and Operations)

The general procedure to evaluate potential impacts from TACs is to conduct a screening-level analysis, and to follow that with a more detailed analysis (including dispersion modeling) as necessary. The screening-level analysis consists of reviewing the proposed project's site plan and project description to identify any new or modified TAC emissions

[100] *See http://www.dot.ca.gov/hq/env/air/pages/calinemn.htm.*

[101] *See http://www.arb.ca.gov/msei/onroad/latest_version.htm.*

[102] *For an example LOS rating system for signalized intersections, see the City of Roseville, CA, Level of Service (LOS) Policy: http://www.roseville.ca.us/pw/engineering/transportation_planning/level_of_service_(los).asp.*

[103] *See, for example, SCAQMD, Letter from Steve Smith, Ph.D., to Mr. Oscar Orci, City of Banning, re Mitigated Negative Declaration (MND) for Tentative Tract Map 34335 (Messenger Investment Company), September 7, 2007 (http://www.aqmd.gov/CEQA/igr/2007/sept/MNDBanning.pdf), Attachment p. 2, and SCAQMD, Letter from Steve Smith, Ph.D., to Mr. Richard Masyczek, City of Hemet, re Mitigated Negative Declaration (MND) for Sam's Club Conditional Use Permit 05-9: Hemet, November 22, 2005 (http://www.aqmd.gov/CEQA/igr/-2005/nov/1101-02.pdf), Attachment p. 2.*

sources. If it is determined that the proposed project would introduce a new source, or modify an existing TAC emissions source, then downwind sensitive receptor locations are identified and site-specific dispersion modeling is conducted to evaluate project impacts. For this project, the screening-level analysis was sufficient.

(4) Greenhouse Gas Emissions (Construction and Operations)

Although protocols are available for calculating and reporting greenhouse gas (GHG) emissions, it is important to note that there is no clear guidance defining the extent to which direct or indirect GHG emissions resulting from a proposed project should be addressed and analyzed as part of the CEQA assessment process. To date, no state agency has promulgated significance criteria for such emissions. Nevertheless, this EIR endeavors to characterize the bulk of the GHG emissions that would be associated with the project by considering likely increases in use of on-road motor vehicles (mobile sources), electricity, water and natural gas.

The California Climate Action Registry (CCAR) has prepared the General Reporting Protocol (GRP) for calculating and reporting GHG emissions from a number of general and industry-specific activities.[104] No specific protocols are available for land use projects, so the CCAR GRP has been adapted to address GHG emissions from the project. The information provided in this section is consistent the CCAR GRP's minimum reporting requirements. The CCAR GRP recommends the separation of GHG emissions into three categories that reflect different aspects of ownership or control over emissions. They include:

- Scope 1: Direct, on-site combustion of fossil fuels (e.g., natural gas, propane, gasoline, and diesel).
- Scope 2: Indirect, off-site emissions associated with purchased electricity or purchased steam.
- Scope 3: Indirect emissions associated with other emissions sources, such as third-party vehicles and embodied energy.

CARB believes that consideration of so-called indirect emissions provides a more complete picture of the GHG footprint of a facility: "As facilities consider changes that would affect their emissions – addition of a cogeneration unit to boost overall efficiency even as it increases direct emissions, for example – the relative impact on total (direct plus indirect) emissions by the facility should be monitored. Annually reported indirect energy usage also aids the conservation awareness of the facility and provides information" to CARB to be considered

[104] *California Climate Action Registry, General Reporting Protocol Version 3.0, 2008.*

for future strategies by the industrial sector.[105] For these reasons, CARB has proposed requiring the calculation of direct and indirect GHG emissions as part of the AB 32 reporting requirements. Therefore, direct and indirect emissions have been calculated for the proposed project.

For purposes of this analysis, it is considered reasonable and is consistent with criteria pollutant calculations, to consider only the GHG emissions resulting from the incremental increase in usage of on-road mobile vehicles, electricity, and natural gas upon implementation of the project as project-related. Project construction activities such as demolition, hauling, and construction worker trips are also included in the GHG emissions inventory. In addition, since potential impacts resulting from GHG emissions are long-term rather than acute, GHG emissions are calculated on an annual basis. Construction emissions are calculated using the URBEMIS2007 model, which is based on OFFROAD2007 model outputs. OFFROAD 2007 is an emissions estimation model developed by CARB to calculate emissions from construction activities. The output values used in this analysis were adjusted to be project-specific, based on usage rates, type of fuel, and construction schedule. These values were then applied to the construction phasing assumptions used in our criteria pollutant analysis to generate GHG emissions values for each construction year (refer to Appendix B). URBEMIS2007 outputs report CO_2 emissions only. Not all GHGs exhibit the same ability to induce climate change; as a result, GHG contributions are commonly quantified in the equivalent mass of CO_2, denoted as CO_2e. Mass emissions are calculated by converting pollutant specific emissions to CO_2e emissions by applying the proper global warming potential (GWP) value.[106] These GWP ratios are available from the USEPA and published in the CCAR Protocol. By applying the GWP ratios, project related CO_2e emissions can be tabulated in metric tons per year. The CO_2e values are calculated for the two construction years as well as existing and project buildout conditions in order to generate a net change in GHG emissions for construction and operation (Appendix B). Construction output values used in this analysis are adjusted to represent a CO_2e value representative of CO_2, CH_4, and N_2O emissions from project construction activities. Construction CH_4 and N_2O values are derived from factors published in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories. These values are then converted to metric tons for consistency (refer to Appendix B).

Mobile source emission calculations associated with operation of the proposed project utilize a projection of annual vehicle miles traveled (VMT), which is derived from the Traffic

[105] *California Air Resources Board (ARB), 2007a. Initial Statement of Reasons for Rulemaking, Proposed Regulation for Mandatory Reporting of Greenhouse Gas Emissions Pursuant to the California Global Warming Solutions Act of 2006 (Assembly Bill 32). Planning and Technical Support Division Emission Inventory Branch, October 19, 2007.*

[106] *CO_2e was developed by the Intergovernmental Panel on Climate Change (IPCC), and published in its Second Assessment Report (SAR) 1996.*

and Parking Analysis conducted by Fehr and Peers, dated September 2008. These values account for the daily and seasonal variations in trip frequency and length associated with retail land-uses and residents traveling to and from work and other activities that require a commute. Net emission values are calculated based on the incremental increases from the existing conditions to the proposed project buildout conditions. Mobile source calculations also utilize EMFAC2007 and the CCAR GRP, Version 3.0 to generate emission factors for CO_2 and CH_4, and N_2O. These emission factors are then applied to the annual VMT calculated in the traffic study. It should be noted that greenhouse gas reduction factors from *Alternative Compliance Strategies*, contained in AB1493, were not applied in the EMFAC2007 software. Therefore, such emissions are likely overstated as emission factors for fleet mixes containing post 2009 vehicles would not emulate reductions that would otherwise go into effect as a result of SB1493.

The consumption of fossil fuels to generate electricity and to provide heating and hot water creates GHG emissions. Future fuel consumption rates are estimated based on specific square footage of the commercial/retail units, as well as predicted water supply needs of the proposed project. Natural gas and electricity usage factors derived from the Handbook are used to project fuel consumption rates. Embodied energy rates associated with the proposed project's future water supply needs are calculated using factors derived from the California Energy Commission (CEC). GHG emission factors from the CCAR protocol are then applied to the respective usage rates, to calculate annual greenhouse gas emissions in metric tons. It is difficult to identify the specific generating source of electricity particularly since the Los Angeles DWP produces power at City-operated plants and also imports power during peak demand periods. Thus, the emission factors used in this analysis represent a State-wide average of known power producing facilities, utilizing various technologies and emission control strategies, and do not take into account the DWP's unique emissions profile. In addition, these emission factors do not reflect targeted future reductions in GHG emissions under SB 1368 or the *LA Green Plan*. Thus, these emission factors are considered conservative and representative.

The California Energy Commission's estimate for energy intensity of the water use cycle in Southern California is used to calculate the energy usage related to water conveyance. Emission factors from the CCAR GRP, Version 3.0 are implemented in calculating the associated GHGs.

It is difficult to identify the specific generating source or sources of electricity for the project. The GHG emission factors used in this analysis represent a statewide average of known power producing facilities that use various technologies and emission control strategies. Therefore, these emission factors are considered conservative.

Not all GHGs exhibit the same ability to induce climate change. As a result, GHG contributions are commonly quantified in terms of what would be, in global warming potential (GWP), an equivalent mass of CO_2, denoted as CO_2e. Mass emissions are calculated by

converting pollutant specific emissions to CO_2e emissions by applying the proper global warming potential (GWP) value.[107] These GWP ratios are available from the USEPA and published in the CCAR protocol. By applying the GWP ratios, project related CO_2e emissions can be tabulated in metric tons per year. The CO_2e values were calculated for all four construction years as well as existing and project build-out conditions in order to estimate the net change in GHG emissions for construction and operation (refer to Appendix B of this EIR).

(5) Odor Impacts (Construction and Operations)

The general procedure to evaluate potential odor impacts is to conduct a screening-level analysis, and to follow that with a more detailed analysis (including dispersion modeling) as necessary. The screening-level analysis consists of reviewing the proposed project's site plan and project description to identify any new or modified odor sources. If it is determined that the proposed project would introduce a new odor source, or modify an existing odor source, then downwind sensitive receptor locations are identified and site-specific dispersion modeling is conducted to evaluate project impacts. For this project, the screening-level analysis was sufficient.

b. Project Design Features

The following design features, which serve to reduce air pollutant emissions, are proposed as part of the project.

- The project site is located within a transit oriented development[108] (TOD) area with close access to nearby light rail and bus lines.
- The proposed project will include a public plaza with landscaping and seating areas to encourage pedestrian activity.
- Up to 75 percent of all demolition and construction debris would be diverted from landfills to the extent possible.
- The proposed project would be designed and built in accordance with the criteria of the Leadership in Energy and Environmental Design (LEED) program. At a minimum, the project would be designed and constructed to achieve the "Certified" level of the LEED Rating System established by the US Green Building Council

[107] *CO_2e was developed by the Intergovernmental Panel on Climate Change (IPCC), and published in its Second Assessment Report (SAR) 1996.*

[108] *The term transit oriented development refers to urban areas characterized by commercial and mixed land use, that are designed to maximize access to public transportation.*

(USGBC) to promote sustainability. LEED standards would be incorporated into the project through the following measures that would reduce energy and water usage and thus reduce associated GHG emissions:

- Bicycle racks and shower facilities would be provided to encourage employees to bike to work.

- The proposed project would exceed baseline standards for energy efficiency by at least 14 percent by utilizing such design methods and technologies as high performance glazing on windows, a "cool" roof system, enhanced insulation, high performance glass, a high efficiency HVAC system, and increased fresh air ventilation. The project would also utilize passive solar design and provide individual lighting control for at least 50 percent of occupants. These design features would reduce the project's heating and cooling loads and lighting demand, thus reducing GHG emissions associated with energy inputs.

- The project would install water-efficient fixtures, such as low flush toilets, dual flush toilet/urinal controls and time-control sink faucets, in order to reduce the building's water demand (excluding irrigation) by at least 20 percent, and thus the GHG emissions associated with water transport and treatment.

  a. The project would further reduce water demand by installing drip irrigation systems for all landscaped areas with a master environmental control system. The project would also utilize roof storm water runoff to provide plant irrigation, low water use landscape materials, and prohibit hosing to clean the exterior plaza, courtyard, and parking garage. These landscaping measures would reduce potable water usage for irrigation by 50 percent.

c. Thresholds of Significance

The City of Pasadena has not adopted specific City-wide significance thresholds for air quality impacts. Based on the SCAQMD's regulatory role, the significance thresholds in the SCAQMD Handbook guidance document have been used in evaluating project impacts.

Based on criteria set forth in the SCAQMD Handbook and in a subsequently published chart, a project would have a significant impact with regard to regional construction emissions if the following would occur:[109]

- Regional emissions from both direct and indirect sources would exceed any of the following SCAQMD prescribed threshold levels: (1) 100 pounds per day for NO_X, (2) 75 pounds a day for VOC, (3) 150 pounds per day for PM_{10}, (4) 55 pounds per day for $PM_{2.5}$ (5) 150 pounds per day for SO_X, and (6) 550 pounds per day for CO.

In addition, the SCAQMD has published tables that to help determine whether localized (on-site) emissions would cause significant impacts. Impacts may be considered significant if maximum daily localized emissions (emissions from the site) of CO, NO_2, PM_{10} or $PM_{2.5}$, would be greater than the relevant mass emission rates provided by source receptor area (SRA), project acreage and distance to receptors in the SCAQMD's Localized Significance Threshold (LST) lookup tables.[110]

(1) Operational Emissions

Based on criteria set forth in the SCAQMD Handbook and in a subsequently published chart, a project would have a significant impact with regard to regional construction emissions if the following would occur:

- Regional operational emissions in excess of an SCAQMD-prescribed threshold level. These currently are: (1) 55 pounds per day (10 tons per year) of volatile organics, (1) 55 pounds per day of NO_X, (2) 150 pounds per day of PM_{10}, (3) 55 pounds per day of $PM_{2.5}$, (4) 150 pounds per day of SO_X, or (5) 550 pounds per day of CO.[111]

- Either of the following conditions, at an intersection or roadway within one-quarter mile of a sensitive receptor:
  - The project causes or contributes to an exceedance of the California 1-hour CO standard of 20 ppm or the 8-hour CO standard of 9.0 ppm; or
  - The incremental increase in CO concentration due to the project is equal to or greater than 1.0 ppm as a 1-hour average, or 0.45 ppm as an 8-hour average.

[109] *See SCAQMD, CEQA Air Quality Handbook, Chapter 6 (Determining the Air Quality Significance of a Project), 1993 and SCAQMD, SCAQMD Air Quality Significance Thresholds (Rev. December 2007): http://www.aqmd.gov/ceqa/handbook/signthres.pdf*

[110] *The derivation of LSTs is discussed above, under Methodology.*

[111] *See SCAQMD, CEQA Air Quality Handbook, Chapter 6 (Determining the Air Quality Significance of a Project), 1993: http://www.aqmd.gov/ceqa/handbook/signthres.doc.*

- An objectionable odor at the nearest sensitive receptor location.

In addition to the above criteria established by the city, for localized emissions (emissions from the project site), the SCAQMD has published Localized Significance Threshold (LST) lookup tables for operations. These tables give maximum daily mass emission rates of CO, NO_2, PM_{10} or $PM_{2.5}$, for projects of different sizes and in different areas that can determine whether air quality impacts from operation of a project would be considered significant.[112] The SCAQMD has also, as part of its guidance for determining the air quality significance of a project, listed additional indicators for use as screening criteria indicating the need for further analysis of operations. These include whether a project could:

- Cause an increase in the frequency or severity of existing air quality violations;
- Cause or contribute to new air quality violations;
- Delay timely attainment of air quality standards; or
- Result in population increases within the regional statistical area which would be in excess of that projected in the SCAQMD's Air Quality Management Plan (AQMP) and in other than planned locations for the project's build-out year.

In general, operation of a project would have a significant impact if it would conflict with an adopted AQMP.

(2) Toxic Air Contaminants

Based on these factors and SCAQMD Rule 1401 (New Source Review of Toxic Air Contaminants), a project may be found to have a significant TAC impact if on-site stationary sources would emit carcinogenic or toxic air contaminants in amounts that would cause a cumulative increase in maximum individual cancer risk exceeding either:

- one in one million (1×10^{-6}) if the best available control technology for toxics (T-BACT) is not used; or
- ten in one million (10×10^{-6}) if T-BACT is used.

Similarly, a project may be found to have a significant TAC impact if emissions from on-site stationary sources would cause a cumulative increase in an acute or chronic hazard index for any organ system exceeding 1.0 or an alternate level deemed to be safe.[113]

[112] *The derivation of LSTs is discussed above, under Methodology.*

[113] *See SCAQMD Risk Assessment Procedures for Rules 1401 and 212, Version 7.0 (July 2005), available from http://www.aqmd.gov/prdas/Risk%20Assessment/RiskAssessment.html.*

SCAQMD guidance for determining the air quality significance of a project lists additional indicators for use as screening criteria indicating the need for further analysis of potential TAC emissions from operations. These include whether a project:

- Will have hazardous materials associated with on-site stationary sources and could result in an accidental release of TACs or acutely hazardous materials posing a threat to public health and safety;
- Could involve burning of hazardous, medical, or municipal waste as a waste-to-energy facility; or
- Could be occupied primarily by sensitive receptors near a CO hot spot, or within a quarter mile of a facility that emits air toxics identified in SCAQMD Rule 1401.[114]

(3) Greenhouse Gas Emissions

The CEQA Guidelines, Section 15064.7, define a threshold of significance as an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant. CEQA gives wide latitude to lead agencies in determining what impacts are significant and does not prescribe thresholds of significance, analytical methodologies, or specific mitigation measures. CEQA leaves the determination of significance to the reasonable discretion of the lead agency and encourages lead agencies to develop and publish thresholds of significance to use in determining the significance of environmental effects. However, neither the SCAQMD, the air pollution control agency for all of Orange County and the urban portions of Los Angeles, Riverside and San Bernardino counties, nor the City of Pasadena, the lead agency for the proposed project, have yet established significance thresholds for GHG emissions. However, the SCAQMD released, in October 2008, a "Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold" that among other things, recommends a screening level of 3,000 MT/year of CO2e for residential and commercial projects. In other words, if a project is estimated to emit less than 3,000 MT/year of CO2e and achieves certain yet-to-be-defined energy and water use efficiencies, then that project would be considered to have a less than significant impact on climate change. The regulations required to meet the State goals under AB 32 are still under development. Furthermore, pursuant to SB 97, guidelines to be prepared by OPR for addressing greenhouse gas emissions under CEQA will not be adopted until January 1, 2010. Accordingly, at this time there is no formal guidance under CEQA and no available quantitative standards by which the approval of a real estate development project can be judged to support or hinder attainment of the State's goals relating to GHG abatement.

[114] *SCAQMD, CEQA Air Quality Handbook, Chapter 6 (Determining the Air Quality Significance of a Project), April 1993: http://www.aqmd.gov/ceqa/handbook/signthres.doc, p. 6-3.*

While the OPR has not yet adopted formal significance thresholds, OPR issued a guidance document on June 19, 2008 which suggests three components for CEQA disclosure: quantification of GHG emissions from a project's construction and operation, determination of significance of the project's impact to climate change, and if the project is found to be significant, the identification of suitable alternatives and mitigation measures.

While it is difficult to predict the specific impact of one project's incremental contribution to the global effects of GHG emissions due to a variety of factors, including the complex and long term nature of such effects and the global scale of climate change, it is possible to determine whether a project is implementing design strategies consistent with the guidance that is available. Thus, if a project implements design strategies consistent with the City of Pasadena's Green Building ordinance, goals of AB 32, and the CAT strategies, the project will not be considered to have a significant impact with respect to global climate change, either on a project-specific basis or with respect to its contribution to a cumulative impact on global climate change.

(4) Odors (Construction and Operations)

The significance of odors potentially associated with a project is evaluated based on compliance with SCAQMD rules for construction, and, for operations, based on comparing the proposed project with a list of land uses that are commonly associated with odor complaints. SCAQMD has noted that when odors are an issue, and quantitative assessment with dispersion modeling is indicated, the standard to use in assessing off-site odor exposure is based on a "dilution to threshold" (D/T) factor. Preferably, off-site odors should be below the level where they must be diluted with 5 parts of fresh air (per part odorous air) to be no longer detectable to an average adult with average odor sensitivity. An odor with a D/T factor of 10 may be acceptable, however.[115]

d. Analysis of Project Impacts

(1) Construction

(a) Regional Construction Impacts

Construction of the proposed project has the potential to create air quality impacts through the use of heavy-duty combustion-powered construction equipment and through vehicle trips generated from construction workers traveling to and from the project site. In addition,

[115] *SCAQMD, CEQA Air Quality Handbook, April 1993, p. 5-5 [changed November 1993].*

fugitive dust emissions would result from demolition and construction activities. On-site combustion emissions, most importantly of PM and NO_X, would result from the use of construction equipment such as bulldozers, loaders, and cranes. Fugitive dust would arise from the use of such equipment as well as from trucks driving on unpaved areas. Paving operations and the application of architectural coatings (mainly paints) would release volatile organic compounds (VOC). Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, especially for dust, the prevailing weather conditions. The assessment of construction air quality impacts considered each of these potential sources.

In order to provide a conservative analysis, it was assumed that all construction activities would be completed within the construction phase timeline outlined below. This assumption is conservative as it concentrates the construction duration such that activities are occurring concurrently, to the extent reasonable. This is important as the magnitude of construction emissions is directly related to the intensity of construction activities (emissions increase as the overall amount of construction activity increases).

Appendix B of this EIR details the groups of construction activities (demolition, mass grading, building foundation, and building construction/finishing) in this analysis, and the equipment that would be used during those activities.

Construction of the project would occur over a 19-month period, beginning in April 2009 and ending in October 2010. Demolition would occur over a one-month period. Mass grading, building erection, paving and coating (painting) would occur over the following 18 months.

As presented in Table IV.A-4 on page IV.A-47 construction-related daily maximum regional construction emissions would not exceed the SCAQMD daily significance thresholds for PM_{10}, $PM_{2.5}$, CO, VOC, or SO_X. However, construction NO_X emissions would exceed SCAQMD daily significance thresholds. Thus, construction emissions would result in a significant short-term regional air quality impact.

These emission forecasts reflect a specific set of conservative assumptions in which the entire project would be built out over 19 months. Because of this conservative assumption, actual emission rates could be less than those forecast. If construction is delayed or occurs over a longer time period, maximum daily emissions could be reduced because, for example by (1) the availability and use of more modern, cleaner burning, construction equipment, or (2) a less intensive build-out schedule (lower daily emissions occurring over a longer time interval).

Table IV.A-4

Project Construction Emissions (lbs/day) [a]
Unmitigated

	VOC	NO_X	CO	SO_X	PM_{10} [b]	$PM_{2.5}$
Maximum Regional Emissions (On-site + Off-site) By Stage						
Demolition	3	25	12	<1	6	2
Mass Grading	11	129	55	<1	14	7
Building Foundation	5	41	23	<1	2	2
Building Construction , Coating & Paving (16 months)	44	48	33	<1	3	3
Maximum Regional Emissions	**44**	**129**	**55**	**<1**	**14**	**7**
Regional Construction Daily Significance Threshold	75	100	550	150	150	55
Over/(Under)	(31)	29	(495)	(150)	(135)	(48)
Exceed Threshold?	No	**Yes**	No	No	No	No
Maximum Localized Emissions (On-site Only) by Stage						
Demolition	2	16	8	<1	5	2
Mass Grading	4	34	14	<1	10.8	3
Building Foundation	4	23	12	<1	1	1
Building Construction, Coating & Paving	44	46	23	<1	3	3
Maximum Localized Emissions	**44**	**46**	**23**	**<1**	**10.8**	**3**
Construction Daily Localized Significance Threshold [c]	-	69 [c]	783 [c]	-	11 [d]	4 [d]
Over/(Under) Threshold	-	(23)	(760)	-	(0.2)	(16)
Exceed Threshold?	-	No	No	-	No	No

[a] *Maximum, pounds per day. Compiled using the URBEMIS 2007 emissions inventory model. The equipment mix and use assumption for each phase is provided in Appendix B of this EIR.*

[b] *PM_{10} emissions estimates are based on compliance with SCAQMD Rule 403 requirements for fugitive dust suppression.*

[c] *SCAQMD LST for Source/Receptor Area 8 (SRA 8, West San Gabriel Valley) for receptors adjacent to or within 25 meters from the boundary of a 1-acre site are used for NO_X and CO. SCAQMD LSTs for SRA 8 for sensitive receptors located approximately 50 meters from the boundary of a 1-acre site are used for PM_{10} and $PM_{2.5}$*

[d] *PM_{10} and $PM_{2.5}$ estimates assume compliance with SCAQMD Rule 403, which requires the control of fugitive dust through the application of water twice daily, among other methods.*

Source: PCR Services Corporation, 2008.

(b) Localized Construction Impacts

The localized construction air quality analysis used the localized significance threshold (LST) look-up tables promulgated by the SCAQMD. The conservative estimates of on-site daily emissions for NO_X, CO, PM_{10} and $PM_{2.5}$ for each phase of construction were compared to

applicable LSTs based on construction site size and distance to the nearest receptor or sensitive receptor. The unmitigated maximum daily localized emissions and the localized significance thresholds are presented in Table IV.A-4. As shown, maximum localized construction emission estimates do not exceed the localized screening thresholds (LSTs) and, therefore, are not presumed to result in ambient concentrations that exceed NAAQS. Localized impacts from construction activities would not be significant and no detailed dispersion is necessary.

(c) Construction Greenhouse Gas Emissions

Construction emissions represent an episodic, Scope 3 source of GHG emissions. Emissions are associated with the operation of construction equipment and the disposal of construction waste.

To be consistent with guidance from the SCAQMD for calculating criteria pollutants from construction activities, only GHG emissions from on-site demolition and construction activities and off-site hauling and construction worker commuting are considered as project-generated. As explained by the California Air Pollution Control Officers Association (CAPCOA),[116] the information needed to characterize GHG emissions from manufacture, transport, and end-of-life of construction materials would be speculative at the CEQA analysis level (CAPCOA at 65). CEQA does not require an evaluation of speculative impacts (CEQA Guidelines § 15145). Therefore, the construction analysis does not assess such GHG emissions. Furthermore, it is reasonable and consistent with criteria pollutant calculations to consider only the GHG emissions resulting from the incremental increase in usage of on-road mobile vehicles, electricity, and natural gas upon implementation of the project as project-related. All GHG emissions are reported on an annual basis as recommended by the CCAR GRP.

Emissions of GHGs were estimated for each year of project construction. Results are presented in Table IV.A-5 on page IV.A-49. Also included in Table IV.A-5 is CARB's estimated statewide GHG emission inventory total for 2004, the latest year for which data are available, expressed as metric tons of CO_2e. As shown, the temporary increase in GHG emissions from on-road mobile sources and on site equipment associated with project construction, expressed as a fraction of the 2004 statewide GHG emission inventory total, is projected to be 0.00301 percent in 2009 and 0.00122 in 2010.

The GHG emissions estimates presented in Table IV.A-5 conservatively do not take into account the implementation of construction mitigation measures and requirements that will reduce GHG emissions. The construction mitigation measures and regulatory requirements, described below in subsection 4 include requiring construction vehicles to meet strict emission

[116] *CAPCOA, CEQA and Climate Change (January 2008).*

Table IV.A-5

Construction Greenhouse Gas Emissions [a]

Emission Source	CO_2e (Metric Tons) 2009	2010
CO_2e Emissions [a]	14,476	5,879
2004 Statewide Total [b]	479,740,000	479,740,000
Net Increase as Percentage of 2004 Statewide Total	0.00302%	0.00123%

[a] *Values derived using URBEMIS 2007 output and information from the California Climate Action Registry (CCAR) General Reporting Protocol (GRP), Version 3.0, April 2008. Construction CH_4 and N_2O values were derived from factors published in the 2006 IPCC Guidelines for National Greenhouse Inventories and included in the CO_2E calculation (See Appendix B). All CO_2e factors were derived using the California Climate Action Registry General Reporting Protocol; Version 3.0.*

[b] *The net California emissions total (gross emissions, minus forest and rangeland sinks) reported in CARB's "Draft California Greenhouse Gas Inventory" (Nov. 19, 2007): http://-www.arb.ca.gov/cc/inventory/data/tables/rpt_Inventory_IPCC_All_2007-11-19.pdf, p. 22.*

Source: PCR Services Corporation, 2008.

standards and limiting construction vehicle idling, and the diversion of all construction and demolition debris from landfills. The implementation of these construction mitigation measures would reduce energy consumption and thus GHG emissions, and thus would represent an improvement above "business as usual." Accordingly, the proposed project would be consistent with the State's strategy to reduce GHG emissions and would have a less than significant impact after implementation of mitigation measures.

(d) Toxic Air Contaminants

The greatest potential for TAC exposure from construction would be from diesel particulate emissions associated with heavy equipment operations during grading and excavation. SCAQMD methodology describes health effects from carcinogenic air toxics in terms of "individual cancer risk." Individual cancer risk is the likelihood that a person exposed to concentrations of TACs over a 70-year lifetime will contract cancer, based on the use of standard risk assessment methodology. While it is anticipated that the bulk of the site grading and excavation activities would be accomplished within a one month period, unforeseen delays could extend these activities. Nevertheless, the proposed project would not be a substantial long-term source of TAC emissions. In addition, there would be no residual diesel particulate emissions after construction or corresponding individual cancer risk. As such, project-related toxic emission impacts during construction would be less than significant.

(e) Odors

Potential sources that may emit odors during construction activities include the use of architectural coatings and solvents. SCAQMD Rule 1113 limits the amount of volatile organic compounds from architectural coatings and solvents. Via mandatory compliance with this SCAQMD rule, no construction activities or materials are proposed which would create objectionable odors. Therefore, no odor impact would occur and no odor mitigation measures would be required.

(2) Operational Impacts

(a) Regional Operational Impacts

Regional air pollutant emissions associated with proposed project operations would come from the generation and consumption of electricity and natural gas, and by the operation of on-road vehicles. The SCAQMD classifies pollutant emissions associated with energy demand (i.e., electricity generation and natural gas consumption) as regional stationary source emissions. Since it is not possible to identify where the electricity consumed by the project would be generated, the associated emissions are conservatively considered to occur within the Basin. Criteria pollutant emissions associated with the production and consumption of energy were calculated using emission factors from the SCAQMD's *CEQA Air Quality Handbook*.[117]

Mobile-source emissions were calculated using the URBEMIS 2007 emissions inventory model, which multiplies an estimate of the change in daily VMT (vehicle miles traveled) by applicable EMFAC2007[118] emissions factors. Appendix B of this EIR includes the URBEMIS 2007 model output and worksheets for calculating regional operational daily emissions. As shown in Table IV.A-6 on page IV.A-51, the increase in regional emissions resulting from operation of the project is not expected to exceed the SCAQMD criteria pollutant thresholds. Therefore, regional operational impacts would not be significant.

(b) Local Operational Impacts

Operation of the proposed project would not introduce any major new on-site sources of air pollution. Emissions estimates for criteria air pollutants from on-site sources, such as natural gas consumption, consumer product use and landscaping activities, were well below significance thresholds. Since for the operation of projects that do not include major on-site sources, carbon

[117] *SCAQMD, CEQA Air Quality Handbook (April 1993; portions "Changed November 1993"), Appendix 9.*

[118] *See http://www.arb.ca.gov/msei/onroad/latest_version.htm.*

Table IV.A-6

Maximum Project-Related Operational Emissions (lbs/day)[a]

Emission Source	VOC	NO_X	CO	SOx	PM_{10}	$PM_{2.5}$
Existing Use Emissions						
Mobile	7	11	80	<1	14	3
Area	0	0	3	<1	0	0
Stationary	0	1	0	<1	0	0
Total Existing	**7**	**12**	**83**	**1**	**14**	**3**
Proposed Use Emissions						
Mobile	10	16	117	<1	20	4
Area	1	1	2	<1	<1	<1
Stationary	<1	5	1	<1	<1	<1
Total With Project	**11**	**21**	**120**	**1**	**20**	**4**
Net Project Emissions						
Net Mobile	3	5	37	<1	6	1
Net Area	<1	<1	<1	<1	<1	<1
Net Stationary	<1	3	<1	<1	<1	<1
Total Net [b]	**4**	**9**	**37**	<1	**6**	**1**
SCAQMD Significance Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Difference	**(51)**	**(46)**	**(513)**	**(150)**	**(144)**	**(54)**
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

[a] *Mobile and area emissions were calculated using the URBEMIS 2007 emissions model. Area sources include natural gas consumption, landscape fuel consumption, and miscellaneous sources (e.g., among other things, commercial solvent usage, architectural coatings). Emissions due to project-related electricity generation were calculated based on guidance provided in the SCAQMD CEQA Air Quality Handbook. Worksheets and modeling output files are provided in Appendix B*

[b] *Totals may not add up exactly due to rounding.*

Source: PCR Services Corporation, 2008.

monoxide generated by project-related traffic is generally the localized pollutant of concern, the potential for CO hot spots was analyzed.

The SCAQMD recommends an evaluation of potential localized CO impacts when vehicle to capacity (V/C) ratios are increased by two percent or more at intersections with a level of service (LOS) of C or worse. As indicated in Section IV.D, Transportation and Circulation, of this EIR, traffic congestion would incrementally increase under future traffic scenarios, when compared to existing traffic levels. Of the nine intersections analyzed, none would meet these criteria. However, the intersection closest to the project and the intersection with the highest V/C ratio were both analyzed for 2010 build-out:

- Fair Oaks Avenue and California Boulevard
- Pasadena Avenue and California Boulevard

CO concentration levels at the above-mentioned intersections were forecast using the CALINE4 dispersion model developed by the California Department of Transportation, using peak-hour traffic volumes and conservative meteorological assumptions. Conservative meteorological conditions include low wind speed, stable atmospheric conditions, and the wind angle producing the highest CO concentrations for each case. CO concentrations were modeled under the future (2010) No Project and With Project conditions. As shown in Table IV.A-7 on page IV.A-53, project-generated traffic volumes are forecasted to have a negligible effect on the projected 1-hour and 8-hour CO concentrations at the intersections studied. Since a significant impact would not occur at the intersections operating at the highest V/C ratio, no significant impacts would occur at any other analyzed roadway intersections as a result of project-generated traffic volumes. Thus, the proposed project would not cause any new or exacerbate any existing CO hotspots, and, as a result, impacts related to localized mobile-source CO emissions would be less than significant.

(c) Toxic Air Contaminants

This section evaluates potential impacts to sensitive populations that may result from TAC emissions associated with long-term operation of the project. The primary sources of potential air toxics associated with proposed project operations include DPM emitters such as delivery trucks (e.g., truck traffic on local streets and on-site truck idling) and emergency backup generators. The SCAQMD recommends conducting health risk assessments for substantial sources of DPM (e.g., truck stops and warehouse distribution facilities) and has provided guidance for analyzing mobile source diesel emissions.[119] In 2004, CARB adopted an Airborne Toxic Control Measure (ATCM) to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel PM and other TACs and air pollutants. The measure applies to diesel-fueled commercial vehicles, licensed to operate on highways (regardless of where they are registered), having gross vehicle weight ratings greater than 10,000 pounds. This ATCM allows diesel-fueled commercial vehicles, in most situations, to idle for no more than 5 minutes at a time. Potential localized air toxic impacts from on-site sources of diesel particulate emissions would be minimal since only a limited number of heavy-duty trucks would access the project site, and the trucks that do visit the site would not idle on the project site for extended periods of time. Based on the limited activity of the toxic air contaminant sources that would operate with

[119] *SCAQMD, Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions, December 2002.*

Table IV.A-7

Local Area Carbon Monoxide Dispersion Analysis 2010

Intersection	Peak Period [a]	Maximum 1-Hour 2010 Base Concentration [b] (ppm)	Maximum 1-Hour 2010 w/ Project Concentration [c] (ppm)	Significant 1-Hour Impact [d]	Maximum 8-Hour 2010 Base Concentration [e] (ppm)	Maximum 8-Hour 2010 w/ Project Concentration [f] (ppm)	Significant 8-Hour Impact [d]
Fair Oaks Avenue and	A.M.	8.0	8.1	No	5.64	5.64	No
California Boulevard	P.M.	8.2	8.2	No	5.71	5.78	No
Pasadena Avenue and	A.M.	8.5	8.3	No	5.78	5.78	No
California Boulevard	P.M.	8.8	8.6	No	5.85	5.85	No

ppm = parts per million.

[a] *Peak hour traffic volumes are based on the Traffic Impact Study prepared by Fehr and Peers, 2008.*
[b] *SCAQMD 2010 1-hour ambient background concentration (6.5 ppm) + 2010 Base traffic CO 1-hour contribution.*
[c] *SCAQMD 2010 1-hour ambient background concentration (6.5 ppm) + 2010 w/ Project traffic CO 1-hour contribution.*
[d] *The most restrictive standard for 1-hour CO concentrations is 20 ppm and for 8-hour concentrations is 9.0 ppm.*
[e] *SCAQMD 2010 8-hour ambient background concentration (4.8 ppm) + 2010 Base traffic CO 8-hour contribution.*
[f] *SCAQMD 2010 8-hour ambient background concentration (4.8 ppm) + 2010 w/ Project traffic CO 8-hour contribution.*

Source: PCR Services Corporation, 2008; emission factor and dispersion modeling output sheets are provided in Appendix B.

implementation of the proposed project, a detailed health risk assessment is not warranted and potential air toxic impacts to off-site populations would be less than significant.

There are many uncertainties involved in the quantification of GHGs from any individual project. For example, newer construction materials and practices, and newer appliances, tend to be more efficient and to result in lower levels of air pollutant emissions, including GHG emissions than those of years ago, but the net effect is difficult to quantify. The estimate of the net increase in emissions resulting from implementation of the proposed project presented above may be an over- or under-estimation. Thus, the net increase in emissions resulting from implementation of the proposed project presented above is only an estimate.

Actual project emissions will be lower than the estimates presented for the operational scenarios above, as the estimates conservatively do not account for the emissions reduction requirements associated with AB1493, SB 1368, AB 32, Executive Order S-3-5, and regulations that have yet to be created. According to the CEC, the reductions in emissions anticipated under AB1493 (if reinstated) will be equivalent to reducing gasoline consumption to a rate of 31 percent of 1990 gasoline consumption (and associated GHG emissions) by 2020. Similarly, emission standards on the State's power plants under SB 1368 have not been taken into account

in calculating the emissions shown in Table IV.A-8 on page IV.A-55, and will likely result in actual emissions below the levels presented.

It is difficult to estimate what portion of the direct and indirect GHG emissions presented above represent new GHG emissions versus existing displaced emissions. Displaced emissions are those that prior to the project, were created and emitted elsewhere; whereas new GHG emissions are those that do not and would not exist without implementation of the project, creating an incremental increase in emissions. This project would provide office space to accommodate the projected increase in demand for office space within the region. Those who would occupy the new offices already generate GHG emissions through their current activities, and any net increase in such emissions with their relocation to the site would depend on the nature of their current activities, such as the distance of their commute, the energy demand associated with their current office buildings, and other factors. Accordingly, assuming all project-related operational emissions are new is also conservative.

The baseline for AB 32 is considered to be "business as usual." For the purposes of this project "business as usual" would be development according to the energy efficiency standards established in Title 24, California's energy efficiency standards for residential and non-residential buildings. However, as discussed above, the proposed project would be constructed to exceed the reduction goals of Title 24 before 2020 by implementing energy and water conservation measures within a transit-oriented development. In addition, the proposed project would be constructed to achieve a certification from the USGBC's LEED program. The LEED features that would be incorporated in the project would include transportation measures to reduce vehicle trips, building efficiency measures to reduce energy consumption, and water saving measures.

The effectiveness of each of the project features in reducing GHG emissions varies. A heat island effect mitigating roof can either be painted a color that reflects much of the sun's heat, such as white. Reducing water consumption results in a reduction of GHG emissions from energy generation to operate water pumps and wastewater treatment facilities, which have been identified as major sources of GHGs statewide. Overall, these project features would reduce both energy demand and VMT associated with the proposed project, resulting in a reduction of GHG emissions. In addition, it is important to note that the project would replace older commercial buildings with new state of the art energy efficient buildings, further reducing GHG emissions when compared with baseline conditions.

Mobile source GHG emissions would also be reduced due to the proposed project being located within a quarter mile of the Metro Gold Line Fillmore Station and within a Transit Oriented Development (TOD) area that is subject to the City's TOD standards. This proximity to transit for employees and visitors to the site would reduce trips and vehicle miles traveled, thereby reducing mobile GHG emissions.

Table IV.A-8

Operational Greenhouse Gas Emissions (2010)

Emission Source	CO_2e (Metric Tons) [a]
Existing	
On Road Mobile Sources [b]	1,626
Electricity [c]	157
Natural gas [d]	14
Total	**1,797**
Project	
On Road Mobile Sources [b]	2,345
Electricity [c]	503
Natural gas [d]	57
Total	**2,906**
Total Net Increase	**1,109**
2004 Statewide Total [e]	*479,740,000*
Net Increase as Percentage of 2004 Statewide Total	**0.00023%**

[a] *Except as noted, all CO_2e emission factors were derived from the California Climate Action Registry (CCAR) General Reporting Protocol (GRP), Version 3.0, April 2008.*

[b] *Mobile source values were derived using EMFAC2007 (http://www.arb.ca.gov/-msei/onroad/latest_version.htm) in addition to the CCAR GRP.*

[c] *Electricity Usage Rates from Table A9-11-A, CEQA Air Quality Handbook, SCAQMD, 1993.*

[d] *Natural Gas Usage Rates from Table A9-12-A, CEQA Air Quality Handbook, SCAQMD, 1993.*

[e] *The net California emissions total (gross emissions, minus forest and rangeland sinks) reported in CARB's "Draft California Greenhouse Gas Inventory" (Last Updated November 19, 2007): http://-www.arb.ca.gov/¬cc/inventory/data/tables/-rpt_Inventory_IPCC_All_2007-11-19.pdf, p. 22.*

Source: PCR Services Corporation, 2008.

As indicated in the analysis above, the estimate of project GHG emissions is conservative, with the theoretical net increase in GHG emissions from concurrent construction and operations from the project by 2010 estimated to represent only 0.00023 percent of 2004 State-wide total emissions. Moreover, a large percentage of the operational GHG emissions conservatively associated with the proposed project would not represent new emissions because the future occupants of the project already generate emissions through their current activities, and further, the emissions estimate does not reflect improvements in technology and other reductions in GHG emissions that are likely to occur pursuant to State regulations, such as AB 1493, SB 1368, AB32, and Executive Order S-3-5, as well as future federal and/or State regulations. In addition, as discussed above, the calculation of GHG emissions does not take into account implementation of planned lower GHG emission standards from passenger vehicles (if reinstated) and power plants within the State of California, as these rules are yet to be finalized and promulgated. Nonetheless, reducing GHG emissions is an important priority and reasonable reduction efforts should be taken. Accordingly, the project has incorporated design features to

reduce the project's potential impact with respect to GHG emissions that are consistent with the goals of AB32 and the CAT strategies discussed in this report.

Due to the complex physical, chemical and atmospheric mechanisms involved in global climate change, there is no basis for concluding that the project's very small theoretical emissions increase could actually cause a measurable increase in global GHG emissions necessary to force global climate change. The GHG emissions of the project alone cannot cause a direct physical change in the environment. It is global emissions in their aggregate that contribute to climate change, not any one source of emissions alone. Therefore, due to the incremental amount of GHG emissions estimated for this project, the fact that estimated operational emissions are likely overstated (due to the fact that it is speculative to account for reductions through future regulations or to offset precisely for existing emissions by future occupants of the project), the lack of any evidence for concluding that the project's GHG emissions could cause any measurable increase in global GHG emissions necessary to force global climate change, and the fact that the project incorporates design features to reduce potential GHG emissions that are consistent with the City's ordinance, goals of AB32 and the CAT strategies, the project is not considered to have a significant impact with respect to global climate change on a project-specific basis. Moreover, there is no non-speculative method for assessing how the project's very small theoretical GHG emissions increase could cause a significant project-specific effect on global climate change.

(e) Odors

According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project does not include any uses identified by the SCAQMD as being associated with odors. Thus, potential odor impacts associated with project generated odors would be less than significant. However, there are several sources (e.g., fast food restaurant, auto body shop, cloth diaper cleaning service) in close proximity to the site that could be associated with odor complaints. The fast food restaurant (Burger King) is directly south of the project site. A review of the SCAQMD Facility Information Search (FIND) database did not identify any odor complaints associated with these facilities. In addition, these facilities are required to comply with SCAQMD rules and regulations, which would further reduce the potential for odiferous emissions. As such, odor impacts associated with off-site sources for on-site receptors would be considered less than significant.

(3) SCAQMD *CEQA Air Quality Handbook* Policy Analysis

In accordance with the procedures established in the SCAQMD *CEQA Air Quality Handbook*, the following criteria ("key indicators") should be addressed to determine the proposed project's consistency with the AQMP: [120]

1. Would the project:

   - Result in an increase in the frequency or severity of existing air quality violations, or cause or contribute to new air quality violations; or

   - Delay timely attainment of air quality standards or any interim emission reductions specified in the AQMP?

2. Would the project exceed time-specific quantitative assumptions utilized in preparing the AQMP?

1. Air quality standards. With respect to the first criterion, SCAQMD methodologies require that an air quality analysis for a project include forecasts of emissions in a regional context during construction and project operation. Those forecasts are provided above. Since the first criterion references pollutant concentrations rather than total regional emissions, the forecasts and associated analyses that relate directly to pollutant concentrations are used here as the basis for evaluating project consistency. These are the localized forecasts and analyses. Project emission forecasts were analyzed in relation to localized concentrations of PM_{10}, $PM_{2.5}$, CO, and NO_2. SO_2 and lead (Pb) emissions would be negligible during construction and long-term operations, and therefore would not have to potential to cause or exacerbate a violation of their NAAQS. Because VOC is not a criteria pollutant, there is no ambient standard or localized threshold for VOC. Due to VOC's role in ozone formation, it is classified as a precursor pollutant and a regional emissions threshold has been established, however.

Construction. Particulate matter is often the primary pollutant of concern during construction activities, and therefore the project's PM_{10} and $PM_{2.5}$ emissions during construction were analyzed to ascertain potential effects on localized concentrations. Results of the analyses indicate that the increases in PM_{10} and $PM_{2.5}$ emissions during construction would not exceed the SCAQMD-recommended significance thresholds for sensitive receptors near the project site. The project's maximum potential daily NO_X and CO emissions during construction were also analyzed to ascertain potential effects on localized concentrations and to determine if there is a potential for such emissions to cause or exacerbate a violation of an applicable ambient air

[120] *South Coast Air Quality Management District, CEQA Air Quality Handbook (1993), pp. 12-2 – 12-3.*

quality standard. As shown in Table IV.A-1, the maximum estimate of localized emissions for these criteria pollutants would remain below their respective SCAQMD LST Significance Thresholds. As such, localized impacts (i.e., potential to violate NAAQS or California standards at receptor locations) that may result from these construction-period air pollutant emissions would be less than significant.[121] While NO_X emissions during construction would exceed SCAQMD regional significance thresholds, these impacts would be short-term in nature, it is highly unlikely that they would cause or contribute to new air quality violations, and they would not have a long-term impact on the frequency or severity of air quality standard violations or the region's ability to meet state and national air quality standards. Therefore, the proposed project is not considered to be inconsistent with the basic goals and policies of the AQMP in this regard.

Operations. Because this project would not introduce any substantial stationary sources of emissions, CO from motor vehicle operations is the preferred benchmark pollutant for assessing local area air quality impacts after construction. Based on SCAQMD methodologies, one measure of local area air quality impacts that can indicate whether the proposed project would cause or affect a violation of an air quality standard would be the estimated CO concentrations at selected receptor locations located in close proximity to the project site. As indicated above, CO emissions were analyzed using the CALINE-4 model and no violations of the state and national carbon monoxide standards are projected to occur. As with construction, operation of the project would result in less than significant impacts with regard to CO, PM_{10}, $PM_{2.5}$, and SO_2 emissions (or those of other NAAQS pollutants) and associated local concentrations. As such, the project would meet the first AQMP consistency criterion.

2. Assumptions in AQMP. With respect to the second criterion for determining consistency with the AQMP, it is important to recognize that air quality planning within the Basin focuses on the attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing and growth trends. Thus, the SCAQMD's second criterion for determining project consistency focuses on whether or not the proposed project would exceed the assumptions utilized in preparing the forecasts presented in the AQMP. Determining whether or not a project exceeds the assumptions reflected in the AQMP involves three issues: (1) consistency with the population, housing, and employment growth projections; (2) project mitigation measures; and (3) appropriate incorporation of AQMP land use planning strategies. The following discussion provides an analysis of each of these three issues.

[121] *Please note that NO_x is used when describing emissions of nitrogen oxides, but that the ambient air quality standard is for NO_2 levels. The same applies for SO_x (emissions) versus SO_2 (ambient standard concentration). After being emitted, NO_x and SO_x are converted to NO_2 and SO_2 in ambient air.*

- Is the project consistent with the population, housing, and employment growth projections upon which AQMP forecasted emission levels are based?

A project is consistent with the AQMP in part if it is consistent with the population, housing, and employment assumptions that were used in the development of the AQMP. In the case of the 2007 AQMP, three sources of data form the basis for the projections of air pollutant emissions: the City of Pasadena General Plan, SCAG's Growth Management Chapter of the *Regional Comprehensive Plan and Guide* (RCPG), and SCAG's *2004 Regional Transportation Plan* (RTP). On May 8, 2008, SCAG adopted the 2008 Regional Transportation Plan which is not incorporated into the 2007 AQMP. It is expected that the next update to the AQMP will be based on the 2008 RTP. The RTP also provides socioeconomic forecast projections of regional population growth. The project is consistent with the types, intensity and patterns of land use envisioned for the site vicinity in the RCPG. The population, housing, and employment forecasts which are adopted by SCAG's Regional Council are based on the local plans and policies applicable to the specific area; these are used by SCAG in all phases of implementation and review. For purposes of using the most current available data, the 2008 RTP data will be used in this analysis.

The project is projected to result in a net increase of approximately 284 full-time equivalent jobs at the project site, or approximately 0.24 percent of the 119,968 total employment that SCAG's 2008 RTP forecast for the City of Pasadena in the year 2010.[122] Such relatively small changes in population and employment would not disrupt the population and employment forecasts for the City of Pasadena, or the Southern California region, adopted by SCAG. Thus, the levels of population and employment growth attributable to the project would be consistent with the population and employment forecasts for the subregion as adopted by SCAG. Because the SCAQMD has incorporated these same projections into the AQMP, it may be concluded that the proposed project would be consistent with the population and employment projections in the AQMP.

- Does the project implement all required air quality mitigation measures?

Mitigation measures are prescribed to reduce air quality impacts. The proposed project would incorporate a number of mitigation measures, including several recommended by the SCAQMD, as summarized in the next section. The AQMD was developed with the availability of such mitigation measures in mind, and in this regard the proposed project is consistent with the AQMP.

[122] *SCAG, "Destination 2030: Mapping Southern California's Transportation Future." 2004 Regional Transportation Plan, Adopted April 2004(http://www.scag.ca.gov/rtp2004/2004/Final/FINAL_2004_RTP.pdf), p. 40.*

- To what extent is project development consistent with the land use policies set forth in the AQMP?

The proposed project would serve to implement a number of SCAG's land use policies reflected in the AQMP. With regard to land use developments, such as the proposed project, air quality policies focus on the reduction of vehicle trips and vehicle miles traveled. The proposed project, by virtue of its location and design, exhibits many attributes that have a positive direct and indirect benefit with regard to the reduction of vehicle trips and vehicles miles traveled. The site is located within a transit oriented development (TOD) area. As such, the proposed project is required to meet the TOD standards in Section 17.50.340 of the Municipal Code, which encourage the use of transit and walking through building design standards and reduced parking requirements, as discussed above. The project site is located in a transit rich area, with close access to the Gold Line and Bus Lines 20, 51, and 70. To encourage the use of pedestrian activity and thereby enhance transit usage, the project is proposing a public plaza, as described in Section II, Project Description, which would feature landscaping and seating amenities for pedestrians. In addition, bicycle racks would be provided at the entry level to the new office building and landscaping would be provided throughout the site to encourage pedestrian activity. With easy accessibility to local and regional transit, the project would implement important air quality policies that contribute to reducing vehicle trips and vehicle miles traveled. As the project would implements the objective of reducing vehicle miles traveled and related air emissions, the proposed project would be consistent with AQMP land use policy.

The determination of AQMP consistency is primarily concerned with the long-term influence of the project on air quality in the Basin. While project construction would result in some small but significant short-term regional impacts (note that the project would comply with SCAQMD Rule 403 and would be consistent with the goals and policies of the AQMP for control of fugitive dust), project development and operation would not have a long-term adverse impact on the region's ability to meet state and national air quality standards. The project's long-term influence would be consistent with the goals and policies of the AQMP and the proposed project is therefore considered consistent with the AQMP.

4. MITIGATION MEASURES

The following mitigation measures are (1) intended to implement requirements of SCAQMD Rule 403 (Fugitive Dust) and (2) set forth a program of air pollution control strategies designed to reduce the proposed project's air quality impacts to the extent feasible.

a. Construction

Mitigation Measure A-1: Contractors shall implement a fugitive dust control program pursuant to the provisions of SCAQMD Rule 403.[123]

Mitigation Measure A-2: All construction equipment shall be properly tuned and maintained in accordance with manufacturer's specifications.

Mitigation Measure A-3: Contractors shall maintain and operate construction equipment so as to minimize exhaust emissions.

Mitigation Measure A-4: Electricity from power poles rather than temporary diesel- or gasoline-powered generators shall be used to the extent feasible.

Mitigation Measure A-5: All construction vehicles shall be prohibited from idling in excess of ten minutes, both on- and off-site.

5. CUMULATIVE IMPACTS

Air quality agencies including the SCAQMD assess cumulative impacts on air quality primarily in relation to state and national ambient air quality standards. Because the Basin is currently out of attainment for ozone, PM_{10} and $PM_{2.5}$, projects in the Basin may contribute to existing and projected exceedances of such standards. As discussed earlier, the SCAQMD has developed a comprehensive plan, the 2007 AQMP, which addresses the region's cumulative air quality condition and serves as a road map for bringing the Basin into attainment. The AQMP and state guidelines together inform the assessment under CEQA of cumulative impacts. A significant cumulative impact may occur if a project and related projects would add a cumulatively considerable contribution of a federal or state non-attainment pollutant.

When a lead agency is deciding if a cumulative effect requires preparation of an EIR, the CEQA Guidelines promulgated by the state Resources Agency note that "the lead agency shall consider whether the cumulative impact is significant and whether the effects of the project are cumulatively considerable. 'Cumulatively considerable' means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."[124] In particular, the

[123] *SCAQMD Rule 403 requirements are detailed in Appendix B.*

[124] *Title 14, Calif. Code of Regulations, Chapter 3 (CEQA Guidelines) § 15064(h)(1).*

Resources Agency provides the following guidance for determining the cumulatively considerable nature of a project's environmental impacts:

> *"A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem (e.g., water quality control plan, air quality plan, integrated waste management plan) within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret or make specific the law enforced or administered by the public agency. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding that the project complies with the specified plan or mitigation program addressing the cumulative problem, an EIR must be prepared for the project."*[125]

With respect to that guidance, for a project in the Basin, a lead agency may base its determination of whether the project's incremental contribution to a cumulative air quality impact is cumulatively considerable largely on compliance with any applicable requirements imposed by the SCAQMD's AQMP.

a. Construction

(1) Ambient Air Quality Standards

Regarding project construction and cumulative Basin-wide conditions, the SCAQMD has developed strategies to reduce emissions of criteria pollutants and their precursors. As outlined in the AQMP, these strategies include compliance with SCAQMD Rule 403 requirements and all adopted AQMP emissions control measures, as well as implementation of feasible mitigation measures. With respect to all of those strategies, the proposed project would comply with the AQMP. Per SCAQMD rules and the CEQA requirement that significant impacts be mitigated to the extent feasible, such compliance would also be imposed on construction projects Basin-wide, including all identified related projects.[126] The consistent Basin-wide application of regulatory requirements would tend to minimize cumulative impacts associated with construction but it is likely that certain projects would contribute to short-term exceedances of certain emission

[125] *Title 14, Calif. Code of Regulations, Chapter 3 (CEQA Guidelines) § 15064(h)(3).*

[126] *The traffic study (see Appendix E) for the proposed Project identified ten projects in the area that could have cumulative impacts together with the proposed project. Of the ten related projects, some have not yet been built, and some are currently under construction. Since the applicant for the proposed project has no control over the timing or sequencing of those projects' construction, any quantitative analysis of construction emissions that assumes multiple, concurrent construction projects would involve a large amount of speculation.*

standards. In light of the significant construction impacts of related projects, the NO_X emissions from the proposed project are considered cumulatively considerable, even after implementation of mitigation measures. As such, it is concluded that cumulative impacts on air quality during the project's construction would be significant and unavoidable.

(2) Toxic Air Contaminants

There is no unique standard available for analyzing the potential cumulative TAC impact from multiple concurrent construction projects. The AQMD has suggested that proximity be considered when analyzing cumulative impacts. The schedules of the related projects are independent and uncertain; therefore, the degree of overlap is unknown and speculative. For example, of the ten related projects listed in Table 4, of the Traffic Study, the construction of the closest related project, located at 70 W. California Boulevard, is in its final stages and likely to be completed before the start of construction of the proposed project. The other nine related projects are well over 500 feet or more away from the proposed project site. The impact from construction related TACs from this project is individually less than significant. Even in a worst-case scenario, wherein construction of the related projects and the proposed project occur concurrently, there is sufficient distance between the sites and the surrounding sensitive land uses, such that the projects contribution would not be considerable and the cumulative impact during construction would be less than significant.

(3) Odors

Odors emitted during construction activities at each related project would in all likelihood mainly be related to sources such as the use of architectural coatings and solvents. SCAQMD Rule 1113 limits the amount of volatile organic compounds from architectural coatings and solvents. Via mandatory compliance with SCAQMD rules, it is anticipated that construction activities or materials used in the construction of the related projects, as well as of the proposed project, would not create objectionable odors. Thus, odor impacts from construction of the related projects are anticipated to be less than significant individually, as well as cumulatively in conjunction with the proposed Project.

b. Operation

Operation of the proposed Project would not conflict with or obstruct implementation of the AQMP. A project may be inconsistent with an applicable air quality plan if it would result in population and/or employment growth that exceeds growth estimates in the plan, but as discussed above, in the analysis of project impacts under "SCAQMD *CEQA Air Quality Handbook* Policy Analysis," the project would not result in population and/or employment growth that exceeds growth estimates in the AQMP.

Specifically, the proposed Project is projected to result in a net increase of approximately 284 full-time equivalent jobs at the project site, or approximately 0.24 percent of the 119,968 total employment that SCAG's 2004 RTP forecast for the City of Pasadena in the year 2010.[127] As the proposed project is consistent with applicable land use plans, this relatively small change in employment is anticipated within and would not exceed the employment forecasts for the City of Pasadena, or for the Southern California region as adopted by SCAG. Therefore, the proposed Project would also be consistent with the projections in the 2007 AQMP. In addition, the project would comply with all rules and regulations implemented by CARB and the SCAQMD. Accordingly, the project is consistent with the AQMP. Given the project's consistency with the AQMP, the applicable air quality plan for the region, the project's incremental contribution to cumulative air quality effects are not cumulatively considerable and would represent a less than significant cumulative impact.

(1) Ambient Air Quality Standards

The SCAQMD no longer recommends relying solely upon consistency with the AQMP for assessing cumulative air quality impacts, however. Instead, SCAQMD's approach to cumulative air quality impacts for pollutants with ambient air quality standards requires also determining if operation of the project would result in a significant impact, at the individual project level, on regional or local air quality, based on SCAQMD significance thresholds. But if project operation would not cause emissions in excess of those thresholds, the SCAQMD approach only requires the lead agency to consider the additive effects of related projects if the project is part of an ongoing regulatory program or is contemplated in a Program EIR, and the related projects are located within approximately one mile of the project site.[128] Because this project is not part of an ongoing regulatory program or contemplated in a Program EIR, the SCAQMD approach does not require that the additive effects of related projects be evaluated.

Therefore, in lieu of analyzing the additive effects of related projects, thresholds for operational emissions were considered in the context of cumulative impacts analysis, as SCAQMD recommends for all projects under CEQA. As noted above in subsection 3.c(2) (Operational Impacts), the proposed Project would not cause long-term emissions in excess of the applicable regional and local SCAQMD thresholds, and in keeping with SCAQMD guidance, it would not have a cumulatively significant impact on air quality during long-term operation.

[127] *SCAG, "Destination 2030: Mapping Southern California's Transportation Future." 2004 Regional Transportation Plan, Adopted April 2004(http://www.scag.ca.gov/rtp2004/2004/Final/FINAL_2004_RTP.pdf), p. 40.*

[128] *In this case, the project is not part of an ongoing regulatory program, and is not addressed in a Program EIR.*

(2) Toxic Air Contaminants

With respect to emissions of TACs, the proposed project would not represent a substantial source. Substantial sources of TAC emissions are typically large-scale industrial, manufacturing, and transportation hub facilities. Although the proposed Project and each of the related projects would likely generate some TAC emissions related to activities like the use of delivery vehicles, consumer products, cooking, and landscape maintenance, such emissions would be minimal compared to emissions from substantial TAC sources. Based on recommended screening-level siting distances for TAC sources, as set forth in the CARB Handbook,[129] the proposed project would not contribute to a cumulative impact requiring further evaluation.

In California's toxic air contaminants program (first established by AB 1807, Tanner; Stats. 1983, ch. 1047), CARB identifies substances as TACs and adopts airborne toxic control measures (ATCMs) to protect public health. In turn, air district rules for new or modified sources must require emission control consistent with the ATCMs. Thus, the SCAQMD has adopted rules that specifically address TAC emissions.[130] These SCAQMD rules have resulted in and will continue to result in substantial district-wide TAC emission reductions, reducing the cumulative impact of TACs in the district and the likelihood that a group of related projects in an area will have a cumulatively significant impact.

The proposed Project would not result in any sources of TAC that have been identified by the land use guidelines discussed above. As such, cumulative impacts from TAC emissions during long-term operations would not be cumulatively considerable and would be less than significant.

(3) Odors

With respect to potential odor impacts, neither the proposed Project nor any of the related projects have a high potential to generate substantial odor impacts.[131] Furthermore, any related project that may have a potential to generate objectionable odors would be required by SCAQMD Rule 402 (Nuisance) to implement Best Available Control Technology to limit potential objectionable odor impacts to a less than significant level. Thus, potential odor impacts

[129] *California Air Resources Board, "Air Quality and Land Use Handbook: A Community Health Perspective" (April 2005): http://www.arb.ca.gov/ch/handbook.pdf, p. 4.*

[130] *See SCAQMD Regulation XIV at http://aqmd.gov/rules/download.html.*

[131] *According to the SCAQMD CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding.*

from the proposed project and related projects are anticipated to be less than significant individually and cumulatively.

c. Global Climate Change

The project is estimated to represent a net increase of 0.00023 percent of 2004 State-wide total emissions. A sizeable percentage of the operational GHG emissions conservatively associated with the proposed project likely should not be considered new emissions attributable to the project, because the future occupants and employees of the project already generate emissions through their current activities. Further, the emissions estimate does not reflect improvements in technology and other reductions in GHG emissions that are likely to occur pursuant to State regulations, such as AB 1493, SB 1368, AB 32, and Executive Order S-3-5, as well as future federal and/or State regulations. Additionally, the project is committed to LEED certification and has incorporated design features and measures to reduce the project's VMT and energy demand, which would reduce its potential GHG emissions consistent with the goals of AB 32 and the CAT strategies discussed in this EIR and summarized in Table IV.A-9 on page IV.A-67.

AB1493 mandates that CARB create GHG emission reduction rules for cars and light trucks. According to the CEC, if AB1493 is reinstated, the reductions in emissions will be equivalent to reducing gasoline consumption to a rate of 31 percent of 1990 gasoline consumption (and associated GHG emissions) by 2020. When the rules are fully implemented and older cars are replaced with AB1493 compliant vehicles there will be further reduction in GHGs from trips to and from the proposed project. New power plant emission standards are proposed and anticipated to go into effect as a result of AB 32. These anticipated emission reductions are not taken into account for this project, and future CO_2e emission factors would be reduced when these measures go into effect.

In June 2005, Governor Schwarzenegger signed Executive Order S-3-05, which established GHG emissions targets for the state as well as a process to ensure the targets are met. As a result of this executive order, the California Climate Action Team (CAT), led by the Secretary of the California EPA, was formed. The CAT published its report in March 2006, in which it laid out several recommendations and strategies for reducing GHG emissions and reaching the targets established in the executive order.[132] Table IV.A-9 illustrates the project's consistency with those recommendations and strategies presented in the CAT report. The project features listed in Table IV.A-9 apply directly to CAT strategies for reducing GHG emissions.

[132] *California Climate Action Team. Climate Action Team Report to Governor Schwarzenegger and the Legislature, 2006.*

Table IV.A-9

Consistency with Applicable California Climate Action Team Strategies

Strategies for Reducing GHG Emissions	Project Consistency
Vehicle Climate Change Standards and Other New Light Duty Vehicle Technology Improvements Reduce GHG emissions from vehicles by conforming to AB1493. AB 1493 mandates that California develop and adopt regulations to accomplish the maximum feasible and cost-effective reduction of GHG emissions from passenger vehicles and light duty trucks. CARB adopted these regulations in 2004; they pertain to passenger vehicles and light duty trucks and phase in during model years 2009 through 2016.	Vehicles travelling to and from the project site would be in compliance with the CARB GHG emissions regulations that pertain to their model years.
Diesel Anti-Idling Reduce diesel-fueled commercial motor vehicle idling.	All construction vehicles would be prohibited from idling in excess of five minutes, both on- and off-site.
Alternative Fuels: Biodiesel Blends and Ethanol Increase the use of alternative fuels that are less GHG-intensive.	The fuel used by vehicles travelling to and from the project would be subject to regulations pertaining to the use of biodiesel to displace California diesel fuel, and to the increase in the ethanol percentage used in gasoline. In addition, project tenants may choose to purchase flex-fuel vehicles.
Achieve 50 percent Statewide Recycling Goal Achieve California's 50 percent waste diversion mandate (Integrated Waste Management Act of 1989) to reduce GHG emissions associated with virgin material extraction.	Up to 75 percent of all construction and demolition debris would be diverted from landfills. In addition, an on-site recycling program for paper, aluminum, glass, etc. would be established for the office tenants.
Water Use Efficiency Implement efficient water management practices and incentives, as saving water saves energy and GHG emissions.	The project would reduce water consumption by at least 20 percent by installing water-efficient fixtures, such as low flush toilets, dual flush toilet/urinal controls, and time-control sink faucets. In addition, the project would install drip irrigation systems for all landscaped areas with a master environmental control system. The project would also utilize roof storm water runoff to provide plant irrigation, low water use landscape materials, and prohibit hosing to clean the exterior plaza, courtyard, and parking garage. Landscaping water control measures would reduce potable water consumption by at least 50 percent.
Building Energy Efficiency Standards in Place and in Progress The California Energy Commission updates building energy efficiency standards that apply to newly constructed buildings and additions to and alterations to existing buildings. Both the Energy Action Plan and the Integrated Energy Policy Report call for ongoing updating of the standards.	The project would be designed to meet LEED certification standards. Therefore, the project would reduce energy consumption by 14 percent beyond Title 24 requirements.

Table IV.A-9 (Continued)

Consistency with Applicable California Climate Action Team Strategies

Strategies for Reducing GHG Emissions	Project Consistency
Appliance Energy Efficiency Standards in Place and in Progress The California Energy Commission updates appliance energy efficiency standards that apply to electrical devices or equipment sold in California. Recent policies have established specific goals for updating the standards; new standards are currently in development.	Appliances purchased for the project would be subject to State law and thus comply with the energy efficiency standards that are in effect at the time of purchase.
Measures to Improve Transportation Energy Efficiency Advance cleaner transportation and reduce GHG emissions by providing incentives, enhancing outreach and educational programs to bring a coordinated message of sustainable transportation and root causes of GHG emissions, diversifying the transportation energy infrastructure, and slowing the rate of VMT growth.	Bicycle racks would be provided at the entry level to the new office building to encourage employees to bike to work. In addition, the project would provide shower facilities for employees choosing to bike or walk to work. To promote ridesharing, preferred parking would be available for carpools and vanpools.
Smart Land Use and Intelligent Transportation Apply strategies that integrate transportation and land-use decisions to reduce VMT, such as promoting jobs/housing proximity, high-density residential/ commercial development along transit corridors, and implementing intelligent transportation systems.	The project site is also located within a transit oriented development (TOD) area with close access to nearby rail and bus lines.
Green Buildings Initiative Reduce energy use in public and private buildings to comply with Governor Schwarzenegger's Green Building Executive Order, S-20-04, which mandates a 20 percent reduction in building energy use by 2015.	The project would utilize the following design methods and technologies that reduce heating and cooling loads: high performance glazing on windows, a reflective roof system, and enhanced insulation to minimize solar and thermal gain, as well as increased fresh air ventilation to reduce the use of mechanical heating/cooling air conditioning/circulation. Passive solar design and individual lighting control for 50 percent or more of building occupants would serve to reduce lighting demand. These design features would reduce the project's energy demand, and thus GHG emissions.

CAT strategies not listed are not applicable to this project.

Source: PCR Services Corporation, 2009.

The proposed Project, by implementing the project features and GHG reducing measures described above, results in a net decrease in GHG emissions that represents a substantial break from business as usual. In addition, the City is also taking direct action to reduce emissions from

all new buildings. The project's features and GHG reduction measures, coupled with the City's initiatives, support its consistency with the goals of AB 32. Thus, the project would not result in a cumulatively considerable increase in GHG emissions and cumulative impacts on global climate change are considered less than significant.

In addition, global climate change would not be expected to severely affect the proposed Project. Because the proposed Project is located inland, it would not be affected by changes in sea level. The proposed Project would not require a considerable amount of water resources, and has included water-saving project features; thus, any climate change related fluctuations in available water resources would not adversely impact the proposed Project. Therefore, the potential effect of global climate change on the proposed Project is considered less than significant.

6. LEVEL OF SIGNIFICANCE AFTER MITIGATION

a. Construction

Implementation of the mitigation measures described above would reduce construction emissions for all pollutants, as shown in Table IV.A-10 on page IV.A-70. However, even with implementation of mitigation measures, maximum daily NO_X emissions during Phase 2 construction (mass site grading) would still be approximately 128 pounds per day, which would exceed the SCAQMD regional significance threshold for NO_X during the mass site grading period. Although CARB has passed a regulation to reduce emissions from diesel vehicles through the replacement of older, dirtier engines with newer emission controlled models, NO_X would only be reduced by 32 percent at full implementation in 2020. Therefore, it is unlikely that emissions of NO_X from project construction would be reduced to less than significant levels. As such, project construction emissions after mitigation would represent a significant and unavoidable impact.

b. Operation

As shown in Table IV.A-10, during the operational phase, the proposed Project would not result in regional criteria pollutant emissions that exceed the applicable SCAQMD thresholds; therefore, associated impacts would be less than significant. In addition, no significant impacts related to local CO concentrations would occur for the proposed project, as documented in Table IV.A-7. Furthermore, using CO as a benchmark pollutant for assessing local area air quality impacts from post-construction motor vehicle operation, this impact would also be less than significant.

Table IV.A-10

Mitigated Construction Emissions [a]

	VOC	NOx	CO	SOx	PM_{10} [b]	$PM_{2.5}$
Maximum Regional Emissions (On-site + Off-site) By Stage						
Demolition	3	24	12	<1	6	2
Mass Grading	11	128	54	0	15	7
Building Foundation	5	40	22	<1	2	2
Building Construction , Coating & Paving	44	46	32	<1	3	3
Maximum Regional Emissions	**44**	**128**	**55**	**<1**	**15**	**7**
Regional Construction						
Daily Significance Threshold	75	100	550	150	150	55
Over/(Under)	(31)	28	(496)	(150)	(135)	(48)
Exceed Threshold?	No	**Yes**	No	No	No	No
Maximum Localized Emissions (On-site Only) by Stage						
Demolition	2	16	7	<1	5	2
Mass Grading	4	32	13	<1	11	3
Building Foundation	3	22	12	<1	1	1
Building Construction, Coating & Paving	44	43	22	<1	3	3
Maximum Localized Emissions	**44**	**46**	**22**	**<1**	**11**	**3**
Construction Daily						
Localized Significance Threshold	-	69	783	-	11	4
Over/(Under) Threshold	-	(26)	(761)	-	(0.4)	(1)
Exceed Threshold?	-	No	No	-	No	No

[a] *Pounds per day. Compiled using the URBEMIS 2007 emissions inventory model. The equipment mix and use assumption for each phase is provided in Appendix B of this EIR.*

[b] *PM_{10} emissions estimates are based on compliance with SCAQMD Rule 403 requirements for fugitive dust suppression.*

[c] *SCAQMD LST for Source/Receptor Area 8 (SRA 8, West San Gabriel Valley) for receptors adjacent to or within 50 meters from the boundary of a 1-acre site.*

Source: PCR Services Corporation, 2009.

Project development would be consistent with the air quality polices set forth in the SCAQMD's AQMP. Therefore, impacts related to consistency with applicable plans and policies would be less than significant.

The proposed Project is not anticipated to include any notable TAC emission sources. As such, potential impacts from proposed Project TAC emissions would be less than significant.

By complying with industry standard odor control practices, SCAQMD Rule 402 (Nuisance), and SCAQMD best available control technology guidelines, potential operational impacts that could result from any potential odor source would be less than significant.

IV. ENVIRONMENTAL IMPACT ANALYSIS
B. CULTURAL RESOURCES
1. HISTORIC RESOURCES

1. INTRODUCTION

The purpose of this section is to identify and evaluate historic resources that could be affected by implementation of the proposed Project. This section discusses the environmental setting for historic resources, including the regulatory framework and eligibility criteria, describes the historic context for the property, evaluates the eligibility of potential historic resources for listing in the federal, state and local registers, analyzes potential impacts, and provides mitigation measures to address significant impacts.

2. ENVIRONMENTAL SETTING

a. Regulatory Framework

Historic resources fall within the jurisdiction of several levels of government. Federal laws provide the framework for the identification, and in certain instances, protection of historic resources. Additionally, states and local jurisdictions play active roles in the identification, documentation, and protection of such resources within their communities. The National Historic Preservation Act (NHPA) of 1966, as amended; the California Environmental Quality Act (CEQA); the California Register of Historical Resources, Public Resources Code (PRC) 5024, and the City of Pasadena (Pasadena Municipal Code, Section 17.62) are the primary federal, state and local laws governing and affecting preservation of historic resources of national, state, regional, and local significance. Descriptions of these laws and regulations are provided below.

(1) Federal Level

(a) National Register of Historic Places

First authorized by the Historic Sites Act of 1935, the National Register of Historic Places (National Register) was established by the National Historic Preservation Act of 1966, as "an authoritative guide to be used by Federal, State, and local governments, private groups and citizens to identify the Nation's cultural resources and to indicate what properties should be

considered for protection from destruction or impairment."[1] The National Register recognizes properties that are significant at the national, state, and local levels.

To be eligible for listing in the National Register, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, and association. Four criteria have been established to determine the significance of a resource:[2]

A. It is associated with events that have made a significant contribution to the broad patterns of our history;

B. It is associated with the lives of persons significant in our past;

C. It embodies the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction;

D. It yields, or may be likely to yield, information important in prehistory or history.

A property eligible for the National Register must meet one or more of the above criteria. In addition, unless the property possesses exceptional significance, it must be at least fifty years old to be eligible for National Regist**e**r listing. However, the National Register does not prohibit the consideration of properties less than fifty years in age whose exceptional contribution to the development of American history, architecture, archaeology, engineering, and culture can be clearly demonstrated.

In addition to meeting the criteria of significance, a property must also have integrity. "Integrity is the ability of a property to convey its significance."[3] According to the *National Register Bulletin*, the National Register recognizes seven aspects or qualities that, in various combinations, define integrity. To retain historic integrity a property will always possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance.[4] The seven factors that define integrity are

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[1] *Code of Federal Regulations (CFR), 36 § 60.2.*

[2] *How to Complete the National Register Registration Form, National Register Bulletin, U.S. Department of Interior, National Park Service, 1997. This bulletin contains technical information on comprehensive planning, survey of cultural resources and registration in the National Register of Historic Places.*

[3] *How to Apply the National Register Criteria for Evaluation, National Register Bulletin, U.S. Department of Interior, National Park Service, 1997. p. 44.*

[4] *Ibid.*

location, design, setting, materials, workmanship, feeling, and association. The following is excerpted from the *National Register Bulletin, How to Apply the National Register Criteria for Evaluation*, which provides guidance on the interpretation and application of these factors:

- Location is the place where the historic property was constructed or the place where the historic event occurred.[5]

- Design is the combination of elements that create the form, plan, space, structure, and style of a property.[6]

- Setting is the physical environment of a historic property.[7]

- Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.[8]

- Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.[9]

- Feeling is a property's expression of the aesthetic or historic sense of a particular period of time.[10]

- Association is the direct link between an important historic event or person and a historic property.[11]

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[5] *"The relationship between the property and its location is often important to understanding why the property was created or why something happened. The actual location of a historic property, complemented by its setting is particularly important in recapturing the sense of historic events and persons. Except in rare cases, the relationship between a property and its historic associations is destroyed if the property is moved." Ibid.*

[6] *"A property's design reflects historic functions and technologies as well as aesthetics. It includes such considerations as the structural system; massing; arrangement of spaces; pattern of fenestration; textures and colors of surface materials; type, amount, and style of ornamental detailing; and arrangement and type of plantings in a designed landscape." Ibid.*

[7] *Ibid, p.45.*

[8] *"The choice and combination of materials reveals the preferences of those who created the property and indicated the availability of particular types of materials and technologies. Indigenous materials are often the focus of regional building traditions and thereby help define an area's sense of time and place." Ibid.*

[9] *"Workmanship can apply to the property as a whole or to its individual components. It can be expressed in vernacular methods of construction and plain finishes or in highly sophisticated configurations and ornamental detailing. It can be based on common traditions or innovative period techniques." Ibid.*

[10] *"It results from the presence of physical features that, taken together, convey the property's historic character." Ibid.*

In assessing a property's integrity, the National Register criteria recognize that properties change over time, therefore, it is not necessary for a property to retain all of its historic physical features or characteristics. The property must retain, however, the essential physical features that enable it to convey its historic identity.[12]

For properties that are considered significant under National Register Criteria A and B, the *National Register Bulletin, How to Apply the National Register Criteria for Evaluation* states that a property that is significant for its historic association is eligible if it retains the essential physical features that made up its character or appearance during the period of its association with the important event, historical pattern, or person(s).[13]

In assessing the integrity of properties which are considered significant under National Register Criterion C, the *National Register Bulletin, How to Apply the National Register Criteria for Evaluation* provides that a property important for illustrating a particular architectural style or construction technique must retain most of the physical features that constitute that style or technique.[14]

(2) State Level

(a) California Register of Historical Resources

The California Office of Historic Preservation (OHP), as an office of the California Department of Parks and Recreation, implements the policies of the NHPA on a statewide level. The OHP also carries out the duties as set forth in the Public Resources Code (PRC) and maintains the California Historical Resources Inventory and California Register of Historical Resources.[15] The State Historic Preservation Officer (SHPO) is an appointed official who implements historic preservation programs within the state's jurisdictions. Also implemented at the state level, CEQA requires the identification of substantial adverse impacts that may affect

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[11] *"A property retains association if it is the place where the event or activity occurred and is sufficiently intact to convey that relationship to an observer. Like feeling, association requires the presence of physical features that convey a property's historic character. . . Because feeling and association depend on individual perceptions, their retention alone is never sufficient to support eligibility of a property for the National Register." Ibid.*

[12] *Ibid, p.46.*

[13] *Ibid.*

[14] *"A property that has lost some historic materials or details can be eligible if it retains the majority of the features that illustrate its style in terms of the massing, spatial relationships, proportion, pattern of windows and doors, texture of materials, and ornamentation. The property is not eligible, however, if it retains some basic features conveying massing but has lost the majority of the features that once characterized its style." Ibid.*

[15] *California Public Resources Code § 5024.1(a).*

the significance of identified historic resources through an environmental review process. Further discussion of OHP survey methodology and specific criteria to determine the significance of a resource are provided in subsection 3(b) of this section.

Created by Assembly Bill 2881 in 1992, the California Register of Historical Resources (California Register) is "an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historic resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change."[16] The criteria for eligibility for the California Register are based upon National Register criteria.[17] Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register.[18]

The California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed on the National Register of Historic Places and those formally Determined Eligible for the National Register of Historic Places;
- California Registered Historical Landmarks from No. 770 onward;
- Those California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion on the California Register.[19]

Other resources that may be nominated to the California Register include:

- Individual historical resources;
- Historical resources contributing to historic districts;
- Historic resources identified as significant in historical resources surveys with significance ratings of Category 1 through 5;

[16] *Ibid.*

[17] *California Public Resources Code § 5024.1(b).*

[18] *California Public Resources Code § 5024.1(d).*

[19] *Ibid.*

- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone.[20]

(b) California Register Criteria

To be eligible for the California Register, a historic resource must be significant at the local, state, or national level, under one or more of the following four criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2. Is associated with the lives of persons important in our past;

3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

4. Has yielded, or may be likely to yield, information important in prehistory or history.

Additionally, a historic resource eligible for listing in the California Register must meet one or more of the criteria of significance described above and retain enough of its historic character or appearance to be recognizable as a historic resource and to convey the reasons for its significance. Historic resources that have been rehabilitated or restored may be evaluated for listing.[21]

Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. The resource must also be judged with reference to the particular criteria under which it is proposed for eligibility. It is possible that a historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the California Register.[22]

[20] *California Public Resources Code § 5024.1(e).*

[21] *California Code of Regulations, California Register of Historical Resources (Title 14, Chapter 11.5), § 4852(c).*

[22] *Ibid.*

(3) Local Level

(a) City of Pasadena

The City of Pasadena's Zoning Code, Section 17.62.040, Criteria for Designation of Historic Resources establishes designation criteria for locally significant properties, including historic monuments (Section 17.62.040.B), landmarks (17.62.040.C) and historic signs (17.62.040.D):

Historic Monuments

1. A historic monument shall include all historic resources previously designated by the City of Pasadena, historic resources that are listed in the National Register at the State or Federal level of significance (including National Historic Landmarks) and any historic resource that is significant at a regional, State, or Federal level, and is an exemplary representation of a particular type of historic resource and meets one or more of the following criteria:

    a. It is associated with events that have made a significant contribution to the broad patterns of the history of the region, State, or nation.

    b. It is associated with the lives of persons who are significant in the history of the region, State, or nation.

    c. It is exceptional in the embodiment of the distinctive characteristics of a historic resource property type, period, architectural style, or method of construction, or that is an exceptional representation of the work of an architect, designer, engineer, or builder whose work is significant to the region, State, or nation, or that possesses high artistic values that are of regional, State or national significance.

    d. It has yielded, or may be likely to yield, information important in prehistory or history of the region, State, or nation.

2. A historic monument designation may include significant public or semi-public interior spaces and features.[23]

[23] *City of Pasadena Municipal Code, Section 17.92.040.B, Criteria for Designation of Historic Monuments.*

Landmarks

1. A landmark may be the best representation in the City of a type of historic resource or it may be one of several historic resources in the City that have common architectural attributes that represent a particular type of historic resource. A landmark shall include all properties previously designated by the City of Pasadena and any historic resource that is of a local level of significance that meets one or more of the following criteria:

    a. It is associated with events that have made a significant contribution to the broad patterns of the history of the City, region, or State.

    b. It is associated with the lives of persons who are significant in the history of the City, region, or State.

    c. It embodies the distinctive characteristics of a type, architectural style, period, or method of construction, or represents the work of an architect, designer, engineer, or builder whose work is of significance to the City or, to the region or possesses artistic values of significance to the City or to the region.

    d. It has yielded, or may be likely to yield, information important locally in prehistory or history.[24]

Historic Signs

1. Historic signs include all signs in the City of Pasadena sign inventory and any sign subsequently designated historically significant by the Historic Preservation Commission that possesses high artistic values. A historic sign shall meet one or more or the following criteria:

    a. The sign is exemplary of technology, craftsmanship or design of the period when it was constructed, uses historic sign materials and means of illumination, and is not significantly altered from its historic period. Historic sign materials shall include metal or wood facings, or paint directly on the façade of a building. Historic means of illumination shall include incandescent light fixtures or neon tubing on the exterior of the sign. If the

[24] *City of Pasadena Municipal Code, Section 17.92.040.C, Criteria for Designation of Historic Landmarks.*

sign has been altered, it must be restorable to its historic function and appearance.

b. The sign is integrated with the architecture of the building.

c. A sign not meeting the criteria above may be considered for inclusion in the inventory if it demonstrates extraordinary aesthetic quality, creativity, or innovation. [25]

In addition to the provisions contained in the City of Pasadena's Section 17.62, the City again addresses the ongoing maintenance of historic signs in Section 17.48.100.C, General Provisions for On-Premise Signs; Historic Signs.

b. Identified Historic Resources within the Immediate Project Vicinity (1/4 mile)

The survey study area includes previously identified historic resources within ¼ -mile radius of the project site. The National Register of Historic Places, the State of California Historic Resources Inventory, the Historic Property Data File for Los Angeles County, and the City of Pasadena's list of Designated Historic Properties were consulted in order to determine the number and location of previously recorded historic resources within a ¼ -mile radius of the project site. Within this radius, there are three National Register eligible or listed historic districts, 11 individually-listed properties, and one sign designated by the City of Pasadena. In addition, there are a total of 207 identified properties within the study area that have been surveyed and are recorded in the California Historic Resources Inventory. While several of these identified historic resources are in proximity to the subject property, none are readily viewed from the project site. As a result, no potential indirect impacts on these resources due to the proposed Project are expected and further evaluation of the resources is not required.

The survey study area includes previously identified historic resources within ¼ -mile radius of the project site. The National Register of Historic Places, the State of California Historic Resources Inventory, the Historic Property Data File for Los Angeles County, and the City of Pasadena's list of Designated Historic Properties were consulted in order to determine the number and location of previously recorded historic resources within a ¼ -mile radius of the project site.

National Register eligible or listed properties within the immediate proposed project vicinity total three historic districts and eleven individually-listed properties.

[25] *City of Pasadena Municipal Code, Section 17.92.040.D, Criteria for Designation of Historic Signs.*

The districts and their contributing properties within a ¼ -mile radius are:

1. Old Pasadena Historic District, Arroyo Parkway (NRS: 1S; 9/15/1983)
    a. Union Garage Company, 300 South Fair Oaks Avenue (NRS: 1D; 9/15/1983)
    b. Tanner's Auto Livery, 30 South Pasadena Avenue (NRS 1D; 9/15/1983)
2. Bungalow Courts of Pasadena (Multiple Property Listing; 5/9/1983)
    a. Palmetto Court 100 Palmetto Drive (NRS: 1D; 7/11/1983)
3. South Marengo Historic District, Marengo Avenue (NRS: 1S; 6/12/1982)

Individually-listed properties within a ¼ -mile radius are:

1. Cornet Building, 411 South Arroyo Parkway (NRS: 7N1; 6/19/1991)
2. Home Laundry, 432 South Arroyo Parkway (NRS: 1S; 6/18/1987)
3. Bekins Moving and Storage, 511 South Fair Oaks Avenue (NRS: 1S; 12/12/1997)
4. Bekins Moving and Storage Roof-Top Signage, 511 South Fair Oaks Avenue (NRS: 1S; 11/20/1995)
5. Don Carlos Court, 374 South Marengo Avenue (NRS: 1S; 7/11/1983)
6. Evanston Inn, 385 Marengo Avenue (NRS 1S; 9/13/1984)
7. Bryan Court, 427 South Marengo Avenue (NRS 1S; 4/16/1986)
8. Sara Thel Court, 618 Marengo Avenue (NRS 1S; 7/11/1983)
9. Cottage Court, 642 South Marengo Avenue (NRS 1S; 7/11/1983)
10. Colonial Courts, 744 South Marengo Avenue (NRS 1S; 7/11/1983)
11. Royal Laundry/Milus Textile Service, 443 South Raymond Avenue (NRS 1S; 9/27/2007)

The National Register properties listed above are also listed on the California Register of Historic Places and have all been determined to have a National Register of Historic Places Status of 1 or 2, a California Historical Landmark numbering 770 or higher, or are a California Point of Historical Interest listed after 1/1/1998. Each property also has an assigned California

Historical Resource Status Code (NRS), which specifically identifies the status of the resource as either evaluated, eligible for, or a listed property at national, state and/or local levels.

Within the ¼ -mile radius, there are no additional properties listed on the California Register or California Points of Historical Interest and no California Historical Landmarks.

At the local level, there is one property, a sign, which is designated by the City of Pasadena:

1. Voca Missionary Society Sign, 251 South Fair Oaks (Historic Sign; 11/4/2002)

In addition to those listed above, there are a total of 207 identified properties within the study area that have been surveyed and are recorded in the California Historic Resources Inventory. These properties reflect numerous NRS status codes and they appear eligible for the California Register as an individual property through survey evaluation, are contributing properties to a historic district determined eligible for local listing or designation, are individual properties that are eligible for local listing or designation, or are properties that require reevaluation.

While many of the identified historic resources listed above are in proximity to the subject property, none are readily viewed from the project site. As a result, no potential indirect impacts on these resources due to the proposed project are expected and further evaluation of the resources is not required.

c. Historic Context

(a) Commercial Development in the City of Pasadena - Fair Oaks Avenue and California Boulevard, 1880 - 1951

Pasadena's settlement as a distinct community dates from 1873, when a group of entrepreneurial farmers from Indianapolis formed the "Indiana Colony" with a view toward the purchase of land in a milder, more hospitable climate than the Midwest afforded, and settled on the Pasadena region.[26] The name "Pasadena," generally believed to be a phonetic English translation and combination of the Chippewa words for "valley" and "between the hills," was chosen in 1875 for the new settlement, supplanting various earlier names including the Indiana Colony, California Colony of Indiana, the Orange Grove Association and Muscat.

[26] *Pamela O'Connor, "Architectural/Historical Development of the City of Pasadena: Historic Context/Property Type Report," Prepared by Pamela O'Connor and Urban Conservation for the Planning Division, City of Pasadena, January 13, 1993.*

By 1880, a commercial center known as "The Corners" developed at the intersection of Fair Oaks Avenue and Colorado Boulevard, which remains the heart of Pasadena's central business district.[27] Pasadena's incorporation in 1886 coincided with the great southern California land speculation and population "Boom of the '80s." The period's fast-paced development spurred the construction of various improvements that included sewers, paved streets, and electric street lighting.[28] The local economy, previously dependent upon orange groves and orchards, expanded away from its agricultural roots toward commercial ventures. During this period, Pasadena's central business district consisted of a mix of uses that included industrial, residential, agricultural and civic buildings, which was located roughly a quarter-mile from the subject property. [29]

In 1890, the subject property was comprised of vacant (unoccupied) parcels, as were the majority of the neighboring blocks.[30] Shortly thereafter, in 1903, three residences were constructed on the subject property along California Boulevard.[31] The density of the surrounding, primarily residential, neighborhood had increased significantly by 1910.[32] In the 1920s and 1930s, the area was fully developed with a variety of industrial and service-oriented businesses, which included large-scale laundries, storage facilities and auto shops. [33] The three residences, extant in 1903 were demolished and in their stead, a large rectangular commercial building, circa 1922, was constructed. This building, the future Monty's Steak House at 592 S. Fair Oaks (APN: 5720-001-002), was divided into six store fronts with addresses ranging from 529 through 608 S. Fair Oaks. Businesses in the building included a restaurant and bakery. A residence and three junk shops occupied the southern rear portion of the subject property as well as a "Hand Laundry" and two other buildings facing California Boulevard. Scant information appears in the published historical record or in local telephone directories about former businesses that were located in the area. The building at 590 S. Fair Oaks (APN: 5720-001-001) was constructed in 1922. It appears to have operated primarily as a retail business, or "corner store," throughout its early history. As a corner parcel, the building had high visibility along both S. Fair Oaks Avenue and E. California Boulevard. The building operated as a "Safeway" grocery in the 1930s.[34]

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[27] *Ann Scheid, Pasadena: Crown of the Valley (Pasadena: Windsor Publications, 1986).*

[28] *Heritage: A Short History of Pasadena, http://www.cityofpasadena.net/history/1886-1920.asp, accessed 9-26-08.*

[29] *Downtown Pasadena History, http://www.oldpasadena.org/history1880s.asp, accessed 9-26-08.*

[30] *Sanborn Map and Publishing Company, Insurance Maps of Los Angeles County, 1890.*

[31] *Sanborn Map and Publishing Company, Insurance Maps of Los Angeles County, 1903.*

[32] *Sanborn Map and Publishing Company, Insurance Maps of Los Angeles County, 1910.*

[33] *Sanborn Map and Publishing Company, Insurance Maps of Los Angeles County, 1931.*

[34] *Display Ad No. 6, Los Angeles Times, Aug 23, 1931.*

Many of the buildings present in the vicinity of the subject property during the early 1930s were still extant in the mid-1950s. The single-story concrete-block commercial building at 10 E. California Boulevard (APN: 5720-001-004) appears to have been constructed circa 1960.[35] This portion of the subject property was previously occupied by a dwelling, which is depicted in the 1951 Sanborn map of the vicinity. The commercial building, extant today, is located at the rear of the parcel and is set back from the street, which suggests that its primary purpose may have been either for storage, as a garage, or as an ancillary building subordinate to a primary building that was once located on the parcel. Scant information appears in the published historical record or in local telephone directories about this property. In general, the block as a whole appears to have functioned as a commercial strip within a primarily local context.

(b) Automobile Culture and Related Influences, 1926 - 1951

The influence of the automobile on Los Angeles and the subsequent effects on the city's spatial development throughout the twentieth century is well documented and included trends toward sprawling residential growth; the introduction of numerous "drive-in" building types; and the growth of suburban shopping centers.[36] The development of automobile culture during the twentieth century had profound implications for the American architectural landscape at all levels, from the national scope to the daily requirements of personal life.

Automobile connectivity between Pasadena and the rest of the growing Los Angeles metropolitan area was vital for Pasadena's continued success. Increased reliance on the automobile during this era made prominent signage, generally constructed of neon and metal, an essential feature of businesses along major vehicular arteries. Large signs, clearly visible from automobiles at rapid speeds became commonplace on all types of businesses of the period. At the local level, other commercial corridors emulated the advertising strategy of distinctive roadside signage to attract the automobile traveler.[37]

(c) 592 S. Fair Oaks Avenue/Monty's Steak House, 1951 – 2007, in Local History and Culture

Monty and Libby Levine, a husband and wife team, opened the first Monty's Steak House (Monty's) in 1951 after running restaurant businesses – Howard's Beer Bar and Perry's

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[35] *Los Angeles County, Office of the Assessor, Parcel Record: 12 E California Blvd., Pasadena, CA 91105.*

[36] *Richard Longstreth, City Center to Regional Mall: Architecture, the Automobile, and Retailing in Los Angeles, 1920-1950, Cambridge, MA: The MIT Press, 1998.*

[37] *Ibid.*

Steak House – that were previously located at 592 S. Fair Oaks Avenue.[38] According to local oral history, the Levines, either after having worked for, or as part-owners of Perry's Steak House, purchased the business and renamed it after Mr. Levine. City directory research did not reveal a precise chronology that documented the physical evolution of Monty's in relation to the other businesses in the building; however, a Sanborn map depicts the building as still divided into six businesses in 1951, with a "restaurant," most likely Monty's, occupying the building's northern end.

The vast majority of existing building permits for the property reference electrical and plumbing improvements. These permits do not appear to fully document the property's extant interior and exterior alterations. The year 1953 appears to be when changes were made to the property's primary (west) elevation, so it appears likely that Monty's had become the building's sole occupant by that year. There was also a major exterior renovation in 1961, as indicated by permits for the site; this final major renovation ends the period of significance for the site.

Newspaper research was conducted in order to determine the culinary history, patronage and cultural milieu of Monty's Steak House. The restaurant appears to have had a broad appeal and was generally well-known within the Los Angeles metropolitan area spectrum of dining establishments. Monty's Steak House patrons included members of the local Pasadena community, society page regulars and fine dining connoisseurs.[39]

The popularity of Monty's Steak House appears to have reached its height during the 1950s and 1960s and the success of the Pasadena location enabled the Levine family to expand the Monty's Steak House business to new locations. By 1965, the Mr. and Ms. Levine and their sons, Dennis and Larry, operated five restaurants in the greater Los Angeles metropolitan area. In addition to the original Pasadena location on S. Fair Oaks Avenue, the Levines owned and operated Monty's Steak Houses in Encino and Westwood; Monty's Los Robles Inn Restaurant and Monty's Conejo Lodge Restaurant, both in Thousand Oaks; and Monty's Talk of the Town in Arcadia. In recent years, the declining popularity of family-run steak houses contributed to

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[38] *Janette Williams, "Landmark Restaurant to Close," Pasadena Star-News, June 20, 2007.*

[39] *Joan Winchell, "Touring Taverns," Los Angeles Times, June 12, 1958.*

Joan Winchell, "Items on Thought for Food," Los Angeles Times, December 3, 1959.

Cordell Hicks, "11,000 Restaurants: Take Your Choice," Los Angeles Times, January 2, 1959.

"Monty's Steak House Has Quaint Charm," Los Angeles Times, June 18, 1965.

Erica Wayne, "Gimmee That Old-Time Nutrition: Meat and Potatoes at Monty's," The Pasadena Weekly, March 7, 1985.

Janette Williams, "Landmark Restaurant to Close," Pasadena Star-News, June 20, 2007.

the 2007 closure of Monty's Steak House in Pasadena. The last remaining location of Monty's Steak House is located in Woodland Hills and is still under family ownership.[40]

Given the building's location along a busy commercial strip in Pasadena, and like most commercial restaurants, signage was an essential advertising strategy in order to attract the attention of drivers along Fair Oaks Avenue. Regarding the Monty's Steak House signage, several neon sign permits exist for the property – dated 1935, 1941, 1953, and 1961. These permits document the placement of the signage but provide scant information regarding details of the signage's construction or design. As a result, little is known about the provenance of the extant signs. The sign permits reference two neon and metal signs placed at the building that advertised a previous business on the property in 1935 and 1941, several years before Monty's opened in 1951.[41] The 1953 sign permit for the site includes a detailed sketch of a sign mounting mechanism, but does not describe the signage.[42] The extant pole-mounted neon sign, which is approximately 18 feet high by 30 inches wide, appears to have been mounted in 1953 (Figure IV.B-1 on page IV.B-16). This sign was built in 1953 by the Pasadena Sign Company, and is most likely the pole-mounted sign currently located on the site.

Three additional signs are located on the building's exterior: a wall-mounted neon sign, a freestanding sign and a painted wall sign. The second sign is a wall-mounted neon sign, circa 1961,[43] is located on the building's primary (west) facade parapet (Figure IV.B-2 on page IV.B-17). The sign is attached to the building's exterior with the word "Monty's" rendered in neon. Individually fashioned metal letters cover the neon to create a backlit effect.

The third sign, a freestanding sign, circa 1975, is located behind the restaurant (east) in the Monty's Steak House parking lot and is primarily visible from California Boulevard (Figure IV.B-3 on page IV.B-18). This square sign is a non-illuminated, double-faced, and constructed of plastic, with red and black lettering and the words "Monty's Steak House Customer Parking." The sign has a small arrow pointing towards the parking lot.[44]

The fourth sign, a wall advertisement, is located on the western portion of the building's south facing elevation. The sign, which is painted directly on the stucco exterior, has the single word "Monty's" rendered with a simple serif script in a burgundy color. The wall sign's date

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[40] *Janette Williams, "Landmark Restaurant to Close," Pasadena Star-News, June 20, 2007.*

[41] *Sign Permit, 592 S. Fair Oaks, Department of Building, City of Pasadena, Approved April 4, 1935.*

[42] *Sign Permit, 592 S. Fair Oaks, Department of Building, City of Pasadena, Approved February 16, 1953.*

Sign Permit, 592 S. Fair Oaks, Department of Building, City of Pasadena, Approved July 24, 1941.

[43] *Sign Permit, 592 S. Fair Oaks, Department of Building, City of Pasadena, Approved November 16, 1961.*

[44] *Sign Permit, 592 S. Fair Oaks, Department of Building, City of Pasadena, Approved September 16. 1975.*

PCR

Figure IV.B-1
Pole-Mounted Neon Sign
South Elevation, View Northeast

Source: PCR Services Corporation, 2008.

PCR

Figure IV.B-2
Wall-Mounted Neon Sign
West Elevation, View East

Source: PCR Services Corporation, 2008.

PCR

Figure IV.B-3
Freestanding Sign
View Northwest

Source: PCR Services Corporation, 2008.

and provenance is unknown. It appears recently painted in a script that matches the 1961 wall-mounted neon sign (Figure IV.B-4 on page IV.B-20).

The Pasadena location of Monty's Steak House closed in June 2007 after 66 years. The period of significance of the subject property begins with the opening of Monty's Steak House in 1951 until the date of the last major renovation to the property, which occurred in 1961.

d. Existing Conditions

The project site includes five parcels located at the southeast corner of S. Fair Oaks Avenue and E. California Boulevard. Buildings located on the project site, which have not been previously evaluated include the buildings at 592 S. Fair Oaks Avenue (APN: 5720-001-002), 590 S. Fair Oaks Avenue (APN: 5720-001-001) and 10 E. California Boulevard (APN: 5720-001-004). The two remaining parcels within the project site function as surface parking lots (APN: 5720-001-003 and APN: 5720-001-005). Two neon signs from the 1951-1961 period of significance - one previously evaluated and listed in the Pasadena Historic Sign Inventory and one unevaluated - located at 592 S. Fair Oaks Avenue appear potentially eligible as historic resources.

(a) 592 S. Fair Oaks Avenue (APN: 5720-001-002)

Architectural Description

The single-story commercial building located at 592 S. Fair Oaks Avenue has a rectangular plan that is approximately 6,720 square feet in area. The building is located on a commercial street. The building's setting is typified by dense commercial development along S. Fair Oaks Avenue, a busy local arterial that is parallel to the nearby Pasadena Freeway. Directly to the north of the subject property, a modest 1922 commercial building occupies the block's corner parcel at S. Fair Oaks Avenue and California Boulevard. This commercial building obscures the subject property's north façade. Surface parking lots border the subject property to the south and the east.

Constructed in 1922, the subject property is constructed of unreinforced brick masonry with added steel monument frames and a wood-framed roof. It has been updated to a contemporary appearance and is covered primarily in stucco and wood. The utilitarian exterior exhibits restrained vernacular modern influences, which are visible in its materials, massing, lines, and overall composition. The vernacular modern elements coincide with the building's use as Monty's Steakhouse.

Figure IV.B-4
Painted Wall Sign
South Elevation, View Northwest

Source: PCR Services Corporation, 2008.

The primary (west) façade is covered in stucco with the lower portions covered in thinly cut vertical wood slats that provide some texture to the flat, windowless façade. The primary entrance is recessed, punctuated by a projecting square-shaped stucco awning that prominently overhangs the sidewalk. The south elevation is windowless and covered entirely in stucco with a large "Monty's" sign located on the northwest section. This sign is painted directly on the façade in a simple serif script. The rear (east) elevation is distinguished by the building's original brick covering and recessed openings for service doors, windows and vents. The brick covering is worn and in generally poor condition. Most of the original doors appear to be replacements and several window openings are filled with brick. The remaining, and possibly original, wood frame 2/2 sash windows are obscured by security bars and several of the vent openings are covered by wood boards. The subject property's north elevation is not visible due to the adjacent commercial property.

Historical research indicates that the building, which once had six commercial storefronts on its primary (west) facade, has been extensively altered on both its interior and exterior since its 1922 construction. As a result, the property has a disjointed appearance, as the original 1922 brick covering is extant on the building's east non-public façade while the remainder of the building's exterior was modified in the mid-1950s in the vernacular modern style. The vernacular modern style alterations are typical, roughly constructed and do not exhibit the fine level of detailing that often characterize vernacular modern style buildings. The exterior does not exhibit a historical or architectural connection singularly unique to its decades-long occupant, Monty's Steak House.

In addition to the building's exterior, the interior was surveyed in order to thoroughly identify and consider existing character-defining features associated with Monty's Steak House as a part of the integrity and significance assessment. The property's interior is a minimal interpretation of vernacular modern style architecture. The dining area is divided into three rooms consisting of a shared bar/dining area and two additional rooms exclusively for dining. Oversized red leather button-tufted semi-circular booths comprise the majority of the seating. A curved wood bar with stools is extant. Mirrors cover several wall sections. Other walls are covered in thin, vertical, darkly varnished wooden slats with irregularly spaced, rectangular cut-out openings for single panes of colored glass, which creates a simple geometric effect. Other character-defining features of the interior include wooden partitions with simple vernacular modern style detailing, a low ceiling, and dark burgundy-colored wall-to-wall carpet. The kitchen is utilitarian and in poor condition.

A pole-mounted neon and metal double-faced sign is located near the building's southwest corner. The vertically oriented sign exhibits a sans-serif all-caps letter font as its primary design element. The word "Monty's," outlined in neon is the sign's largest and most prominent text. The word "Cocktails" is similarly outlined in neon yet considerably smaller than the dominant "Monty's" text and is aligned vertically at a slight diagonal angle facing away from

the subject property and towards Fair Oaks Avenue. The words "Customer Parking" are arranged horizontally on two lines near the base of the sign and are simply rendered in a single tube of neon.

The Monty's Steak House wall-mounted neon sign, circa 1961, is located on the building's primary (west) façade parapet.[45] The sign is attached to the exterior wall and consists of the word "Monty's" rendered in neon. Individually fashioned metal letters cover the neon tubing to create a backlit effect, although the metal letter covering for the letter "M" is no longer extant.

The two remaining signs on the site, the plastic parking sign and the wall-painted sign, are still extant. The plastic parking sign is located in the parking area and was made in 1975. The painted "Monty's" wall sign exhibits signs of having recently been repainted, but it is unclear when the sign was first placed on the south-facing wall of the restaurant.

(1) Physical Condition of the Site

The building retains its original location but its integrity of design, materials, and workmanship have been substantially compromised by later alterations. The historic commercial setting of the property is no longer extant. As a result, the subject property is an isolated example of its property type within its local context. Architecturally, the property is heavily altered from its original construction. Only the rear (east) façade exhibits the building's original 1920s construction with the remainder covered by mid-1950s additions. The 1920s era exposed construction elements are also utilitarian and service-facing, and do not exhibit any specific aesthetic. The property's vernacular modern style exterior and interior alteration associated with Monty's Steak House are partially intact, plain, and roughly constructed. Integrity is addressed further, as appropriate, in evaluating each potential category of significance, as described below.

The pole mounted neon and metal double-faced sign near the building's southwest corner appears to retain its original location and most features of design, materials, and workmanship. The original streetscape setting for the sign is no longer extant.

The wall-mounted sign is in good condition and is nearly intact except for a missing "M" metal letter covering, which is a repairable and reversible condition. It retains its original location and most of its design, materials, and workmanship. The sign's streetscape setting is no longer extant.

[45] *Sign Permit, 592 S. Fair Oaks, Department of Building, City of Pasadena, Approved November 16, 1961.*

The two remaining signs, the plastic sign and the painted wall sign, are still extant and are in generally good condition.

Significance

The Monty's restaurant building meets the 50-year age consideration of the National Register and the 45-year age guideline for the California Register and is evaluated below. The site is also eligible for inclusion as a Pasadena monument or landmark, and that analysis is also included below.

There are also four signs associated with the property: a pole-mounted neon sign (circa 1951-1953 ~~1941~~); a wall-mounted neon sign (circa 1961); a freestanding sign (circa 1975) and a painted wall sign (date unknown). Two of these four signs – the pole-mounted sign and the wall-mounted sign - meet the 50-year age consideration of the National Register and the 45-year age guideline for the California Register and are evaluated below, while the painted sign is also evaluated due to the fact that the date of its painting is unknown. The plastic parking sign is not evaluated due to its known age of less than 45 years.

(2) Building

(a) National Register Criteria Analysis

No evidence was found that connected the property with events that have made a significant contribution to the broad patterns of national history (Criterion A). The historical record does not indicate that the building has an association with the productive life of a person important in national history (Criterion B). Structurally, the building is not unique or innovative and it does not embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, or possess high artistic values (Criterion C). The building has not yielded, nor is it likely to yield, information important in prehistory or history (Criterion D). Because there is no indication that the building has the potential to qualify for any criteria under the National Register, no further integrity analysis is required.

(b) California Register of Historic Resources Analysis

There is no indication that the building has a strong association with events that have made a significant contribution to the broad patterns of California's history and cultural heritage (Criterion 1), although it could be possible that the aggregate of persons known to frequent Monty's in the 1950s and 1960s could meet this criterion. However, as discussed below with respect to Criterion 2, the associations with persons of note in Pasadena and the surrounding areas are not strong enough to meet Criterion 2, or when therefore aggregated, Criterion 1.

Regarding Criterion 2, the building and business do have associations that connect the property to local persons of note. As Monty's was a popular steak house in the 1950s, it hosted persons from throughout the area, including persons of note, such as the Chandler family, owners of the *Los Angeles Times*. However, there is no indication that there is a specific association with a specific person or persons of note in any context other than the general overall popularity of the restaurant. In addition, the relative integrity of the building's interior and exterior are severely impacted wherein it is difficult to reconcile the character-defining features of the interior and exterior of the site with the period of significance and any potential visitor to the restaurant. The period of significance for the restaurant runs from 1951-1961, yet many of the character-defining features of the site have been modified and replaced since that time.

The seven-prong integrity analysis for this Criterion challenges potential significance due to both internal and external changes to the building and the site, even if Criterion 2 was met. While the location remains the same, the remaining elements of integrity are severely compromised. The design of the building has varied over time, resulting in a vernacular modern style that has been updated and modified over time, although the restaurant footprint has remained substantially the same. The setting has changed dramatically over time; while Monty's was once in the heart of a vibrant commercial district, it is now located in a primarily industrial area that is growing and changing to a bioscience research area through direction by the City and the planning process. The materials used to build the building remain but have been modified since the period of significance, as exterior cladding and stucco has been added to the building and modifications have been made since the period of significance to ensure continued operation of the restaurant until its 2007 closure. The building coverings, especially the brick facings, are extremely worn. Workmanship at the site is poor and rough and represents utilitarian goals of a facility that operated in the evenings and with dark interiors. Feeling mildly remains at the restaurant, as the style of the restaurant, as a darkly lit steak house, has changed little since the period of significance, although the setting and materials have changed. As the restaurant waned in popularity after the period of significance, however, much of the feeling that made the restaurant popular during the period of significance ended, and was concluded permanently as the restaurant closed in 2007. With regards to association, there is no indication that Monty's steak house served as a direct link between an important historic event or person and the property. While Monty's was a popular restaurant that hosted persons of interest in society columns of the 1950s and 1960s, there is no specific or long-term association with any person or event of significance running from the period of significance for the site.

Overall, integrity of the site with respect to potential significance under Criterion 2 is, at best, marginal, as are the site's associations with important persons of the state's past. Thus, this Criterion is not met.

As a modest and severely modified commercial building, the building fails to exhibit the minimum threshold for eligibility for consideration as a historical resource for its property type,

historical association, architectural style, or method of construction, and is not the work of an important creative individual or master. The building also fails to possess high artistic values (Criterion 3). The building has not yielded, not is it likely to yield, information important in prehistory or history (Criterion 4).

In conclusion, the building does not appear potentially eligible under California Register Criteria 1, 2, 3, or 4. The building is now the most recognizable as a simple interpretation of the mid-century vernacular modern style.

(c) Pasadena Historic Monument and Landmark Status

Similarly, at the local level, the building on the subject property does not appear eligible under City of Pasadena Criteria 1, 2, 3, or 4 as a historic monument or landmark. The building has a long association as the location of a well-established Pasadena dining establishment – Monty's Steak House - for 56 years, from 1951 until Monty's closure in 2007. However, despite the lengthy historical association with Monty's, the physical remains of the building do not convey a strong association with the business, as discussed above. The property is not associated with significant City or regional with historical patterns or events (Criterion 1). The historical record does not indicate that the building was associated with the productive life of a person important in national, state, or local history (Criterion 2). As a modest commercial building, the building does not exhibit the minimum threshold for eligibility for consideration as a historic resource for its property type, historical association, architectural style, or method of construction. The building is typical of its period and it is not associated with high artistic values of national, state, regional, or local significance. No evidence indicates that the building is an important or notable work of a master architect (Criterion 3). The building has not yielded, not is it likely to yield, information important in prehistory or history (Criterion 4).

(d) Pasadena Historic Sign Ordinance Analysis

In addition to its Historic Monument and Landmark Ordinance, the City of Pasadena has a Historic Sign Ordinance. The signs on the property are analyzed below. The Historic Sign Ordinance reads as follows:

1. Historic signs include all signs in the City of Pasadena sign inventory and any sign subsequently designated historically significant by the Historic Preservation Commission that possesses high artistic values. A historic sign shall meet one or more or the following criteria:

    a. The sign is exemplary of technology, craftsmanship or design of the period when it was constructed, uses historic sign materials and means of

illumination, and is not significantly altered from its historic period. Historic sign materials shall include metal or wood facings, or paint directly on the façade of a building. Historic means of illumination shall include incandescent light fixtures or neon tubing on the exterior of the sign. If the sign has been altered, it must be restorable to its historic function and appearance.

b. The sign is integrated with the architecture of the building.

c. A sign not meeting the criteria above may be considered for inclusion in the inventory if it demonstrates extraordinary aesthetic quality, creativity, or innovation. [46]

In addition to the provisions contained in the City of Pasadena's Section 17.62, the City again addresses the ongoing maintenance of historic signs in Section 17.48.100.C, General Provisions for On-Premise Signs; Historic Signs.

The building's pole-mounted sign, circa 1951-1953, was approved for inclusion in the Pasadena Historic Sign Inventory by the Pasadena Cultural Heritage Commission on August 4, 1987. The sign, having been included on the sign inventory, was automatically designated as a Historic Sign by the City of Pasadena in November 2002, after the City passed criteria for the designation of historic signage.[47] The sign meets the requirements for designation as a historic sign under Section 17.62.040.D of the Pasadena Municipal Code. Under Criterion 1.a., the sign is an excellent example of technology, craftsmanship, and design of modest signage of the early 1950s. Constructed of neon and metal, the sign uses historic sign materials and means of illumination. In addition, the sign is in excellent condition and is not significantly altered from its historic period.[48] The sign is not integrated into the building's architecture and therefore does not appear to meet Criterion 1.b. The sign, modest and simple, is typical of signage of its historical period and, as a result, does not appear to "demonstrate extraordinary aesthetic quality, creativity, or innovation" per Criterion 1.c. Given that the sign meets Criterion 1.a, and the sign is already designated by the City of Pasadena, the sign is considered a historical resource pursuant to Section 15064.5(a)(2)(3) of the CEQA Guidelines.

The building's wall-mounted sign, circa 1961, is associated with the mid century period of roadside signage. The sign, similar to the 1951 pole-mounted neon sign, is representative of

[46] *City of Pasadena Municipal Code, Section 17.92.040.D, Criteria for Designation of Historic Signs.*

[47] *City of Pasadena, August 2008.*

[48] *City of Pasadena Municipal Code, Section 17.92.040.D, Criteria for Designation of Historic Signs.*

its historical period. The sign's mid-century typography and sleek styling is a modest vernacular interpretation of vernacular modern style. In addition, the sign has a decades-long association with Monty's Steak House, a well-known bar and steak house that operated in Pasadena from 1951 to 2007. At the local level, the wall-mounted neon sign appears to meet the requirements for designation as a historic sign under the criteria listed in Section 17.62.040.D of the Pasadena Municipal Code. The sign is a good example of technology, craftsmanship, and design of modest signage of the early 1960s, as is indicated under Criterion 1.a. Constructed of neon and metal, the sign uses historic sign materials and means of illumination. The sign is missing the metal covering on one of its letters, a likely repairable and reversible condition, and is otherwise in good condition. The sign does not appear to have been significantly altered from its historic period.[49] The sign, which is attached to the building, is moderately integrated into the building's architecture, in that it is attached to the building, and, therefore, is potentially eligible per Criterion 1.b, although there is no specific architectural design that embraces the signage as much as the sign is attached to a plain building face likely designed for signage of the resident business. The plain building face does not embrace the signage design into the architecture, and it is thus highly unlikely that the sign meets Criteria 1.b. although it is acknowledged that the sign is attached to the building. The sign is likely ineligible under Criterion 1.c. While the sign includes an unusual backlit design which exhibits an aesthetic quality that is evocative of its historical period, there is no specific artistic quality to the sign that meets this Criterion. In addition, since the sign already meets Criterion 1.a., the Criterion 1.c. need not be considered as it states it is to be used if 1.a. or 1.b. do not apply. Given that the sign appears to meet Criterion 1.a, the sign appears potentially eligible as a historic resource at the local level. Pursuant to Section 15064.5(a)(2)(3) of the CEQA Guidelines, the sign is considered a historical resource.[50]

The building's painted sign, of unknown date, is also evocative of the modest vernacular interpretation of the vernacular modern style. The script of the wall sign is the same as the 1961 font and text, although it is not lit and does not appear to have been designed to be a primary source of roadside identity, as the pole-mounted and wall sign were both neon-lit and more likely attracted business to the site during the evenings when the steak house operated. Under the historic sign criteria for the City of Pasadena, there is no indication that this sign meets the requirements for historic signs. The date of the sign is unknown, and the sign is not known to be exemplary of technology, craftsmanship, or design of any specific period pursuant to Criterion 1.a. Instead, it appears to be simply a painted copy of the neon sign on the Fair Oaks-facing portion of the building. The wall-painted sign is not integrated with the architecture of the building, except that it is painted on the building. There is no design feature or shape, other than a blank wall, to host the sign. Thus, it does not appear to meet Criterion 1.b. There is also no indication of extraordinary aesthetic quality, creativity, or innovation that would make the sign

[49] *City of Pasadena Municipal Code, Section 17.92.040.D, Criteria for Designation of Historic Signs.*

[50] *CEQA Guidelines. Section 15064.5(a)(2)-(3).*

eligible under Criterion 1.c. Thus, the wall-painted sign does not appear to meet the Criteria for significance under the Pasadena Historic Sign ordinance.

In conclusion, the building does not appear potentially eligible as an historical resource under any of the applicable National Register of Historic Places, California Register of Historic Properties, or City of Pasadena criteria. Pursuant to Section 15064.5(a)(2)(3) of the CEQA Guidelines, the building is not considered a historical resource.[51] However, as discussed above, the building's examples of pole-mounted and wall-mounted neon signage appear eligible and potentially eligible under Section 17.62.040.D of the Pasadena Municipal Code. Therefore, pursuant to Section 15064.5(a)(2)(3) of the CEQA Guidelines, the building is not considered a historical resource and is a non-contributing component of the subject property, but the pole-mounted and wall-mounted signage are considered historical resources and are contributing components of the subject property.

(e) 590 S. Fair Oaks Avenue (APN: 5720-001-001)

Review of the Los Angeles County Assessor's property records for 590 S. Fair Oaks Avenue indicates that the building meets the 50-year age consideration of the National Register and the 45-year age guideline for the California Register.

Architectural Description

The single-story rectangular commercial building located at 590 S. Fair Oaks Avenue is approximately 2,720 square feet in area. The building's setting is typified by its corner parcel location in the midst of dense commercial development along S. Fair Oaks Avenue, a busy local arterial that is parallel to the nearby Pasadena Freeway. The building directly abuts 592 S. Fair Oaks to the south, which obscures the subject property's south façade. The building has a concrete foundation and a flat roof. The overall massing and design of the property exhibits characteristics of a modest 1920s commercial building typical of the period. As a corner parcel, both the west and north elevations appear primary and are covered in stucco.

The property, circa 1922, was divided at some point in order to house two businesses. In turn, the building exhibits two distinct physical conditions. While the western portion of the building retains some of its original architectural detail, the eastern portion has been so substantially altered so that much of its original detail has been lost. The building's western portion has an original recessed corner entrance, located at the northwest corner of the property, with a replacement metal door and transom. There is a single band of windows on each elevation. The building's original recessed corner entrance is also flanked by display windows;

[51] *CEQA Guidelines. Section 15064.5(a)(2)-(3).*

however, these window openings are covered by wood boards and are not functional. All original detail associated with the property's windows and doors are missing. The building's eastern portion has two fixed metal windows on its primary (north) façade that are adjacent to a metal door, covered by a large awning. The property's east elevation has a series of small window openings, currently covered by plywood boards.

Physical Condition of the Site

The property at 590 S. Fair Oaks Avenue is in generally poor condition. As a commercial property from the 1920s, it retains its original location and basic elements of its original design, but has been substantially altered and degraded over time.

Significance

National Register Criteria Analysis

The building at 590 S. Fair Oaks Avenue has not been previously evaluated at the federal, state, or local level as a historic resource. It does not appear eligible for either individual listing or as a contributor to a historic district under any applicable criteria. The building, circa 1922, is a typical representative example of commercial buildings of the period found throughout the nation as well as in Southern California and Pasadena. No evidence was found that connected the property with events that have made a significant contribution to the broad patterns of national history (Criterion A). The historical record does not indicate that the building has an association with the productive life of a person important in national history (Criterion B). Structurally, the building's concrete foundation, flat roof, and exterior cladding are not unique or innovative and it does not embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, or possess high artistic values (Criterion C). The building has not yielded, not is it likely to yield, information important in prehistory or history (Criterion D). The building's loss of integrity precludes it from listing in the National Register and it does not meet the threshold of significance for National Register Criteria A, B, C, or D.

California State Register Criteria Analysis

At the state level, the property does not appear eligible under California Register Criteria 1, 2, 3, or 4, which closely follow the National Register criteria. Similarly, there is no evidence that the building is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage (Criterion 1). No evidence was found that connected the property to historical patterns or specific historical events of statewide importance. Neither does the historical record indicate that the building has an association with the productive life of a person important in California history (Criterion 2). As a modest, undistinguished commercial building lacking architectural integrity, the building does not exhibit

the minimum threshold for eligibility for consideration as a historic resource for its property type, historical association, architectural style, or method of construction (Criterion 3). The building has not yielded, nor is it likely to yield, information important in prehistory or history (Criterion 4).

Pasadena Historic Monument and Landmark Analysis

Similarly, at the local level, the property does not appear eligible under City of Pasadena Criteria 1, 2, 3, or 4 as a historic monument or landmark. While the building's overall design and scale is representative of the types of construction that occurred during Pasadena's 1920s period of commercial expansion, the property is a common example of its type and style, with few distinguishing characteristics, and, as such, does not exhibit a strong association with this historical pattern. No evidence was found that connected the property to other historical patterns of the area or specific historical events. Today, the property's historical setting is largely absent, which further reduces the property's association with historical patterns or events (Criterion 1). Scant information appears in the published historical record about prior businesses that were located in the building. It appears that the property operated primarily as a retail business throughout its history and functioned as a "Safeway" grocery store in the 1930s.[52] The historical record does not indicate that the building was associated with the productive life of a person important in national, state, or local history (Criterion 2). As a modest, undistinguished commercial building lacking architectural integrity, the building does not exhibit the minimum threshold for eligibility for consideration as a historic resource for its property type, historical association, architectural style, or method of construction. The building is typical of its period and it is not associated with high artistic values of national, state, regional, or local significance. No evidence indicates that the building is an important or notable work of a master architect (Criterion 3). The building has not yielded, not is it likely to yield, information important in prehistory or history (Criterion 4).

Pasadena Historic Sign Ordinance Analysis

The building does not have any signage that has been listed by the City of Pasadena in its Historic Sign Inventory and does not appear to possess any signage that meets the requirements of the Ordinance for listing in the Historic Sign Inventory.

In summary, the building does not appear potentially eligible as an historic resource under any of the applicable National Register of Historic Places, California Register of Historical

[52] *Display Ad No. 6, Los Angeles Times, Aug 23, 1931.*

Resources, or City of Pasadena criteria. Pursuant to Section 15064.5(a)(2)(3) of the CEQA Guidelines, the building is not considered a historic resource.[53]

(f) 10 E. California Boulevard (APN: 5720-001-003)

Review of the Los Angeles County Assessor's property records for 10 E. California Boulevard indicates that the building meets the 45-year age guideline for the California Register.

Architectural Description

The single-story rectangular commercial building, circa 1960, located at 10 E. California Boulevard is approximately 3,390 square feet in area. The building's setting is typified by its placement at the rear portion of the parcel. The primary (east) façade is oriented toward Edmonson Alley rather than the busy local arterial E. California Boulevard, which suggests that its primary purpose was either for storage, as a garage, or as an ancillary building subordinate to a primary building that was once located on the parcel. The utilitarian building has a concrete foundation and a flat roof. It is constructed of concrete block with openings only on its east façade.

Physical Condition of the Site

As a commercial property from the 1960s, the building at 10 E. California Boulevard retains its original location, design and materials. The property is utilitarian and roughly constructed with a low quality of workmanship, and is in poor condition.

Significance

National Register Analysis

The building at 10 E. California Boulevard has not been previously evaluated at the federal, state, or local level as a historic resource. It does not appear eligible for either individual listing or as a contributor to a historic district under any applicable criteria. At the federal level, the property does not meet the age threshold of the National Register. In addition, the building, circa 1960, is a typical representative example of utilitarian commercial buildings of the period found throughout the nation. No evidence was found that connected the property with events that have made a significant contribution to the broad patterns of national history (Criterion A). The historical record does not indicate that the building has an association with the productive life of a person important in national history (Criterion B). Structurally, the building's concrete

[53] *CEQA Guidelines. Section 15064.5(a)(2)-(3).*

foundation, flat roof, and exterior cladding are not unique or innovative and it does not embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, or possess high artistic values (Criterion C). The building has not yielded, not is it likely to yield, information important in prehistory or history (Criterion D). The building does not meet the threshold for Criteria A, B, C, or D and therefore no additional integrity analysis is required.

California State Register Analysis

At the state level, the property does not appear eligible under California Register Criteria 1, 2, 3, or 4, which closely follow the National Register criteria. Similarly, the building is not associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage (Criterion 1). No evidence was found that connected the property to historical patterns or specific historical events of statewide importance. Neither does the historical record indicate that the building has an association with the productive life of a person important in California history (Criterion 2). As a modest, undistinguished commercial building lacking architectural integrity, the building does not exhibit the minimum threshold for eligibility for consideration as a historic resource for its property type, historical association, architectural style, or method of construction (Criterion 3). The building has not yielded, not is it likely to yield, information important in prehistory or history (Criterion 4).

California State Register Analysis

Similarly, at the local level, the property does not appear eligible under City of Pasadena Criteria 1, 2, 3, or 4 as a historic monument or landmark. While the building's overall design and scale is representative of utilitarian construction, the property is a common example of its type and style, with few distinguishing characteristics and, as such, does not exhibit a strong association with the local historical pattern of commercial and industrial development. No evidence was found that connected the property to other historical patterns of the area or specific historical events. Today, the property's historical setting is largely absent, which further reduces the property's association with historical patterns or events (Criterion 1). Scant information appears in the published historical record about prior businesses that were located in the building. The historical record does not indicate that the building was associated with the productive life of a person important in national, state, or local history (Criterion 2). As a modest, undistinguished commercial building lacking architectural integrity, the building does not exhibit the minimum threshold for eligibility for consideration as a historic resource for its property type, historical association, architectural style, or method of construction. The building is typical of its period and it is not associated with high artistic values of national, state, regional, or local significance. No evidence indicates that the building is an important or notable work of a master architect (Criterion 3). The building has not yielded, not is it likely to yield, information important in prehistory or history (Criterion 4).

Pasadena Historic Sign Ordinance Analysis

The building does not have any signage that has been listed by the City of Pasadena in its Historic Sign Inventory and does not appear to possess any signage that meets the requirements of the Ordinance for listing in the Historic Sign Inventory.

In summary, the building does not appear potentially eligible as an historic resource under any of the applicable National Register of Historic Places, California Register of Historical Resources, or City of Pasadena criteria. Pursuant to Section 15064.5(a)(2)(3) of the CEQA Guidelines, the building is not considered a historic resource.[54]

3. ENVIRONMENTAL IMPACTS

a. Methodology

A multi-step methodology was utilized to evaluate the potential impacts of the proposed Project on historic resources. The historic resources assessment included archival records searches and literature reviews to determine: if known historic resources have previously been recorded within a one-quarter mile radius of the project site; if the project site has been systematically surveyed by historians prior to the initiation of the study; and/or whether there is other information that would indicate whether or not resources on the site or in the immediate vicinity may be historically significant. PCR Services Corporation conducted a records search at the South Central Coastal Information Center (CHRIS-SCCIC) housed at California State University, Fullerton. This record search included a review of all previous historic resources investigations within a ¼ -mile radius of the Project Site. In addition, the California Points of Historical Interest (PHI), the California Historical Landmarks (CHL), the California Register of Historical Resources (California Register), the National Register of Historic Places (National Register), the California State Historical Resources Inventory (HRI), and the City of Pasadena's Designated Historic Properties were reviewed.

Site inspections and property history research were conducted to document and assist in assessing the existing conditions. The field inspection of the study area was conducted by Mr. Jon Wilson, M. Arch., Senior Architectural Historian and Ms. Marlise Fratinardo, M.L.A., Associate Architectural Historian, on August 27, 2008 utilizing the survey methods of the State Office of Historic Preservation (OHP). The intensive-level pedestrian survey of the Project Site included physical examination of the exterior and interior of Monty's Steak House as well as the exteriors of the other buildings on the site and within the immediate project vicinity, which were

[54] *CEQA Guidelines. Section 15064.5(a)(2)-(3).*

recorded through color 35mm digital photography and manuscript notes. This data was used to assist in evaluating properties for significance. Site-specific research on the subject property and vicinity utilizing Sanborn fire insurance maps, city directories, newspaper articles, historic photographs, and other published sources was conducted by Ms. Fratinardo and Ms. Amanda Kainer, M.A., Assistant Architectural Historian, during the months of September and October 2008. This information was incorporated into the historic context for the subject property and was used in the architectural analysis of existing conditions. Ordinances, statutes, regulations, bulletins, and technical materials relating to federal, state, and local historic preservation, designation assessment processes, and related programs were reviewed and analyzed. The criteria of the National Register, California Register, and the City of Pasadena were employed to evaluate the potential historical and architectural significance of the assessed properties. The potential impacts of the proposed Project were then analyzed in accordance with Section 15064.5 of the CEQA Guidelines.

b. Thresholds of Significance

(1) CEQA Guidelines

Appendix G of the CEQA Guidelines provides a checklist of questions to assist in determining whether a project would have a significant impact related to various environmental issues including historic resources. The current CEQA Guidelines state that a project involves a "substantial adverse change" when one or more of the following occurs:

- Substantial adverse change in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired.[55] and/or

- The significance of a historical resource is materially impaired when a project:[56]

  a. Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or

  b. Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical

[55] *State CEQA Guidelines, 14 CCR Section 15064.5(b)(1).*

[56] *State CEQA Guidelines, 14 CCR Section 15064.5(b)(2).*

resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in a historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

c. Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

The Secretary of the Interior's Standards for Rehabilitation (Standards) are codified at 36 Code of Federal Regulations (CFR) Section 67.7. The Standards are designed to ensure that rehabilitation does not impair the significance of a historic property. In most circumstances, the Standards are relevant in assessing whether there is a substantial adverse change under CEQA. Section 15064.5b(3) of the CEQA Guidelines states in part that "…a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995), Weeks and Grimmer, shall be considered as mitigated to a level of less than a significant impact on the historic resource."

(2) The Preservation of Historic Signs

In addition to the CEQA Guidelines and the Standards, National Park Service Preservation Brief 25, "The Preservation of Historic Signs," recommends guidelines for the preservation of historic signs in order to preserve their intrinsic history. Preservation briefs are intended to guide homeowners, preservation professionals, organizations, and government agencies in their endeavors to preserve, rehabilitate and restore historic buildings. The National Park Service suggests several options for preserving historic signage:

- *Retain.* The first National Park Service recommendation is to simply retain the historic sign. The National Park Service recommends that a historic sign should be kept unaltered in the same location even if the historic sign no longer identifies the building's occupant. This is especially important when the sign is "associated with historic figures, events or places; significant as evidence of the history of the product, business or service advertised; significant as reflecting the history of the building or the development of the historic district; characteristic of a specific historic period; integral to the building's design or physical fabric; an outstanding example of the signmaker's art; a local landmark; or elements important in defining the character of a district." The historic sign most likely has significance to the community.

- *On-Site Relocation.* If the sign cannot be preserved in place, the National Park Service recommends relocating the sign into the interior of the building. Interior relocation preserves the sign at the site and presents a future opportunity to place the sign back in its historic location.

- *Alter.* Another option is for the new business to alter the sign with the new business name. Altering the sign is only recommended if the essential character of the sign is not destroyed.

- *Off-Site Relocation.* In cases where these options are not viable, the best option is the donation of the sign to an organization who will maintain its preservation.[57]

It should be noted, however, that compliance with the suggestions in Preservation Brief 25 do not necessarily result in a less-than-significant impact. With respect to signage, the CEQA Guidelines, the Standards, and Preservation Brief 25 are used to evaluate whether there is a significant impact with respect to signage.

c. Project Features

The proposed Project is a four-story, 45-foot high and approximately 113,200 square foot commercial office building located over a two-level subterranean parking garage. The building may reach a height of an additional 14 feet to provide building continuity, attractive design, and screening for mechanical equipment. The proposed Project would result in a net increase of 100,565 gross square feet of floor area when compared to existing conditions and would require demolition of the structures and other improvements currently located on the site.

d. Analysis of Project Impacts

(1) 592 S. Fair Oaks (APN: 5720-001-002); 590 S. Fair Oaks (APN: 5720-001-003); 10 E. California Boulevard (APN: 5720-001-003)

Under the proposed Project, the three buildings on the project site: the former Monty's Steak House building at 592 S. Fair Oaks, and the buildings at 590 S. Fair Oaks and 10 E. California Boulevard, would be demolished. As indicated above, these buildings appear ineligible for listing in the National Register, California Register, and for local designation under City of Pasadena criteria and are not considered historic resources for the purposes of CEQA

[57] *Michael J. Auer "Preservation Brief 25: The Preservation of Historic Signs," The National Park Service, (Washington, DC: National Park Service, October 1991).*

compliance. Therefore, no impact to historic resources would result from the demolition of these buildings.

(2) 592 S. Fair Oaks Associated Signage (APN: 5720-001-002)

While the buildings on the site are not potentially eligible as historic resources, the two neon signs associated with 592 S. Fair Oaks Avenue, indicated above, appear eligible for local designation as historic signs under the City of Pasadena's Municipal Code, Section 17.62.040.D. One of these signs, a neon pole-mounted sign, is already designated as a Historic Sign by the City. The two signs have been have been found to be important historic resources at the local level. The two neon signs, circa 1941 and 1961, are associated Monty's Steak House. These signs are representative examples of roadside signage associated with the rise of automobile culture in Los Angeles during their respective eras. The signs exhibit integrity, retain their original locations and exhibit design, materials, and workmanship typical of their historic period. Both signs have a decades-long association with Monty's Steak House, a well-known bar and steak house that operated in Pasadena from 1951 to 2007.

Under the proposed project, the former Monty's Steak House building at 592 S. Fair Oaks, with which the two neon sign are associated, would be removed from the site and the buildings demolished. As these two signs are either already recognized as historical resources or appear eligible for local listing by the City, they are considered historical resources for the purposes of CEQA compliance. Demolition of the signs would result in a significant impact to historical resources.

The proposed Project includes a project design feature that would relocate the two neon signs to a suitable location such as a museum. Under the CEQA Thresholds, relocation of a resource is a significant impact if it would materially impair the significance of the resource. As indicated above, material impairment occurs if the character defining features of the resource are modified or destroyed so that the resource's eligibility for inclusion in the California Register or Local Register. Relocation of the signs, however, would not result in a change in the eligibility of the resources. As indicated in the Pasadena Historic Sign Ordinance, both signs are eligible for listing under Criterion 1.a. due to their demonstration of craftsmanship and design, use of material and means of illumination, and relative integrity relating to the period of significance.

After relocation of the signs, the signs would still retain all of these character-defining features and would remain eligible for listing under the Pasadena Historic Sign Ordinance. In addition, Preservation Brief 25 acknowledges that off-site relocation of a historic sign to a museum or other appropriate location or institution is preferable to destruction of the sign. The buildings for which the signs were built will be demolished as part of the proposed Project, making it difficult to maintain the signs as-is. Placement of the signs in the new Project is not

preferable due to the use of the new site as a science and technology office building; it would not be a restaurant or other like use and the signs would lose their historic context in the future Project. It would be difficult to design the site for relocation of the signs to the exterior when one of the signs indicates the availability of parking and the other would need a large, blank wall space for mounting. In addition, placement of the signs on-site but an interior location, while retaining their general vicinity, would fail to broaden the audience for the signs, as a limited number of users would view or experience the signs were they placed inside the new Project. The surrounding area has also changed significantly so that the context for the neon signs, in a neighborhood focused on biotechnology uses, is hardly compatible. It should also be noted that alteration of the signs to exhibit the new business name, which is also a preferred alternative under Preservation Brief 25, would likely result in a significant impact due to the change in historic craftsmanship and integrity of the signs related to the period of significance.

After consideration of the CEQA thresholds, the Standards, and Preservation Brief 25, relocation of the pole mounted sign~~s~~ to another suitable location, preferably within the City, where it would be exhibited in public view, and relocation of the wall mounted sign to a museum or other suitable institution, would be the most sensitive treatment of the signs after demolition of the Monty's building and implementation of the proposed Project, and would not result in a significant impact to the environment. As a result, no mitigation measures are required to reduce historic impacts to a less than significant level.

4. MITIGATION MEASURES

The neon and metal signage located at 592 S. Fair Oaks (APN: 5720-001-002), consisting of two signs, a pole-mounted sign and a wall-mounted sign, located along the property's primary (west) elevation, are considered historic resources under the CEQA Guidelines. As indicated in the Project Design Features for the Project, the signs would be relocated to a museum or other suitable institution. As indicated above, this relocation would not result in a significant impact to the signs. As a result, no mitigation measures are required to reduce historic impacts to a less-than-significant level. However, in an abundance of caution and to ensure that the context of the signage is preserved as well as the signs, the following mitigation measure addresses potential impacts to the signage to ensure a less than significant impact upon relocation:

Mitigation Measure B-1: Recordation and Photography. Prior to removal and relocation of the two signs, a pole-mounted sign and a wall-mounted sign presently situated at 592 S. Fair Oaks, a Historic American Buildings Survey (HABS) level III recordation shall be prepared. The signage shall be documented in large format black-and-white photographs and written narrative in accordance with HABS requirements. Completion of the HABS level III recordation of the existing signs on the project site should be

implemented prior to their removal and before commencement of construction activities. This documentation shall be prepared by a qualified architectural historian or historic architect and a photographer experienced in Historic American Building Survey (HABS) photography. The building's exterior showing the signs in place, as well as the property setting and contextual views shall be documented. Original archival prints shall be submitted to the California Office of Historic Preservation, the City of Pasadena Planning and Development Department and the Pasadena Public Library.

Mitigation Measure B-2: Signage Relocation. To assist the general public and interested parties in understanding the history of neon signage in Pasadena and to make these historic resources available to the public, the neon and metal signage of the circa 1951-1953 pole-mounted sign ~~and the wall-mounted sign~~ located at 592 S. Fair Oaks Avenue shall be preserved on site (if feasible) and, if it cannot be preserved on site, it is preferred that it remain in the City and be exhibited in a suitable location in public view. The wall mounted sign (circa 1961) may be donated to a suitable off-site repository or collection, preferably one located either within Pasadena or another location within the Los Angeles metropolitan area, such as the Museum of Neon Art in Los Angeles, which will ensure the continued preservation of the signage. To reduce potential damage to the signs during their relocation, the applicant shall obtain the services of a qualified conservator experienced in the removal and conservation of neon signage and who shall prepare and implement a relocation plan. Prior to the issuance of a demolition permit and any permits for the relocation of the signs, the relocation plan shall be reviewed by City of Pasadena Design & Historic Preservation staff.— The signs may be temporarily relocated in an effort to protect their integrity if deemed necessary and with the approval of City Historic Preservation staff.

5. CUMULATIVE IMPACTS

The analysis of cumulative impacts on historic resources involved an evaluation of whether the cumulative impacts of the proposed Project and related projects in the area, when taken as a whole, would substantially diminish the number of existing resources within the historic context. Three buildings, addressed at 592 S. Fair Oaks (APN: 5720-001-002), 590 S. Fair Oaks (APN: 5720-001-003), and 10 E. California Boulevard (APN: 5720-001-003), which are located on the site of the proposed Project would be demolished as a result of the proposed Project. These buildings would not contribute to the loss of any historic buildings with similar historical or architectural context, thus the project would not have a cumulatively considerable impact in this regard and cumulative impacts associated with these buildings would be less than significant.

The two examples of neon signage located at 592 S. Fair Oaks are the only resources on the site that appear potentially eligible as historic resources, pursuant to CEQA. These resources are historically significant for their association with Monty's Steak House. Their relocation would not contribute to the loss of properties with a similar historic context. There appear to be no projects within the general vicinity of the proposed Project with a similar historical or architectural context or associations such that, in combination with the proposed Project, their demolition of historic resources or signage would result in a cumulatively significant impact. Because of the unique nature of historic resources and the level of local, State, and federal regulatory requirements applicable to historic resources, the cumulative effects of individual projects will be addressed on a case-by-case basis. Thus, the cumulative impacts on historic resources associated with the signage would be less than significant.

6. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Based on a historic survey, the pole-mounted sign and the wall-mounted sign located at 592 S. Fair Oaks have each been identified as potential historic resources. However, the building with which they are associated, Monty's Steak House, is a common and undistinguished example of a vernacular modern commercial building and was found ineligible. The historic significance and current appearance of the signs within their local context shall be recorded through HABS level III documentation prior to the removal and relocation as part of the Proposed Project. Relocation of the signs and implementation of a HABS photography plan would ensure that direct impacts to these historic resources would be reduced to a less than significant level.

1. INTRODUCTION

The purpose of this section is to evaluate potential impacts on paleontological, archaeological, and Native American cultural resources that could occur with implementation of the proposed Project. This section discusses the environmental setting, including the regulatory framework and sensitivity of the site for encountering resources, identifies potential impacts, and provides mitigation measures to address significant impacts, The analyses in this section are based on records searches conducted through paleontological, archaeological, and Native American record holding institutions, literature reviews, and historic map analysis. Specifically, a paleontological records search was commissioned through the Natural History Museum of Los Angeles County (LACM) and an archaeological records search was conducted by PCR staff archaeologists at the California Historical Resources Information System South Central Coastal Information Center (CHRIS-SCCIC) at California State University, Fullerton. The results of these record searches are included in Appendix C-2 of this EIR.

As further described in Section II, Project Description, of this EIR, the proposed Project includes demolition of existing on-site structures and surface parking areas in order to develop a four-story, 113,200 gross square foot office building with 255 parking spaces provided within a two-level subterranean parking garage.

Paleontology is a branch of geology that studies the life forms of the past, especially prehistoric life forms, through the study of plant and animal fossils. Paleontological resources represent a limited, non-renewable, and impact-sensitive scientific and educational resource. As defined in this section, paleontological resources are the fossilized remains or traces of multi-cellular invertebrate and vertebrate animals and multi-cellular plants, including their imprints from a previous geologic period. Fossil remains such as bones, teeth, shells, and leaves are found in the geologic deposits (rock formations) where they were originally buried. Paleontological resources include not only the actual fossil remains, but also the collecting localities, and the geologic formations containing those localities.

Archaeology is the recovery and study of material evidence of human life and culture of past ages. Over time, this material evidence becomes buried, fragmented or scattered or otherwise hidden from view. It is not always evident from a field survey if archaeological resources exist within a project site. Thus, the possible presence of archaeological materials must often be determined based upon secondary indicators, including the presence of geographic,

vegetative, and rock features which are known or thought to be associated with early human life and culture, as well as knowledge of events or material evidence in the surrounding area. In urban areas such as the project site and environs, archaeological resources may include both prehistoric remains and remains dating to the historical period, defined for the purposes of CEQA as remains 45 years old or older.

2. ENVIRONMENTAL SETTING

a. Regulatory Framework

Numerous laws and regulations require federal, State, and local agencies to consider the effects of a proposed project on cultural resources. These laws and regulations stipulate a process for compliance, define the responsibilities of the various agencies proposing the action, and prescribe the relationship among other involved agencies (e.g., State Historic Preservation Office and the Advisory Council on Historic Preservation). The National Historic Preservation Act (NHPA) of 1966, as amended; the California Environmental Quality Act (CEQA); and the California Register of Historical Resources, Public Resources Code (PRC) 5024, are the primary federal and State laws governing and affecting preservation of historic resources of national, State, regional, and local significance. Other relevant regulations at the local level include the Conservation Element of the City's General Plan. A description of the applicable laws and regulations is provided in the following paragraphs.

(1) Federal Level

(a) Paleontological Resources

Federal protection for significant paleontological resources would apply to the project if construction or other related impacts occurred on federal owned or managed lands. Federal legislative protection for paleontological resources stems from the Antiquities Act of 1906 (PL 59-209; 16 United States Code 431 et seq.; 34 Stat. 225), which calls for protection of historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest on federal lands. Because the project site is on privately owned land, this federal statute is not applicable.

(b) Archaeological Resources

(i) National Register of Historic Places

First authorized by the Historic Sites Act of 1935, the National Register of Historic Places (National Register) was established by the NHPA of 1966, as "an authoritative guide to be used by federal, State, and local governments, private groups and citizens to identify the Nation's historic resources and to indicate what properties should be considered for protection from destruction or impairment."[58] The National Register recognizes properties that are significant at the national, State and local levels.

To be eligible for listing in the National Register, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must meet one or more of the following four established criteria:[59]

a. Are associated with events that have made a significant contribution to the broad patterns of our history;

b. Are associated with the lives of persons significant in our past;

c. Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

d. Have yielded, or may be likely to yield, information important in prehistory or history.

Unless the property possesses exceptional significance, it must be at least 50 years old to be eligible for National Register listing.[60]

In addition to meeting the criteria of significance, a property must have integrity. Integrity is understood as "the ability of a property to convey its significance."[61] The National

[58] *Code of Federal Regulations (CFR), 36 Section 60.2.*

[59] *U.S. Department of the Interior, National Park Service, National Register Bulletin: How to Apply the National Register Criteria for Evaluation (Washington, DC: National Park Service, 1995).*

[60] *Exceptional Significance as defined by National Register Criteria Consideration G: Properties That Have Achieved Significance Within the Past Fifty Years. National Register Bulletin: How to Apply the National Register Criteria for Evaluation (Washington, DC: National Park Service, 1995).*

Register recognizes seven qualities that, in various combinations, define integrity. To retain historic integrity a property must possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance.[62] The seven factors that define integrity are location, design, setting, materials, workmanship, feeling, and association.

(2) State Level

(a) Paleontological Resources

Paleontological resources are afforded protection by environmental legislation set forth under CEQA. Appendix G (part V) of the CEQA Guidelines provides guidance relative to significant impacts on paleontological resources, stating that "a project will normally result in a significant impact on the environment if it will …disrupt or adversely affect a paleontologic resource or site or unique geologic feature, except as part of a scientific study." Section 5097.5 of the PRC specifies that any unauthorized removal of paleontological remains is a misdemeanor. Further, the California Penal Code Section 622.5 sets penalties for damage or removal of paleontological resources.

(b) Archaeological Resources

The State implements the NHPA through its statewide comprehensive cultural resources survey and preservation programs. The California Office of Historic Preservation (OHP), as an office of the California Department of Parks and Recreation, implements the policies of the NHPA on a statewide level. The OHP also maintains the California Historic Resources Inventory. The State Historic Preservation Officer is an appointed official who implements historic preservation programs within the State's jurisdictions.

(c) Sacred Lands File Search and Native American Consultation

The State NAHC is responsible for conducting Sacred Lands File (SLF) searches to assist in the identification of Native American or prehistoric resources that may be adversely effected by proposed projects. The SLF refers to the inventory of Native American or prehistoric resources that the NAHC maintains. The primary source of information for the SLF is California Native American individuals and groups. They provide valuable locational information to the NAHC regarding resources that may not otherwise be shared with the CHRIS-SCCIC, other

[61] *National Register Bulletin 15, p. 44.*

[62] *Ibid.*

regional information centers, or other archives that maintain records on Native American or prehistoric resources. As a result, it has been established as an industry-wide standard to conduct SLF searches for all projects subject to CEQA to ensure that an exhaustive effort has taken place to identify Native American or prehistoric resources. Moreover, the NAHC recommends follow-up contact with Native American groups and/or individuals identified by the NAHC as having affiliation with the study area vicinity. NAHC recommended procedures for follow-up contact includes distribution of a project description, location map, and request for information about Native American resources that may be affected by the proposed Project. Results of the follow-up contact provide information regarding the presence of any locations in the vicinity of the study area that are culturally sensitive to Native Americans that may not be included in the SLF. Native American burials in California are protected by several statutes from *California Public Resources Code Chapter 1.75 Section 5097.9 – 5097.991 and Section 7050 of the Health and Safety Code.*

(d) California Register of Historical Resources

Created by Assembly Bill 2881 which was signed into law on September 27, 1992, the California Register of Historical Resources (California Register) is "an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change."[63] The criteria for eligibility for the California Register are based upon National Register criteria.[64] Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register of Historic Places.[65]

To be eligible for the California Register of Historical Resources, a pre-historic or historic property must be significant at the local, state, and/or federal level under one or more of the following criteria:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;

[63] *California Public Resources Code Section 5024.1(a).*

[64] *California Public Resources Code § 5024.1(b).*

[65] *California Public Resources Code § 5024.1(d).*

- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

- Has yielded, or may be likely to yield, information important in prehistory or history.

A resource eligible for the California Register must meet one of the criteria of significance described above and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. It is possible that a historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the California Register.

Additionally, the California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed on the National Register of Historic Places and those formally Determined Eligible for the National Register of Historic Places.

- California Registered Historical Landmarks from No. 770 onward.

- Those California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion on the California Register.

Other resources that may be nominated to the California Register include:

- Historical resources with a significance rating of Category 3 through 5.[66]

- Individual historical resources.

- Historical resources contributing to historic districts.

- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone.

[66] *Those properties identified as eligible for listing in the National Register of Historic Places, the California Register of Historical Resources, and/or a local jurisdiction register.*

(e) California Environmental Quality Act

CEQA is the principal statute governing environmental review of projects occurring in the State. CEQA requires lead agencies to determine if a proposed project would have a significant effect on archaeological resources (Public Resources Code Sections 21000 et seq.). As defined in Section 21083.2 of the PRC a "unique" archaeological resource is an archaeological artifact, object, or site, about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

In addition, CEQA Guidelines Section 15064.5 broadens the approach to CEQA by using the term "historical resource" instead of "unique archaeological resource." If a lead agency determines that an archaeological site is a historical resource, the provisions of §21084.1 of the PRC and §15064.5 of the Guidelines apply. If an archaeological site does not meet the criteria for a historical resource contained in the Guidelines, then the site is to be treated in accordance with the provisions of PRC §21083.2, which refer to a unique archaeological resource. The Guidelines note that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. (Guidelines §15064.5(c)(4)).

(3) Local Level—City of Pasadena

(a) Paleontological Resources

As indicated in the EIR prepared to address the Land Use and Mobility Elements of the General Plan, it is the City's policy is to identify and protect significant paleontological sites and/or resources known to exist or identified during land development, demolition or property modification activities. If land development occurs within a potentially significant paleontological area, the developer "shall conduct a pre-excavation field assessment and literature search to determine the potential for disturbance of paleontological and/or archaeological resources. If warranted, grading and other earthmoving shall be monitored by a qualified professional who, if necessary, shall undertake salvage and curation." If significant

resources are discovered, authorities must be notified and the designated paleontologist may cease construction activity in that portion of the project site. This cessation allows time for the assessment, removal or protection of the paleontological resources. Prior discoveries of paleontological resources have been limited to projects within the two sensitive geologic formations, Topanga Formation and Late Miocene Marine Monterey Formation. However, like archaeological resources, the potential discovery of new resources has not been ruled out by the City.[67]

(b) Archaeological Resources

Based on analysis provided in the EIR for the City's General Plan Land Use and Mobility Elements, infill development in already developed areas is not anticipated to result in the uncovering of archaeological resources. However, deeper excavations (i.e. parking facilities) could unearth archaeological resources. Also, limited development activity in the hillside areas could disturb resources as well, given the former presence of indigenous people in the region. If such excavation or grading during development uncovers archaeological resources, developers will be required to comply with CEQA Section 21083.2 and CEQA Guidelines Section 15064.5 regarding the discovery sensitive archaeological resources. Excavation/grading activity will have to be temporarily suspended to allow for an assessment of the resource and appropriate mitigation. The EIR indicates that compliance with these existing regulations, including CEQA requirements for individual development projects, will result in less than significant impacts on a citywide basis. [68]

b. Existing Conditions

(1) Historical Background

Prehistoric archaeological resources identified in the greater urban Los Angeles area include remains with very old dates, such as the Los Angeles Man remains recovered in 1936 by Work Progress Administration (WPA) workers digging a storm drain along the Los Angeles River. Radiocarbon dates have indicated an age greater than 20,000 years old, although small amount of collagen tested from the remains makes the date suspect. The remains were found in association with mammoth bones, however, so the remains can be considered Pleistocene or earliest Holocene in age.[69] One of the oldest sets of securely dated human remains discovered in North America, with an age between 11,000 and 10,000 years ago, were identified at Arlington

[67] *Draft Environmental Impact Report, Section 3.7- Cultural Resources, City of Pasadena*

[68] *Ibid.*

[69] *Moratto, Michael (1984) California Archaeology. Academic Press, New York.*

Springs on Santa Rosa Island, which is located approximately 100 miles directly west of the project site.[70] In the project vicinity, prehistoric remains are most likely to represent past occupation by the Gabrielino.

The Gabrielino were one of the most populous ethnic nationalities of aboriginal southern California. Gabrielino territory included the Los Angeles Basin, the coast of Aliso Creek in Orange County to the south to Topanga Canyon in the north, the four southern Channel Islands, and watersheds of the Los Angeles, San Gabriel, and Santa Ana Rivers. Their name is derived from their association with Mission San Gabriel Archangel.

The Gabrielino were not the first inhabitants of the Los Angeles Basin, but arrived around 500 B.C. The language of the Gabrielino people has been identified as a Cupan language within the Takic family, which is part of the larger Uto-Aztecan language family. Uto-Aztecan speakers arrived in southern California in what is known as the Shoshonean migration, which current archaeological and linguistic evidence suggests originated in of the Great Basin and displaced the already established Hokan speakers. The Gabrielino were advanced in their culture, social organization, religious beliefs, and art and material production. Class differentiation, inherited chieftainship, and intervillage alliances were all components of Gabrielino society. At the time of European contact, the Gabrielino were actively involved in trade using shell and beads as currency. The Gabrielino were known for excellent artisanship in the form of pipes, ornaments, cooking implements, inlay work, and basketry. The Gabrielinos evolved an effective economic system which managed food reserves (storage and processing), exchanged goods, and disturbed resources. Otherwise, few specifics are known of Gabrielino lifeways. Data collected and presented by A. L. Kroeber in 1925 indicate that homes were made of tule mats on a framework of poles, but size and shape have not been recorded. Basketry and steatite vessels were used rather than ceramics; ceramics became common only toward the end of the mission period in the nineteenth century. The Gabrielino held some practices in common with other groups in southern California, such as the use of jimsonweed in ceremonies as did the Luiseño and Juaneño, but details of the practices and the nature of cultural interaction between the Gabrielino and other groups in southern California are unknown.

Population estimates are based solely on estimates gleaned from historical reports. There were possibly more than 100 mainland villages, Spanish reports suggested village populations ranged from 50 to 200 people.[71] Prior to actual Spanish contact the Gabrielino population had

[70] *Rick, Torben C., Jon M. Erlandson, René L. Vellanoweth, and Todd J. Braje (2005) From Pleistocene Mariners to Complex Hunter-Gatherers: The Archaeology of the California Channel Islands. Journal of World Prehistory 19:169-228.*

[71] *Bean, L. J. and C. R. Smith (1978) Gabrielino. Handbook of North American Indians, Vol. 8, California, edited by R. F. Heizer, pp. 538-549. Smithsonian Institution, Washington, D.C.*

been decimated by diseases.[72] The diseases were probably European diseases spread via coastal stopovers by early Spanish maritime explorers.

Due to the relatively long history of urban development in the project vicinity, the full extent and density of Gabrielino occupation of the immediate site vicinity is unknown.

The historic use of the vicinity is discussed in Section IV.B.1, Historic Resources, of this EIR. In brief review, European presence in the project vicinity began in 1769 with the Portola expedition. Mission San Gabriel, located approximately three and one-half miles southeast of the project site, was established in 1771, and El Pueblo de La Reina de Los Angeles was established in 1781 approximately seven miles southwest of the project site. Residential development of the immediate project area was underway by the late nineteen century, with a transition to predominantly commercial uses by the 1950s.

(2) Potential for Previously Identified Resources within the Project Site

(a) Paleontological Resources

(i) Methods

In order to determine the potential presence of paleontological resources on-site, a paleontological resources records search was commissioned through the Vertebrate Paleontology Section of the Natural History Museum of Los Angeles County (LACM) on October 27, 2008. The objective of the record search was to determine the geological formations underlying the project site, whether any paleontological localities have previously been identified within the project site or in the same or similar formations near the site, and the potential for excavations associated with the site to encounter paleontological resources.

(ii) Results

Results of the record search indicate that the project site is underlain by surficial deposits of the younger Quaternary Alluvium, derived either as fan deposits from the mountains to the northwest and north or as fluvial deposits from the Arroyo Seco drainage immediately to the west.[73] These deposits typically do not contain significant vertebrate fossils, at least in the

[72] *Tac, Pablo (1930) Conversion de los San Luisenos de Alta California. Proceedings of the 23rd International Congress of Americanists, New York.*

[73] *Paleontological Records Search for the Proposed Cal Fair Oaks Project, in the City of Pasadena, Los Angeles County. Prepared by Samuel A. McLeod, Ph.D., Vertebrate Paleontology Section, Natural History Museum of Los Angeles County, October 29, 2008, for PCR Services Corporation, Santa Monica, CA.*

uppermost layers. However, at unknown, but possibly relatively shallow depths, there are older Quaternary Alluvium deposits which are very likely to contain significant vertebrate fossils. The closest vertebrate fossil locality in these older Quaternary deposits is LACM (CIT) 342, located 3.5 miles west of the project site, near the intersection of Eagle Rock Boulevard and York Boulevard. This locality produced fossil specimens of turkey (*Parapavo californicus*), and mammoth (*Mammuthus*), at depths of 14 feet below the surface. The fossil turkey specimen from locality LACM (CIT) 342 was published in the scientific literature by L.H. Miller in 1942 (A New Fossil Bird Locality. Condor, 44(6):283-284) and the mammoth specimen was a rare, nearly complete skeleton and was published in the scientific literature by V.L. Roth in 1984 (How Elephants Grow: Heterochrony and the Calibration of Developmental Stages in Some Living and Fossil Species. Journal of Vertebrate Paleontology, 4(1):126-145). As a result of these findings, the LACM concludes that the older Quaternary Alluvium deposits located within the project site are likely to contain significant vertebrate fossils. Therefore, the potential to encounter buried paleontological resources within these deposits on the project site is considered high.

(b) Archaeological Resources

(i) Methods

In order to determine the potential presence of prehistoric and historical-period archaeological resources on-site, a cultural resource records search was conducted through the California Historical Resources Information System South Central Coastal Information Center (CHRIS-SCCIC) at California State University, Fullerton, historical-period maps of the Project site and vicinity were analyzed, and Project-specific geotechnical information was reviewed.

The CHRIS-SCCIC record search was conducted by a PCR staff archaeologist on November 13, 2008. The objectives of this search were to review previous cultural resource investigations and any previously recorded archaeological resources within the project site or within a half-mile radius of the site. The record search also included review of the National Register of Historic Places (NR), California Register of Historical Resources (CR), California Points of Historical Interest (CPHI), California Historical Landmarks (CHL), and the California State Historic Resources Inventory (HRI).

Review of historic maps included analysis of Sanborn Fire Insurance maps for the Project site and vicinity. Years for which Sanborn maps for the project site were produced include 1903,

1931, and 1951. In addition, the geotechnical study for the site, prepared by GeoDesign, Inc. was reviewed.[74]

(ii) Results

Results of the cultural resource records search indicate that the project site has not been previously surveyed for cultural resources. As a result, no known resources have been identified on the site. Eleven cultural resource studies have been conducted within a half-mile radius of the project site. The studies were conducted from 1981 to 2007 and collectively encompass approximately 30 percent of the one-half mile search radius. These investigations vary widely in terms of size and scale; none included subsurface investigations. Four of the investigations were linear surveys of transit corridors that range in length from less than one mile up to 15 miles. Four of the reports are telecommunications cell tower locations that are commonly less than one-quarter acre in size, and in the urban environment are usually attached to existing structures. None of these previous investigations identified archaeological resources on or within a half-mile radius of the project site. While 13 historic properties listed in the National Register have been identified within a half-mile radius of the site, none of these properties are of archaeological nature.

The geotechnical analysis of the project site included seven structural geology borings to depths ranging between 20 and 76 feet below the modern ground surface. All sample borings took place in parking lots and the asphalt surfaces were in variable condition. Five of the borings exhibited mechanically re-deposited fill to a maximum depth of 2.5 feet. The native soils beneath the fill layers consist of alternating layers of loose to medium dense, fine to medium sand with some gravel and stiff to very stiff silt intermixed with fine sand.

Results of the Sanborn Map analysis indicate that there is potential for the project site to preserve historical-period archaeological resources, such as building foundations and associated trash deposits. A review of map data by year is as follows:

The 1903 Sanborn map shows a total of four residential dwellings within the project site and associated structures or outbuildings. They are located along the northern portion of the project site south of California Boulevard. The map from 1931 depicts five new structures including a bakery, a laundry facility, and a residential dwelling. The buildings are located in the northern half of the project site and seem to have replaced the previous dwellings that were

[74] *Report of Geotechnical Engineering Services: Proposed California and Fair Oaks Office Building, Southeast Corner of California Boulevard and Fair Oaks Avenue, Pasadena, California. Prepared by GeoDesign, Inc. July 28, 2008 for Council Rock Partners.*

depicted on the 1903 map. According to the 1951 Sanborn map, one additional building is depicted along Edmondson Alley.

Review of the present-day distribution of buildings and development on the site indicates that only one building along South Fair Oaks Avenue remains from the Sanborn maps. The remaining areas of the site are devoted to surface parking. The existing structures located on the project site have been evaluated with respect to historic resource criteria in Section IV.B.1, Historic Resources. Although there is potential that intact resources may exists as result of the historic land use of the project site, the potential to encounter these resources during implementation of the project is low to moderate. This is a result of the heavy grading and other ground-disturbing activities that have occurred in the past that likely would have displaced any intact resources that existed prior to disturbance.

(3) Sacred Lands File Search and Native American Consultation

The NAHC of California was established to provide protection to Native American burials from vandalism and inadvertent destruction, provide a procedure for the notification of most likely descendants regarding the discovery of Native American human remains and associated grove goods, bring legal action to prevent severe and irreparable damage to sacred shrines, ceremonial sites, sanctified cemeteries and place of worship on public property, and maintain an inventory of sacred places.

On October 27, 2008, a Sacred Lands File (SLF) records search was commissioned for the site through the NAHC. The letter included information such as study area location and a brief description of the proposed Project. On November 11, 2008 NAHC responded, "The SLF failed to indicate the presence of Native American cultural resources in the immediate project area." The letter included a list of five Native American groups affiliated with the project vicinity. The NAHC letter can be found in Appendix C-2 of this EIR. On November 12, 2008 letters of inquiry were sent via certified mail to the listed contacts. The letters included a project description and location map and requested information the contacts may have about the potential for the proposed Project to affect Native American or prehistoric resources. On February 19, PCR received one response from Sam Dunlap, Tribal Secretary of the Gabrielino Tongva Nation. Per Mr. Dunlap, the project site is in close proximity (1 mile east) of Arroyo Seco River which was exploited prehistorically for its food and water resources. This suggests that the project site has an "increased potential" to contain buried prehistoric or Native American resources. Mr. Dunlap also mentioned that a Native American burial was encountered several feet below the ground surface approximately 1.5 miles southwest of the project site along Arroyo Seco River. Mr. Dunlap's response letter and PCR's follow-up phone call log can be found in Appendix C-2 of this EIR. PCR did not receive any other response from any of the other Native American individuals or organizations.

3. ENVIRONMENTAL IMPACTS

a. Methodology

(1) Paleontological Resources

To develop a baseline paleontological resources inventory of the project site and surrounding area and to assess the potential paleontological productivity of each stratigraphic unit present, the published and available unpublished geological and paleontological literature was reviewed, as described above; and stratigraphic and paleontologic inventories were compiled, synthesized, and evaluated by the staff of the LACM. These methods are consistent with the Society of Vertebrate Paleontology (SVP) guidelines for assessing the importance of paleontological resources in areas of potential environmental effect. Due to the developed nature of the project site and lack of visible native ground surface, no paleontological field survey was undertaken.

(2) Archaeological Resources

As described in Section IV.B.1, Historic Resources, PCR historians confirmed the absence of exposed native ground surface on the project site, therefore, no archaeological field survey was undertaken. The primary basis for the analysis was the record search described above which was conducted to assess the potential for the project site to contain buried archaeological and Native American resources.

b. Thresholds of Significance

Appendix G of the CEQA Guidelines provides a checklist of questions to assist in determining whether a project would have a significant impact related to various environmental issues including paleontological and archaeological resources.

(1) Paleontological Resources

According to the CEQA Guidelines, impacts to paleontological resources may have a significant and adverse impact on paleontological resources if the proposed Project would:

- *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.*

(2) Archaeological Resources

According to the CEQA Guidelines, impacts to archaeological resources may have a significant adverse impact on archaeological resources if the proposed Project would:

- *Cause a substantial adverse change in the significance of an archaeological resource as defined in CEQA Guidelines Section 15064.5*
- *Disturb any human remains, including those interred outside of formal cemeteries*

c. Project Design Features

Implementation of the project would require demolition of the existing buildings and clearing of the entire site in and preparation for the construction of a four-story, 45-foot high office building with 255 parking spaces located within a two level subterranean parking garage. It is anticipated that approximately 36,560 cubic yards of soil would be hauled away during excavation of the site. Average depth of excavation would be approximately 20 feet below grade. Nearly the entire site would be graded during excavation.

d. Analysis of Project Impacts

(1) Paleontological Resources

The project site is located on fill material ranging in depth from four inches to 2.5 feet below the modern surface in most areas. This fill most likely extends deeper below the ground surface underneath the existing buildings, which were not included in the geotechnical investigations. Although the site has been previously disturbed through grading and/or development, there is potential to directly or indirectly destroy a unique paleontological resource or unique geologic feature. The paleontological records search indicates that excavations into the older Quaternary Alluvium deposits within the project site are likely to contain significant vertebrate fossils. The identification of fossil specimens of turkey (*Parapavo californicus*) and mammoth (*Mammuthus*) at depths of 14 feet below the surface in these deposits nearby demonstrates that significant fossils have been unearthed in a heavily urbanized nearby area. Thus, construction of the project, primarily excavation associated with the parking structure at depths averaging 20 feet, has the potential to result in significant impacts associated with the permanent loss of, or loss of access to, a paleontological resource. Thus, impacts to paleontological resources are considered potentially significant and mitigation measures are provided below.

(2) Archaeological Resources

Results of the records search at the CHRIS-SCCIC indicate that no prehistoric archaeological sites were identified on or within a one-half mile radius of the project site. The Sanborn maps of the project area suggest that the leveling fill for the project site may have been laid down by 1903 or slightly earlier. Therefore, there is a possibility that buried prehistoric remains have been sealed since this time. In addition, given the historic land use of the project site, the potential to encounter historic period resources also exists. However, the project site has been intensely urbanized and developed for over 100 years and, as a result, it is likely that surficial and buried archaeological resources (both prehistoric and historic period resources) that may have existed prior to the disturbances are likely to have been displaced. Thus, impacts to archaeological resources are considered less than significant. Nonetheless, in the event archaeological resources are accidentally encountered during project implementation, mitigation measures are recommended below.

(3) Sacred Lands File Search and Native American Consultation

Results of the Sacred Lands File search and the records search at the CHIRS-SCCIC failed to indicate Native American resources in or adjacent to the project site. On November 12, 2008, letters of inquiry were sent via certified mail to the listed contacts. The letters included a project description and location map and requested information the contacts may have about the potential for the proposed Project to affect Native American or prehistoric resources. On February 19, PCR received one response from Sam Dunlap, Tribal Secretary of the Gabrielino Tongva Nation. Mr. Dunlap recommended that "an archaeological and Native American monitoring component be a necessary mitigation measure during the construction phase of the proposed project." Mr. Dunlap recommended this measure since the project site is in close proximity (1 mile east) of Arroyo Seco River which was exploited prehistorically for its food and water resources. This suggests that the project site has an "increased potential" to contain buried prehistoric or Native American resources. Mr. Dunlap also mentioned that a Native American burial was encountered several feet below the ground surface approximately 1.5 miles southwest of the project site along Arroyo Seco River. PCR followed-up with a phone call to Mr. Dunlap on February 26 and explained that his recommendation would be incorporated into the EIR. Mr. Dunlap's response letter and PCR's follow-up phone call log can be found in Appendix C-2 of this EIR. Thus, if Native American resources are accidentally encountered during project implementation, the mitigation measures recommended below would reduce potentially significant impacts to less than significant levels.

4. MITIGATION MEASURES

a. Paleontological Resources

The following mitigation measures are required to reduce potentially significant impacts on paleontological resources:

Mitigation Measure B-3: A qualified paleontologist shall attend a pre-grade meeting and develop a paleontological monitoring program to cover excavations in the event they occur into the older Quaternary Alluvium. A qualified paleontologist is defined as a paleontologist meeting the criteria established by the Society for Vertebrate Paleontology. If excavation into Quaternary Alluvium occurs, monitoring shall consist of visually inspecting fresh exposures of rock for larger fossil remains and, where appropriate, collecting wet or dry screened sediment samples of promising horizons for smaller fossil remains. If it is determined that excavation will not encounter Quaternary Alluvium, no further measures need be taken. The frequency of monitoring inspections shall be based on the rate of excavation and grading activities, the materials being excavated, and if found, the abundance and type of fossils encountered.

Mitigation Measure B-4: If a fossil is found, the paleontologist shall be allowed to temporarily divert or redirect grading and excavation activities in the area of the exposed fossil to facilitate evaluation and, if necessary, salvage.

Mitigation Measure B-5: At the paleontologist's discretion and to reduce any construction delay, the grading and excavation contractor shall assist in removing rock samples for initial processing.

Mitigation Measure B-6: Any fossils encountered and recovered shall be prepared to the point of identification and catalogued before they are donated to their final repository.

Mitigation Measure B-7: Any fossils collected shall be donated to a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County. Accompanying notes, maps, and photographs shall also be filed at the repository.

Mitigation Measure B-8: If fossils are found following completion of the above tasks the paleontologist shall prepare a report summarizing the results of the monitoring and salvaging efforts, the methodology used in these efforts, as well as a description of the fossils collected and their significance. The report shall be submitted by the Project Applicant to the lead agency, the Natural

History Museum of Los Angeles County, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the Project and required mitigation measures.

b. Archaeological and Native American Resources

Although impacts on archaeological and Native American resources are considered less than significant, the following mitigation measures are recommended in the event such resources are encountered during project implementation:

Mitigation Measure B-9: If archaeological resources are encountered during project implementation, an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards (the "Archaeologist") shall be immediately notified and retained by the Project Applicant and approved by the City to oversee and carryout the mitigation measures stipulated in this EIR.

Mitigation Measure B-10: The qualified archaeologist should coordinate with the Project Applicant as to the immediate treatment of the find until a proper site visit and evaluation is made by the archaeologist. The archaeologist shall be allowed to temporarily divert or redirect grading or excavation activities in the vicinity in order to make an evaluation of the find and determine appropriate treatment. Treatment will include the goals of preservation where practicable and public interpretation of historic and archaeological resources. All cultural resources recovered will be documented on California Department of Parks and Recreation Site Forms to be filed with the CHRIS-SCCIC. The archaeologist shall prepare a final report about the find to be filed with Project Applicant, the City, and the CHRIS-SCCIC, as required by the California Office of Historic Preservation. The report shall include documentation and interpretation of resources recovered. Interpretation will include full evaluation of the eligibility with respect to the National and California Register of Historic Places and CEQA. The report shall also include all specialists' reports as appendices. The Lead Agency shall designate repositories in the event that significant resources are recovered. The archaeologist shall also determine the need for archaeological and Native American monitoring for any ground-disturbing activities thereafter. If a need is warranted, the archaeologist will develop a monitoring program in coordination with a Native American representative (if there is potential to encounter prehistoric or Native American resources), the Project Applicant, and the City. The monitoring program will also include a treatment plan for any additional resources encountered and a final report on findings.

Mitigation Measure B-11: If human remains are encountered unexpectedly during construction excavation and grading activities, State Health and Safety Code

Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the NAHC. The NAHC will then identify the person(s) thought to be the Most Likely Descendent of the deceased Native American, who will then help determine what course of action should be taken in dealing with the remains. Preservation of the remains in place or Project design alternatives shall be considered as possible courses of action by the Project Applicant, the City, and the Most Likely Descendent.

5. LEVEL OF SIGNIFICANCE AFTER MITIGATION

a. Paleontological Resources

With implementation of the mitigation measures above, potentially significant impacts to paleontological resources would be reduced to a less than significant level.

b. Archaeological Resources

Potential impacts on archaeological resources were determined to be less than significant. Nonetheless, if such resources are encountered unexpectedly, implementation of the mitigation measures recommended above would reduce impacts on archaeological and Native American resources to a less than significant level.

6. CUMULATIVE IMPACTS

Cumulative impacts associated with archaeological resources for related projects are considered less than significant since the majority of related projects would be required to comply with the Public Resources Code Section 21083.2 or Public Resources Code Section 21084.1 and CEQA Guidelines Section 15064.5. Furthermore impacts on archaeological resources associated with the proposed Project are considered less than significant and would not be cumulatively considerable. Therefore, cumulative impacts on archaeological resources associated with the project would be less than significant.

In addition, with regard to paleontological resources, it is likely that the majority of related projects in the area would be subject to environmental review and if the potential for significant impacts on paleontological resources is identified, mitigation measures similar to those proposed for the project would be implemented. With implementation of mitigation measures by related projects and the proposed Project, the impacts of the project on paleontological resources would not be considerable and cumulative impacts would be less than significant.

IV. ENVIRONMENTAL IMPACT ANALYSIS
C. NOISE

1. INTRODUCTION

This section analyzes potential noise and vibration impacts associated with the proposed Project. The analysis describes the existing noise environment within the project area, estimates future noise and vibration levels at surrounding land uses resulting from construction and operation of the project, identifies the potential for significant impacts, and provides, if required, mitigation measures to address significant impacts. The analysis also evaluates the compatibility of the project's proposed office use with the site's future noise environment. In addition, an evaluation of the potential cumulative noise impacts of the project and related projects is also provided. Noise calculation and data sheets for the project are included in Appendix D of this EIR.

2. ENVIRONMENTAL SETTING

a. Noise and Vibration Basics

(1) Noise

Noise is most often defined as unwanted sound. Although sound can be easily measured, the perceptibility of sound is subjective and the physical response to sound complicates the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as "noisiness" or "loudness." Sound pressure magnitude is measured and quantified using a logarithmic ratio of pressures, the scale of which gives the level of sound in decibels (dB). The human hearing system is not equally sensitive to sound at all frequencies. Therefore, to approximate this human, frequency-dependent response, the A-weighted filter system is used to adjust measured sound levels. The A-weighted sound level is expressed in "dBA." This scale de-emphasizes low frequencies to which human hearing is less sensitive and focuses on mid- to high-range frequencies.

Although the A-weighted scale accounts for the range of people's response, and therefore, is commonly used to quantify individual event or general community sound levels, the degree of annoyance or other response effects also depends on several other perceptibility factors. These factors include:

- Ambient (background) sound level;

- Magnitude of sound event with respect to the background noise level;
- Duration of the sound event;
- Number of event occurrences and their repetitiveness; and
- Time of day that the event occurs.

People judge the relative magnitude of sound sensation by subjective terms such as "loudness" or "noisiness." That is, a change in sound level of 3 dB is considered "just perceptible," a change in sound level of 5 dB is considered "clearly noticeable, and a change in 10 dB is recognized as "twice as loud".[1]

In an outdoor environment, sound levels attenuate through the air as a function of distance. Such attenuation is called "distance loss" or "geometric spreading" and is based on the source configuration, point source or line source. For a point source, the rate of sound attenuation is 6 dB per doubling of distance from the noise source. For example, a sound level of 50 dBA at a distance of 25 feet from the noise source would attenuate to 44 dBA at a distance of 50 feet. For a line source, such as a constant flow of traffic on a roadway, the rate of sound attenuation is 3 dB per doubling of distance.[2] In addition, structures (e.g. buildings and solid walls) and natural topography (e.g. hills) that obstruct the line-of-sight between a noise source and a receptor further reduce the noise level if the receptor is located within the "shadow" of the obstruction, such as behind a sound wall. This type of sound attenuation is known as "barrier insertion loss." If a receptor is located behind the wall but still has a view of the source (i.e., line-of-sight not fully blocked), some barrier insertion loss would still occur, however, to a lesser extent. Additionally, a receptor located on the same side of the wall as a noise source may actually experience an increase in the perceived noise level as the wall reflects noise back to the receptor, thereby compounding the noise. Noise barriers can provide noise level reductions ranging from approximately 5 dBA (where the barrier just breaks the line-of-sight between the source and receiver) to an upper range of 20 dBA with a more substantial barrier.[3]

Community noise levels usually fluctuate continuously throughout the day. The equivalent sound level (L_{eq}) is normally used to describe community noise. The L_{eq} is the equivalent steady-state A-weighted sound level that would contain the same acoustical energy as the time-varying A-weighted sound level during the same time interval. For intermittent noise sources, the maximum noise level (L_{max}) is normally used to represent the maximum noise level

[1] *Engineering Noise Control, Bies & Hansen, 1988.*

[2] *Caltrans, Technical Noise Supplement (TeNS), 1998.*

[3] *Ibid.*

measured during the measurement. Maximum and minimum noise levels, as compared to the L_{eq}, are a function of the characteristics of the noise source. As an example, sources such as generators have maximum and minimum noise levels that are similar to L_{eq} since noise levels for steady-state noise sources do not substantially fluctuate. However, as another example, vehicular noise levels along local roadways result in substantially different minimum and maximum noise levels when compared to the L_{eq} since noise levels fluctuate during pass-by events. The City of Pasadena Municipal Code uses the L_{eq} for evaluation of noise violation.

To assess noise levels over a given 24-hour time period, the Community Noise Equivalent Level (CNEL) descriptor is used in land use planning. CNEL is the time average of all A-weighted sound levels for a 24-hour period with a 10 dBA adjustment (upward) added to the sound levels which occur in the night (10:00 P.M. to 7:00 A.M.) and a 5 dBA adjustment (upward) added to the sound levels which occur in the evening (7:00 P.M. to 10:00 P.M.). These penalties attempt to account for increased human sensitivity to noise during the quieter nighttime periods, particularly where sleep is the most probable activity. CNEL has been adopted by the State of California to define the community noise environment for development of the community noise element of a General Plan, and is also used by the City of Pasadena (City) for land use planning in the City's Noise Element of the General Plan.[4]

(2) Ground-Borne Vibration

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. The peak particle velocity (PPV) or the root mean square (RMS) velocity, in terms of inches per second, is usually used to describe vibration amplitudes. PPV is defined as the maximum instantaneous peak of the vibration signal, while RMS is defined as the square root of the average of the squared amplitude of the signal. PPV is typically used for evaluating potential building damage, whereas RMS is typically more suitable for evaluating human response. Vibration levels described in this section are in the unit of inch-per-second. Ground-borne vibration generated by man-made activities (i.e., roadway traffic, mechanical equipment and typical construction equipment) attenuates rapidly with distance from the source of the vibration. Man-made vibration issues are therefore usually confined to short distances (i.e., 100 feet or less) from the source.

b. Regulatory Framework

Many government agencies have established noise regulations and policies to protect citizens from potential hearing damage and various other adverse physiological and social effects associated with noise and ground-borne vibration. The City has adopted a number of policies,

[4] *State of California, General Plan Guidelines, 2002.*

which are based in part on federal and State regulations and are intended to control, minimize or mitigate environmental noise effects. There are no City-adopted policies or standards that relate to ground-borne vibration, but the Federal Transit Administration (FTA), the California Department of Transportation (Caltrans), and the County of Los Angeles do have such standards and/or policies. The regulations and policies that are relevant to project construction and operation noise levels are discussed below.

(1) City of Pasadena Municipal Code

The following sections of the current City of Pasadena Municipal Code (PMC) (Title 9, Chapter 9.36) are particularly applicable to this study:

Section 9.36.020 – Declaration of Policy

It is declared to be the policy of the city to prohibit unnecessary, excessive and annoying noises from all sources subject to its police power. Noise at certain levels is detrimental to the health and welfare of the general public. Consequently, it shall be systematically proscribed in the public interest.

Section 9.36.070 – Construction Projects

A. No person shall operate any pile driver, power shovel, pneumatic hammer, derrick power hoist, forklift, cement mixer or any other similar construction equipment within a residential district or within a radius of 500 feet therefrom at any time other than as listed below:

    1. From 7:00 A.M. to 7:00 P.M. Monday through Friday;

    2. From 8:00 A.M. 5:00 P.M. on Saturday;

    3. Operation of any of the listed construction equipment is prohibited on Sundays and holidays.

B. No person shall perform any construction or repair work on buildings, structures or projects within a residential district or within a radius of 500 feet therefrom in such a manner that a reasonable person of normal sensitiveness residing in the area is caused discomfort or annoyance at any time other than as listed below:

    1. From 7:00 A.M. to 7:00 P.M. Monday through Friday;

    2. From 8:00 A.M. to 5:00 P.M. on Saturday;

3. Performance of construction or repair work is prohibited on Sundays and holidays.

C. The prohibition against construction on Sundays and Holidays as set forth in subsection B of this section shall not apply under either of the following conditions:

1. The construction is actually performed by an individual who is the owner or lessor of the premises and who is assisted by not more than two individuals;

2. The person performing the construction shall have provided the building official with a petition which indicates the consent of 65 percent of the households residing within 500 feet of the construction site and the unanimous consent of the households adjacent to the construction site. Said petition shall be on a form promulgated by said building official and shall be accompanied by a fee, the amount of which shall be established by resolution by the city council.

D. The prohibitions of this section shall not apply to the performance of emergency work as defined in Section 9.36.030.

E. For purposes of this section, holidays are New Year's Day, Martin Luther King Jr. Day, Lincoln's Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, Day after Thanksgiving, and Christmas.

Section 9.36.080 – Construction Equipment

It is unlawful for any person to operate any powered construction equipment if the operation of such equipment emits noise at a level in excess of 85 dBA when measured within a radius of 100 feet from such equipment.

Section 9.36.090 – Machinery, Equipment, Fans and Air Conditioning

Except for emergency work, as defined in this chapter it is unlawful for any person to operate any machinery, equipment, pump, fan, air conditioning apparatus or similar mechanical device in any manner so as to create any noise which would cause the noise level at the property line of any property to exceed the ambient noise level by more than 5 decibels.

(2) City of Pasadena Guidelines for Noise Compatible Land Use

The City has modified and adopted local guidelines based, in part, on the California General Plan Guidelines for use in assessing the compatibility of various land use types with a range of noise

levels.[5] These guidelines are set forth in the *City of Pasadena Revised Noise Element of the General Plan (2002)* in terms of the Community Noise Equivalent Level (CNEL). CNEL guidelines for specific land uses are classified into four categories: (1) "clearly acceptable," (2) "normally acceptable," (3) "conditionally acceptable," and (4) "normally unacceptable." As shown in Table IV.C-1 on page IV.C-7, a CNEL value of 85 dBA is the upper limit of what is considered a "conditionally acceptable" noise environment for office building uses, although the upper limits of what is considered "normally acceptable" for office building uses are set at 77 dBA CNEL.[6] If new development proceeds within the "normally acceptable" category, an analysis of the noise reduction requirements should be made and needed noise insulation features included in the design.

(3) Federal, State, and Local Government Ground-Borne Vibration Standards

The City has not adopted policies or guidelines relative to ground-borne vibration. As such, the following is a summary of Los Angeles County, Caltrans, and Federal Transportation Agency (FTA) ground-borne vibration policies and guidelines. The Los Angeles County Noise Regulation (Section 12.08.350) states a presumed perception threshold of 0.01 inches per second RMS, but this applies to ground-borne vibrations from long-term operations activities, such as surface traffic corridor, not construction. With respect to ground-borne vibration from construction activities, the FTA and Caltrans have adopted guidelines/recommendations to limit ground-borne vibration based on the age and/or condition of the structures that are located in close proximity to construction activity.

A technical discussion of construction activity-related vibration is provided in Section 12.2 of the FTA publication titled "Transit Noise and Vibration Impacts Assessments," May 2006. As described therein, a ground-borne vibration level of 0.5 inch-per-second peak particle velocity (PPV) should be considered as damage threshold criterion for reinforced concrete, steel or timber (no plaster) buildings, and a ground-borne vibration level of 0.2 inch-per-second PPV should be considered as damage criterion for non-engineered timber and masonry buildings. With respect to residential and commercial structures, Caltrans' technical publication titled "Transportation- and Construction-Induced Vibration Guidance Manual" June 2004, provides a vibration damage potential threshold criterion (for continuous/frequent intermittent sources) of 0.3 inch-per-second PPV for older residential structures, 0.5 inch-per-second PPV for newer residential structures, and 0.5 inch-per-second PPV for modern industrial/commercial buildings.

[5] *City of Pasadena Revised Noise Element, December 2002.*

[6] *Ibíd.*

Table IV.C-1

City of Pasadena Guidelines for Noise Compatible Land Use

Land Use Category	*Community Noise Exposure L_{dn} or CNEL, dBA*						
	55	*60*	*65*	*70*	*75*	*80*	*85*
Residential – Low Density Single Family, Duplex, Mobile Homes							
Residential – Multi- Family and Mixed Commercial/Residential Use							
Transient Lodging – Motels, Hotels							
Schools, Libraries, Churches, Hospitals, Nursing Homes							
Auditoriums, Concert Halls, Amphitheatres							
Sports Arena, Outdoor Spectator Sports							
Playgrounds, Neighborhood Parks							
Golf Courses, Riding Stables, Water Recreation, Cemeteries							
Office Buildings, Business Commercial and Professional							
Industrial, Manufacturing, Utilities, Agriculture							

	CLEARLY ACCEPTABLE: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
	NORMALLY ACCEPTABLE: New construction or development should be undertaken after an analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
	CONDITIONALLY ACCEPTABLE: If new construction or development proceeds, an analysis of the noise reduction requirement should be made and needed noise insulation features included in the design.
	NORMALLY UNACCEPTABLE: New construction or development should generally not be undertaken, unless it can be demonstrated than an interior level of 45 dBA can be achieved.

** Please note that these guidelines are general and may not apply to specific sites.*

Source: California, General Plan Guidelines, 1998, as modified by the City of Pasadena, 2002

c. Existing Conditions

(1) Noise-Sensitive Receptors

Some land uses are considered more sensitive to noise than others due to the amount of noise exposure and the types of activities typically involved at the receptor location. Existing noise-sensitive land uses (i.e., residential and hospital) in the project vicinity are shown in Figure IV.C-1 on page IV.C-9, and include the following:

- West of Project Site: The nearest noise sensitive uses, single-family residential, are located along Concordia Court, north of East California Boulevard approximately 450 feet northwest of the project site, represented by noise measurement location R2. An existing hospital (Huntington Memorial Hospital) is located in the vicinity of the project site, on Fairmount Avenue, south of East California Boulevard approximately 500 feet west of the project site (represented by noise measurement location R3).

- East of Project Site: There are single- and multi-family residential uses located along Pico Street approximately 900 feet east of the project site (represented by noise measurement location R4).

(2) Ambient Noise Levels

The predominant noise source surrounding the project site is roadway noise from California Boulevard to the north and Fair Oaks Avenue to the west. Secondary noise sources include existing general commercial and retail-related activities, loading dock/delivery truck activities, trash compaction, refuse service activities, and railroad train operation.

To quantify the existing noise environment, ambient noise measurements were made at four locations, representing the project site and nearby land uses in the vicinity of the project site as indicated on Figure IV.C-1 and described below:

- Measurement Location R1: This measurement location represents the existing environment of the project site. The noise measuring device (sound level meter) was placed on the site's western boundary near Fair Oaks Avenue.

- Measurement Location R2: This measurement location represents the noise environment of the nearest noise-sensitive receptor, single-family residential uses located approximately 450 feet northwest of the project site. The sound level meter was placed on the west sidewalk of Concordia Court approximately 45 feet north of California Boulevard.

PCR

0 250 500 Feet

Source: PCR Services Corporation, 2008; Google Earth, 2008.

Figure IV.C-1
Noise Measurement and Sensitive Receptor Locations

- Measurement Location R3: This measurement location represents the existing noise environment of the nearest hospital uses, approximately 500 feet west of the project site. The sound level meter was placed in front of the Huntington Memorial Hospital entrance along Fairmount Avenue, approximately 190 feet south of California Boulevard.

- Measurement Location R4: This measurement location represents the existing noise environment of the nearest single- and multi-family residential uses to the east of the site, approximately 900 feet. The sound level meter was placed in front of a single-family residential unit on the north side of Pico Street, approximately 180 feet east of S. Arroyo Parkway.

The ambient noise measurements were conducted using the Larson-Davis 820 Precision Integrated Sound Level Meter (SLM). The Larson-Davis 820 SLM is a Type 1 standard instrument as defined in the American National Standard Institute (ANSI) S1.4. All instruments were calibrated and operated according to the applicable manufacturer specification. The microphone was placed at a height of five feet above grade. A short-term (15-minute) measurement was recorded at each of the four noise monitoring locations. A 15-minute measurement is a reasonable duration for sampling ambient noise levels where street traffic is the dominate source (typical of urban environment), as traffic noise generally does not vary significantly within an hour. Furthermore, the ambient noise measurements were made in accordance with the City's standards, which require ambient noise to be measured over a period of at least 15 minutes.[7] Ambient sound measurements were conducted on Thursday, October 2, 2008 between the hours of 4:00 P.M. and 6:00 P.M.

A summary of noise measurement data is provided in Table IV.C-2 on page IV.C-11. As shown in Table IV.C-2, the existing ambient noise levels ranged from 61 dBA to 63 dBA ($L_{eq\ (15\text{-}minute)}$) at the nearby noise sensitive receptors, R2 through R4, and 70 dBA at the project site (R1).

To further characterize the area's noise environment, the CNEL noise levels generated by existing traffic on local roadways was calculated using a computer noise prediction model developed based on calculation methodologies provided in the Caltrans Technical Noise Supplement (TeNS) document and traffic data provided in the project Traffic Impact Analysis Report (TIA).[8] The roadway noise calculation procedures provided in the Caltrans TeNS are consistent with Federal Highway Administration RD-77-108 roadway noise prediction

[7] *Pasadena Municipal Code, Section 9.36.020.*

[8] *Traffic and Parking Study for the California Fair Oaks Office Building, City of Pasadena, Fehr & Peers Transportation Consultants, September 2008.*

Table IV.C-2

Summary of Ambient Noise Measurements

Receptor Location, Descriptions and Land Uses	Measurement Date Time of Day	Measured Ambient Noise Levels, dBA, L_{eq}
R1 – East Property Line of the project site near Fair Oaks Avenue	10/2/08 Thursday (4:00 P.M. to 6:00 P.M.)	70
R2 – Concordia Court – single-family residential uses.	10/2/08 Thursday (4:00 P.M. to 6:00 P.M.)	63
R3 – Fairmount Avenue – hospital uses.	10/2/08 Thursday (4:00 P.M. to 6:00 P.M.)	63
R4 – Pico Street – single- and multi-family residential uses	10/2/08 Thursday (4:00 P.M. to 6:00 P.M.)	61

Source: PCR Services Corporation, 2008.

methodologies. This methodology allows for the definition of roadway configurations, barrier information (if any), and receiver locations.

A model calibration test was performed to establish the accuracy of the noise prediction model. The road segments included in the calibration test were Fair Oaks Avenue and California Boulevard. At the noted locations, a 15-minute noise recording was made concurrent with logging of actual traffic volumes and auto fleet mix (i.e., standard automobile, medium duty truck, or heavy duty truck). The traffic counts were entered into the noise model along with the observed speed, lane configuration, and distance to the roadway to calculate the traffic noise levels. The results of the traffic noise model calibration are provided in Table IV.C-3 on page IV.C-12. As indicated, the noise model results are within less than 1 dBA (measured levels being as much as 0.4 dBA higher than the actual measured values) of the measured noise levels, which is within the industry standard tolerance of the noise prediction model. Therefore, the project specific traffic noise prediction model is considered accurate and specific to the project physical settings and conditions.

The traffic noise prediction model calculates the 24-hour CNEL noise levels based on specific information including; Average Daily Traffic Volume (ADT), percentages of day, evening and nighttime traffic volumes relative to ADT, vehicle speed and distance between the noise receptor and the roadway. Vehicle mix/distribution information used in the noise calculation is shown in Table IV.C-4 on page IV.C-12. As indicated in Table IV.C-5 on page IV.C-13, the calculated CNEL for the analyzed roadway segments as a result of existing traffic volumes ranged from 60.7 dBA CNEL to 69.7 dBA CNEL at a distance of 25 feet based on surface-street traffic volume only. As shown therein, noise levels at the nearest sensitive receptors to each analyzed roadway segment are within normally acceptable noise levels at all

Table IV.C-3

Traffic Noise Model Calibration Results

Road Segment	Traffic Counts during noise readings, 15-minutes: Autos	Medium Trucks [a]	Heavy Trucks [b]	Measured Traffic Noise Levels, L_{eq} (dBA)	Project Traffic Noise Model Predicted Noise Levels, L_{eq} (dBA)	Difference between Predicted and Measured Levels, dBA
Fair Oaks Avenue	480	15	5	69.9	69.5	-0.4
California Boulevard	445	5	1	62.9	62.7	-0.2

[a] *Medium Truck – 2 axle trucks based on field observations.*
[b] *Heavy Truck – 3 or more axles trucks and buses based on field observations.*

Source: PCR Services Corporation, 2008.

Table IV.C-4

Vehicle Mix for Traffic Noise Model

Vehicle Type	Percent of ADT, (%): Daytime hours (7 A.M. to 7 P.M.)	Evening Hours (7 P.M. to 10 P.M.)	Nighttime Hours (10 P.M. to 7 A.M.)	Total
Automobile	82.5	9.7	4.9	97.0
Medium Truck[a]	1.7	0.2	0.1	2.0
Heavy Truck[b]	0.9	0.1	0.1	1.0

[a] *Medium Truck – 2 axle trucks based on field observations.*
[b] *Heavy Truck – 3 or more axles trucks and buses based on field observations.*

Source: Fehr & Peers Transportation Consultants, 2008.

residential areas, i.e., 70 dBA or lower for single-family residential, multi-family residential, and mixed commercial/residential use.

(3) Vibration-Sensitive Receptor Locations

Vibration sensitive receptors closest to the project site include the residential uses (along Concordia Court north of California Boulevard) and the Huntington Memorial Hospital (along Fairmount Avenue south of California Boulevard), approximately 450 feet and 500 feet west of the project site, respectively.

Table IV.C-5

Predicted Existing Vehicular Traffic Noise Levels

Roadway Segment	Adjacent Land Use	Existing Noise Exposure Compatibility [a] Category	Predicted Existing CNEL (dBA) at Referenced Distances from Roadway Right-of-Way		
			Adjacent	25 feet	50 feet
California Boulevard					
West of St. John Avenue	Multi-Family Residential	Clearly Acceptable	65.8	62.8	61.1
Between St. John Avenue and Pasadena Avenue	Commercial	Clearly Acceptable	69.1	66.2	64.4
Between Pasadena Avenue and Fair Oaks Avenue.	Residential / Commercial	Normally Acceptable	68.6	66.3	64.9
Between Fair Oaks Avenue and Raymond Avenue	Commercial	Clearly Acceptable	70.0	66.8	64.9
Between Raymond Avenue and Arroyo Parkway	Commercial	Clearly Acceptable	70.1	66.9	65.0
East of Arroyo Parkway	Multi-Family Residential	Normally Acceptable	70.4	67.1	65.3
Fair Oaks Avenue					
North of Del Mar Boulevard	Commercial	Clearly Acceptable	69.9	67.4	65.9
Between Del Mar Boulevard and California Boulevard	Commercial	Clearly Acceptable	69.4	66.9	65.4
Between California Boulevard and Congress Street	Commercial	Clearly Acceptable	72.9	69.7	67.8
Between Congress Street and Glenarm Street	Residential / Commercial	Normally Acceptable	70.9	68.4	66.9
South of Glenarm Street	Residential / Commercial	Normally Acceptable	71.2	68.8	67.2
Raymond Avenue					
North of California Boulevard	Commercial	Clearly Acceptable	65.5	63.0	61.5
Between California Boulevard and Pico Street	Commercial	Clearly Acceptable	65.9	63.4	61.9
South of Pico Street	Commercial	Clearly Acceptable	66.1	63.7	62.1
Glenarm Street					
West of Fair Oaks Avenue	Single- and Multi-Family Residential	Normally Acceptable	64.8	60.7	58.7
East of Fair Oaks Avenue	Commercial	Clearly Acceptable	65.4	62.8	61.1
Del Mar Boulevard					
West of Fair Oaks Avenue	Commercial	Clearly Acceptable	70.3	67.9	66.3
East of Fair Oaks Avenue	Park / Commercial	Clearly Acceptable	72.1	68.9	67.0

Table IV.C-5 (Continued)

Predicted Existing Vehicular Traffic Noise Levels

Roadway Segment	Adjacent Land Use	Existing Noise Exposure Compatibility [a] Category	Predicted Existing CNEL (dBA) at Referenced Distances from Roadway Right-of-Way		
			Adjacent	25 feet	50 feet
Arroyo Parkway					
North of California Boulevard	Residential / Commercial	Normally Acceptable	70.4	68.2	66.8
South of California Boulevard	Commercial	Clearly Acceptable	71.2	69.1	67.6

[a] *Based on noise levels at 25 feet distance from the roadway.*

Source: PCR Services Corporation, 2009.

(4) Existing Ground-Borne Vibration Environment

Based on field observations, the only source of ground-borne vibration in the project vicinity is vehicular travel (refuse trucks, delivery trucks, school buses, and transit buses) on local roadways and the Metro Gold Line approximately 450 feet east of the project site. According to FTA, it is unusual for vibration from traffic including buses and trucks to be perceptible, even in location close to major roadways.[9] Therefore, the existing ground vibration environment in the vicinity of the project site is based on reference data published by FTA. Based on the FTA's data, the project site is likely subject to ground vibration from adjacent road traffic, including California Boulevard and Fair Oaks Avenue, of 0.001 inch per second RMS. This vibration level is considered well below the perception threshold of 0.01 inch per second (RMS) for ground-borne vibration per Los Angeles County Noise Regulation (discussed above). In addition, based on FTA's data for light rail system, the ground-borne vibration generated by the Metro Gold Line would be well below the perception threshold at the project site.

[9] *Federal Transit Administration "Transit Noise and Vibration Impact Assessment", Chapter 7, 1995.*

3. ENVIRONMENTAL IMPACTS

a. Methodology

(1) Construction Noise

Noise impacts from on-site construction activities, and from construction trucks staging and hauling are evaluated by determining the noise levels generated by the different types of construction activity, calculating the construction-related noise level at nearby sensitive receptor locations, and comparing these construction-related noise levels to existing ambient noise levels (i.e., noise levels without construction noise). More specifically, the following steps were undertaken to calculate construction-period noise impacts:

A. Ambient noise levels at surrounding sensitive receptor locations were estimated based on field measurement data (see Table IV.C-2 on page IV.C-11);

B. Typical noise levels for each type of construction equipment were obtained from the Federal Highway Administration's (FHWA) Roadway Construction Noise Model;

C. Distances between construction site locations (noise source) and surrounding sensitive receptors were measured using Google Earth and project's site plans;

D. The construction noise level was then calculated for sensitive receptor locations based on the standard point source noise-distance attenuation factor of 6.0 dBA for each doubling of distance; and

E. The resulting noise level was compared to the construction noise significance thresholds identified below.

(2) Operation Noise

(a) Off-Site Noise Sources (Roadway Traffic)

Roadway noise impacts were evaluated using TeNS methodology. This methodology allows the user to define roadway configurations, noise barrier information (if any), and noise receptor locations. Traffic noise levels were calculated for roadway segments with sensitive receptors at distances of 25 feet and 50 feet from the edge of the roadway. Roadway-noise attributable to project development "future with project" was calculated and compared to baseline noise levels that would occur under the "future without project" condition to determine significance.

(b) On-Site Noise Sources

Stationary point-source noise impacts were evaluated by identifying the outdoor stationary noise sources such as building mechanical/electrical equipment, loading dock and trash/recycling areas, and parking facility and estimating the noise level from each noise source at surrounding residential property locations, and then comparing such noise levels to ambient noise levels to determine significance.

(3) Ground-Borne Vibration (During Construction and Project Operations)

Ground-borne vibration impacts were evaluated by identifying potential vibration sources, measuring the distance between vibration sources and surrounding structure locations, and making a significance determination.

b. Thresholds of Significance

Appendix G of the CEQA Guidelines provides a checklist of questions to assist in determining whether a project would have a significant impact related to various environmental issues including noise. According to the CEQA Guidelines, implementation of the proposed Project may have a significant adverse impact if it would:

- Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Expose persons to or generate excessive groundborne vibration or groundborne noise levels;
- Create a substantial permanent increase in ambient noise levels in the vicinity of the project above levels without the project; or
- Create a substantial temporary or periodic increase in ambient noise levels in the vicinity of the project, in excess of noise levels existing without the project.

Additionally, the following thresholds of significance were developed to evaluate potential noise and vibration impacts from the proposed Project, based on the regulatory framework described in subsection IV.C.2.b, earlier, and in accordance with CEQA Guidelines.

(1) Construction Noise

The following thresholds of significance are set forth in Chapter 9.36 (Noise Restrictions Ordinance) of the PMC, which states that a project would normally have a significant impact on noise levels from construction if:

- *Construction-related noise levels exceed 85 dBA when measured within a radius of 100 feet from such equipment; or*
- *Construction activities would occur outside the hours of 7:00 A.M. to 7:00 P.M. Monday through Friday day, from 8:00 A.M. 5:00 P.M. on Saturday, or anytime on Sunday or holiday (City observed).*

(2) Construction Vibration

The City currently does not have a significance threshold to assess vibration impacts during construction. Thus, the FTA and Caltrans standards described earlier in subsection IV.C.2.b.(3) are used to evaluate potential impacts related to project construction. For a conservative analysis, the lower FTA threshold, which is lower than the Caltrans threshold, is used to assess potential vibration impacts from project construction. Therefore, impacts relative to ground-borne vibration would be considered significant if:

- *Project construction activities would cause ground-borne vibration levels to exceed 0.2 inches per second (PPV) at the nearest off-site building.*

(3) Operation Noise

The City's noise regulation does not currently have a defined significance threshold to assess project-related traffic noise impacts. With respect to the community noise assessment, changes in noise levels of less than 3 dBA are generally not discernable to most people, while changes greater than 5 dBA are readily noticeable and would be considered a significant increase. Therefore, the significance threshold for off-site traffic noise is based on human perceptibility to changes in noise levels (increases), with consideration of existing ambient noise conditions, and City's guidelines for noise compatible land use. Based on criteria set forth in the PMC, the operation of the proposed Project would have a significant impact on existing noise environment if:

- *Project-related operational (i.e., non-roadway) noise sources, including outdoor building mechanical/electrical equipment, parking structure, and loading dock*

increase ambient noise levels indicated in Table IV.C-2 on page IV.C-11 by 5 dBA at the nearest residential property.

- *Project-related off-site traffic increases ambient noise levels along roadway segments with sensitive receptors by 3 dBA (CNEL) or more resulting in a change in the noise compatible land use classification or by 5 dBA (CNEL) or more if project operations do not degrade community noise levels beyond the "conditionally acceptable" category.*

- *Proposed office uses exceed an exterior noise level of 70 dBA CNEL for outdoor areas without achieving an interior noise level of 45 dBA CNEL.*

(4) Ground-Borne Vibration from Project Operations

The City does not have a specific significance threshold to assess vibration impacts due to long-term project operations. Thus, the County of Los Angeles standard for human perception described earlier in subsection IV.C.2.b.(3) is used to evaluate potential impacts related to project operations. Therefore, impacts relative to ground-borne vibration would be considered significant if the following future event were to occur:

- *Project operational activities generate a ground-borne vibration level of 0.01 inches per second RMS or higher at any sensitive receptor.*

c. Project Features

The following project features have a potential to influence project-related noise characteristics, and therefore, were taken into account during the analysis of potential project impacts.

(1) Project Construction

- The project contractor(s) would equip all construction equipment, fixed or mobile, with properly operating and maintained noise mufflers, consistent with manufacturers' standards.

- In accordance with PMC requirements, construction hours for exterior construction and hauling activities would not occur outside the hours of 7:00 A.M. and 7:00 P.M., Monday through Friday, and 8:00 A.M. and 5:00 P.M. on Saturday.

(2) Project Operations

- The building would include architectural features and screening that may go up to an additional 14 feet to provide screening for mechanical equipment, which would provide noise shielding to the exterior.

d. Analysis of Project Impacts

(1) Construction

Noise impacts from construction activities are generally a function of the noise generated by construction equipment, equipment locations, the sensitivity of nearby land uses, and the timing and duration of the noise-generating activities. Construction activities at the project site would include three stages: (1) demolition; (2) site grading; and (3) building construction. Each stage involves the use of different kinds of construction equipment and, therefore, has its own distinct noise characteristics. Demolition typically involves the use of loaders, backhoes, haul trucks, and bobcats. Site grading typically involves the use of earth moving equipment, such as bobcats, excavators, graders, and haul trucks. Building construction typically involves the use of drill rigs, cranes, forklifts, backhoes, and rollers. The proposed Project would be constructed using typical construction techniques, no blasting or impact pile driving would be used. Construction of the proposed Project is estimated to last approximately 19 months.

(a) On-Site Construction Activities

Project construction would require the use of mobile heavy equipment with high noise level characteristics. Individual pieces of construction equipment that would be used for project construction produce maximum noise levels of 75 dBA to 85 dBA at a reference distance of 50 feet from the noise source, as shown in Table IV.C-6 on page IV.C-20. These maximum noise levels would occur when equipment is operating under full power conditions or during impact activities, such as jack hammering or sawing. However, equipment used on construction sites often operates under less than full power conditions, or part power. To more accurately characterize construction-period noise levels, the average (Hourly L_{eq}) noise level associated with each construction stage is calculated based on the quantity, type, and usage factors for each type of equipment used during each construction stage assuming that multiple pieces of equipment would operate simultaneously.

Using the industry standard sound attenuation rate of 6 dB per doubling of distance for point sources (e.g., construction equipment) and sound attenuation provided by intervening buildings between project site noise source and the receptor site, the worst-case construction-period noise levels were estimated at the nearest noise sensitive receptors by phase of

Table IV.C-6

Construction Equipment Noise Levels

Equipment	Estimated Usage Factor, Percentage (%)	Typical Noise Level at 50 feet from Equipment, dBA (L_{max})
Backhoe	40	78
BobCat	40	78
Bore/Drill Rig	20	84
Crane	16	81
Dump/Haul Trucks	40	76
Excavator	40	81
Forklifts	50	75
Grader	40	85
Rollers	20	80
Rubber Tired Loader	40	79

Source: FHWA Roadway Construction Noise Model, 2005.

construction activity. A summary of noise level increases by receptor location and phase of construction activity is provided in Table IV.C-7 on page IV.C-21. The estimated noise levels represent a worst case scenario because construction activities are analyzed as if they were occurring along the perimeter of the construction area, whereas construction would typically occur throughout the site and at a further distance from noise-sensitive receptors. As shown in Table IV.C-7, the estimated construction-related noise at the nearest single-family residential uses (R2) along Concordia Court, the hospital use (R3) on Fairmount Avenue, and the residences (R4) along Pico Street would not exceed existing ambient noise levels. In addition, the construction equipment noise level would be below the City's noise limit of 85 dBA at a distance of 100 feet. As such, construction-period noise impacts would be less than significant. Nonetheless, mitigation measures are recommended below to reduce noise levels at adjacent properties where construction noise would exceed ambient noise levels.

(b) Ground-Borne Vibration during Construction

Construction activities can generate varying degrees of ground vibration, depending on the construction procedures and the construction equipment used. The operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of a construction site often varies depending on soil type, ground strata, and construction characteristics of the receptor building(s). The results from vibration impacts can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. However, ground-borne vibrations from construction

Table IV.C-7

Estimate of Construction Noise Levels at Off-Site Sensitive Receiver Locations

Noise Sensitive Receptor [a]	Nearest Distance from Construction Activity to the Noise Receptor, feet	Estimated Construction Noise Levels at the Noise Sensitive Receptor by Construction Phase [b], Hourly L_{eq} (dBA)			Project's Significance Threshold [c] (dBA)	Construction Noise Relative to Significance Threshold [d] (dBA)
		Demolition (1 month)	Site Grading (2 months)	Building Construction (16 months)		
R2 – Nearest Residential West of Project Site [e]	450	56	60	57	68	-12 – -8
R3 – Nearest Hospital West of Project Site [f]	500	50	54	51	68	-18 – -14
R4 – Nearest Residential East of Project Site [f]	900	45	49	46	66	-21 – -17

Note: Noise Sensitive Receptor locations are shown on Figure IV-C-1.

[a] *Construction noise levels at R1 are not estimated since R1 represents the noise environment at the project site.*
[b] *Estimated construction noise levels represent the worst-case condition when noise generators are located closest to the receptors and are not expected to last the entire construction duration.*
[c] *Measured ambient noise levels plus 5 dBA.*
[d] *Plus sign means construction noise exceed the project significance thresholds*
[e] *Partially shielded from the construction site by existing buildings, assumed minimum 5 dBA sound attenuation.*
[f] *Fully shielded from the construction site by existing buildings, assumed minimum 10 dBA sound attenuation.*

Source: PCR Services Corporation, 2009.

activities rarely reach the levels that damage structures.[10] Table IV.C-8 on page IV.C-22 provides the FTA published the typical vibration velocities, in terms of peak particle velocities (PPV), for various construction equipment expected to be used during project construction.

The proposed Project would generate ground-borne vibration during site clearing and grading activities with a large bulldozer in operation. Based on the vibration data provided in Table IV.C-8, vibration velocities from the operation of construction equipment would range from approximately 0.003 to 0.089 inches per second PPV at 25 feet from the source of activity. The nearest buildings to the project site, approximately 20 feet to the south, would be exposed to vibration velocities that range from approximately 0.004 to 0.124 inches per second PPV. As this value is well below the 0.2 inches per second PPV significance threshold, vibration impacts associated with construction would be less than significant.

[10] *FTA, Transit Noise and Vibration Impacts Assessments, 1995.*

Table IV.C-8

Typical Vibration Velocities for Potential Project Construction Equipment

Equipment	Typical Vibration Velocity Levels at 25 feet from the Equipment PPV (inches per second)
Large bulldozer	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003

Source: USDOT Federal Transit Administration, 1995.

(2) Operation Noise (Post-Construction)

This section provides a discussion of potential noise impacts related to the long-term operations of the project on neighboring noise-sensitive receptor locations, as well as the potential impacts of the existing noise environment on the proposed office uses. With respect to project impacts to neighboring noise-sensitive receptor locations, project-specific noise sources considered herein include off-site roadway noise; on-site mechanical equipment; and loading and parking facilities.

(a) Off-Site Roadway Noise

According to the proposed Project's Traffic Study, included as Appendix E to this EIR, the proposed Project is expected to generate a total of 253 daily trips (net trip generation), including 113 weekday A.M. peak hour trips, and 40 weekday P.M. peak hour trips. Table IV.C-9 on page IV.C-23 provides a summary of the off-site roadway noise analysis results. Included on these tables are calculated CNEL noise levels at a reference distance of 25 feet for the roadway segments with noise sensitive uses for the following scenarios: (1) existing conditions; (2) future without project; and (3) future with project. The project-generated traffic noise impact is determined by comparing the increase in noise levels (from future without project to future with project) with the project's significance threshold.

As shown in Table IV.C-9, the maximum increase in project-related traffic noise levels would be 0.1 dBA along five roadway segments. The estimated noise increase due to project-related traffic is considered negligible and well below the 3 dBA CNEL significance threshold. Therefore, roadway noise level increases would be less than significant.

Table IV.C-9

Off-Site Traffic Noise Analysis

Roadway Segment/ Cross Section	Calculated Traffic Noise Levels at 25 feet from Roadway, CNEL (dBA) Existing	Future Without Project	Future With Project	Project Increment	Cumulative Increment
California Boulevard					
West of St. John Avenue	62.8	63.0	63.0	0.0	0.2
Between St. John Avenue and Pasadena Avenue	66.2	66.3	66.3	0.0	0.1
Between Pasadena Avenue and Fair Oaks Avenue.	66.3	66.5	66.5	0.0	0.2
Between Fair Oaks Avenue and Raymond Avenue	66.8	66.9	67.0	0.1	0.2
Between Raymond Avenue and Arroyo Parkway	66.9	67.0	67.0	0.0	0.0
East of Arroyo Parkway	67.1	66.4	66.4	0.0	-0.7
Fair Oaks Avenue					
North of Del Mar Boulevard	67.4	67.9	67.9	0.0	0.5
Between Del Mar Boulevard and California Boulevard	66.9	67.3	67.3	0.0	0.4
Between California Boulevard and Congress Street	69.7	70.0	70.0	0.0	0.3
Between Congress Street and Glenarm Street	68.4	69.2	69.2	0.0	0.8
South of Glenarm Street	68.8	69.7	69.7	0.0	0.9
Raymond Avenue					
North of California Boulevard	63.0	63.1	63.2	0.1	0.2
Between California Boulevard and Pico Street	63.4	64.4	64.5	0.1	1.1
South of Pico Street	63.7	63.8	63.9	0.1	0.2
Glenarm Street					
West of Fair Oaks Avenue	60.7	62.2	62.2	0.0	1.5
East of Fair Oaks Avenue	62.8	63.2	63.3	0.1	0.5
Del Mar Boulevard					
West of Fair Oaks Avenue	67.9	68.0	68.0	0.0	0.1
East of Fair Oaks Avenue	68.9	69.0	69.1	0.1	0.2
Arroyo Parkway					
North of California Boulevard	68.2	68.4	68.4	0.0	0.2
South of California Boulevard	69.1	69.2	69.2	0.0	0.1

Source: PCR Services Corporation, 2009.

(b) Stationary Point-Source Noise

This section considers potential noise impacts to neighboring noise-sensitive properties related to specific noise sources associated with operation of the project. Such potential noise sources include:

- Outdoor mounted mechanical (e.g., Heating, Ventilation, and Air Conditioning [HVAC] equipment);
- Loading dock and trash/recycling areas; and
- Parking facilities.

A discussion of each of these noise sources is provided below, followed by a discussion of the potential composite noise level increase (due to multiple noise sources) at each sensitive receptor location.

(i) Mechanical Equipment

As part of project design, building mechanical equipment (e.g., parking structure air vents and building heating ventilation and air conditioning, HVAC, equipment) would be located on the roof level of the proposed building. In addition, project design features, including screen/parapet wall, would ensure that all equipment noise levels would comply with the City of Pasadena Municipal Codes requirements (i.e., not to exceed a maximum of 5 dBA above the ambient noise levels). Therefore, by meeting the City's noise requirement at the proposed Project's property line (i.e. 70 dBA L_{eq}), the project-related mechanical noise at the nearest noise sensitive receptor R2 (approximately 450 feet away), would be further reduced to approximately 45 dBA L_{eq} due to distance attenuation, which would be less than the existing ambient noise level of 63 dBA L_{eq}. Thus, impacts associated with mechanical equipment would be less than significant.

(ii) Loading Dock and Refuse Collection Areas

The proposed Project would include loading docks and refuse collection areas. A loading dock would be located along the ingress driveway from Fair Oaks Avenue. Delivery vehicles would then proceed to exit the site from Edmondson Alley. Based on measured noise levels, delivery trucks (at loading dock) and trash compactors (from refuse collection) would generate noise levels of approximately 71 dBA (L_{eq}) and 66 dBA (L_{eq}) at 50 feet distance, respectively.

The nearest noise-sensitive use, the single-family residential uses along Concordia Court (R2), is approximately 600 feet northwest of the proposed loading dock and refuse service area.

In addition, the northern and western portions of the proposed buildings would fully block the line-of-sight between the noise source and receptor location. Based on a noise level source strength of 71 dBA at a reference distance of 50 feet, and accounting for barrier-insertion loss (minimum 10 dBA insertion loss) and distance attenuation (minimum 21 dBA loss), loading dock noise would be 40 dBA at the single-family residential uses (R2). Similarly, the trash compactor noise level of 66 dBA at 50 feet would be reduced to 35 dBA at Receptor Location R2. Therefore, loading dock and refuse collection noise impacts to surrounding noise sensitive uses would be less than significant.

(iii) Parking Facility Noise Levels

The proposed Project would include a two level subterranean parking facility. Entrance to the parking facility would be provided at the east side of the new building along Edmondson Alley. Vehicular access to the parking facility entrance would be provided via an ingress driveway along Fair Oaks Avenue and California Boulevard. The proposed access to the site has been configured so that vehicular queuing would occur on-site rather than along Fair Oaks Avenue during peak traffic hours. Noise associated with a parking facility operation typically includes automobile movements (main noise source), tire squeals, car horns and car alarms (infrequent events). Automobile movements would comprise the most continuous noise source and would generate a noise level of approximately 65 dBA (L_{max}) at a distance of 25 feet. Car alarm and horn noise events, which generate maximum noise levels as high as 83 dBA (L_{max}) at a reference distance of 25 feet, would occur less frequently. The parking facility operation noise would effectively be mitigated to all noise-sensitive receptor locations, based on its subterranean and enclosed design (approximately 20 dBA attenuation) and the attenuation of noise that would occur due to distance (approximately 29 dBA attenuation to the nearest receptor R2). Therefore, parking facility operation noise would be well below the existing ambient noise levels at the nearest noise sensitive receptor. Furthermore, the noise from the proposed parking facility would be consistent or lower than the existing noise environment, which is currently an open parking lot. Thus, operation of the parking facility would not result in significant noise impacts at noise-sensitive receptor locations.

(iv) Composite Noise Level Impacts from Project Operations

An evaluation of noise from all proposed project sources (i.e., composite noise level) was conducted to conservatively ascertain the potential maximum project-related noise level increase that may occur at the noise-sensitive receptor locations included in this analysis. The overall sound environment at the areas surrounding the project is comprised of contributions from each individual noise source associated with typical daily operation of the proposed Project. Primary noise sources associated with the proposed Project include traffic, mechanical equipment, parking facility and loading dock/refuse collection.

Based on a review of the noise-sensitive receptors and the project's noise sources, the noise-sensitive locations where composite noise impacts could occur are residential uses along Concordia Court (R2), which are nearest to the project site. The noise analyses for the project's noise sources (i.e., off-site traffic and on-site noise sources) were made using various noise descriptors (i.e., 24-hour CNEL and 15-minute L_{eq}). Therefore, in order to evaluate the combined noise effect of all noise sources, a common noise descriptor, CNEL, is used. Based on the project related noise analysis above, the project off-site traffic would result in a negligible increase of 0.1 dBA CNEL on all roadway segments, including California Boulevard which receptor R2 is exposed to. In addition, the estimated project-related on-site noise sources including, mechanical equipment, parking facility and loading dock/refuse service area would be more than 10 dBA below the existing ambient noise levels at receptor R2, which would not increase existing ambient noise levels in terms of CNEL. Addition of sound levels is performed logarithmically. That is, when two sound levels are more than 10 dB, the combined sound level would be less than 1 dB of the higher level. Therefore, compositely the project related off-site traffic and on-site noise sources would result in a maximum increase of less than 1 dBA CNEL at the nearest noise-sensitive receptor, receptor R2. As such, the composite noise level impact due to the project operation would be less than significant.

(c) Site Compatibility (Office Uses)

The project would locate office uses near major traffic corridors, California Boulevard and Fair Oaks Avenue. As indicated by the traffic noise data presented in Table IV.C-9 on page IV.C-23, the proposed building would likely be exposed to traffic noise levels up to 70 CNEL along Fair Oaks Avenue. The 70 dBA CNEL represents the exterior noise environment outside of the proposed building structure and is within the "normally acceptable" category of the City's land use compatibility. As indicated in the City's guidelines for land use compatibility within this category (Table IV.C-1 on page IV.C-7), "*conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice"*. Therefore, potential noise impacts associated with the introduction of office uses would be less than significant.

(3) Operation Vibration

The project would include typical commercial-grade stationary mechanical and electrical equipment such as air handling units, condenser units, and exhaust fans, which would produce vibration. In addition, the primary sources of transient vibration would include passenger vehicle circulation within the proposed subterranean parking facility, on-site refuse/delivery truck activity, and on-site loading dock/refuse collection area activity. Ground-borne vibration generated by each of the above-mentioned activities would be similar to the existing sources (i.e., traffic on adjacent roadways) adjacent to the project site. The potential vibration impacts from all project sources at the closest structure locations would be less than the significance

threshold of 0.01 inches per second RMS for perceptibility. As such, vibration impacts associated with operation of the proposed Project would be below the significance threshold and vibration impacts during operation would be less than significant.

4. MITIGATION MEASURES

a. Construction

With the implementation of the project design features, project construction would result in less than significant noise impacts. Although not necessary to reduce impacts to a less than significant level, the mitigation measures listed below are recommended to reduce adverse noise effects on nearby land uses.

Mitigation Measure C-1: Construction activities shall be limited to the following hours in accordance with the City's Municipal Code:

1. From 7:00 A.M. to 7:00 P.M. Monday through Friday;
2. From 8:00 A.M. to 5:00 P.M. on Saturday;
3. Construction shall not occur on Sundays and Holidays.

Mitigation Measure C-2: Noise-generating construction equipment operated at the project site shall be equipped with effective noise control devices, (i.e., mufflers, lagging, and/or motor enclosures). All equipment shall be properly maintained to assure that no additional noise, due to worn or improperly maintained parts, would be generated.

Mitigation Measure C-3: Engine idling from construction equipment such as bulldozers and haul trucks shall be limited, to the extent feasible.

Mitigation Measure C-4: To the extent feasible, construction activities shall be scheduled so as to avoid operating several pieces of heavy equipment simultaneously, which causes high noise levels.

b. Operation

Based on the noise analysis above, no significant impacts were identified related to project operations. Therefore, no mitigation measures are proposed.

5. CUMULATIVE IMPACTS

As discussed in Section III, Environmental Setting of this EIR, there are 10 related projects in the surrounding areas. Of the 11 related projects described above, there are two related projects situated within 500 feet from the project site, including Related Project No. 9 – Huntington Hospital ER Expansion at California Boulevard and Fairmount Avenue and Related Project No. 10 – Medical Office at California Boulevard and Fair Oaks Avenue. The potential for noise impacts to occur are specific to the location of each related project as well as the cumulative traffic on the surrounding roadway network.

a. Construction

Noise from on-site construction activities are localized and would normally affect the areas within 500 feet from the individual construction site. Of the related projects with potential for construction to occur concurrent with the proposed Project, only two projects are in close enough proximity to result in cumulative noise effects. Related Project No. 9 is approximately 500 feet from the site and could contribute to the cumulative noise impact on the nearest noise sensitive receptor R2 along Concordia Court, which is approximately 450 feet west of the project site. Understanding that the timing of construction activities for Related Project No. 9 cannot be precisely determined and is generally beyond the control of the City, if overlapping construction activities with the proposed Project were to occur, there could be cumulative noise impacts on receptor R2. However, the project contribution would be less than significant and not cumulatively considerable since proposed project-related construction noise at receptor R2 would be below existing ambient noise levels (Table IV.C-7 on page IV.C-21). It can be assumed that construction noise from Related Project No. 9 could exceed ambient noise levels at receptor R2, as the Related Project No. 9 construction site is closer than that of the proposed Project. However, those noise levels would be intermittent, temporary and would comply with time restrictions and other relevant provisions in the PMC. Related Project No. 10 is located directly across the project site on the west side of Fair Oaks Avenue, a distance of approximately 80 feet. However, the exterior construction work associated with heavy equipment for Related Project No. 10 (the noisiest phase of construction) has been completed and construction noise would generally be limited to finish work within the interior of the building. Therefore, significant cumulative construction noise impacts would not be expected from Related Project No. 10 and the proposed Project.

b. Operation

The project site and surrounding area have been developed with uses that have previously generated, and will continue to generate noise, including noise associated with off-site traffic and on-site stationary sources. Each of the related projects that have been identified within the project's vicinity would generate stationary-source and mobile-source noise due to on-going day-

to-day operations. The related projects are of a residential, retail, or commercial nature, and these uses are consistent with the existing land uses in the vicinity of the proposed Project and are not typically associated with excessive exterior noise. Regardless, each project would produce traffic volumes that are capable of generating roadway noise impacts.

Cumulative noise impacts due to off-site traffic were analyzed by comparing the projected increase in traffic noise levels from "existing conditions" to "future with project" conditions (which includes traffic volumes from future ambient growth, known related projects, and the project) to the applicable significance criteria. The calculated traffic noise levels under "existing" and "future with project" conditions are presented in Table IV.C-9 on page IV.C-23. As shown in Table IV.C-9, cumulative traffic volumes would result in a maximum increase of 1.5 dBA CNEL along the segment of Glenarm Street, west of Fair Oaks Avenue, although the proposed Project's contribution to the cumulative increase would be less than 0.1 dBA. The cumulative noise increase at all other analyzed roadway segments would be less than 1.5 dBA CNEL. As the noise level increase would be well below the 3-dBA CNEL significance threshold, the proposed Project's contribution to this increase would not be cumulatively considerable and roadway noise impacts due to cumulative traffic volumes would be less than significant.

Due to PMC provisions that limit noise emission from stationary-noise sources such as roof-top mechanical equipment, noise levels would be less than significant at the property line for each related project. For this reason, on-site noise produced by any related project would not be additive to project-related noise levels. As the proposed Project's composite stationary-source impacts would be less than significant and not cumulatively considerable, the proposed Project would not contribute to a significant composite stationary-source noise impact is combination with other related projects. Therefore, cumulative operational noise would be less than significant.

c. Ground-Borne Vibration

Due to the rapid attenuation characteristics of ground-borne vibration and distance of the related projects to the project, there is no potential for a cumulative construction- or operational-period impact with respect to ground-borne vibration.

6. LEVEL OF SIGNIFICANCE AFTER MITIGATION

a. Construction

Although the project's construction noise impacts would be less than significant at the noise sensitive receptor sites, construction related noise would exceed ambient noise at the

nearby office and commercial/retail uses. Noise level reductions attributable to recommended Mitigation Measures C-1 through C-4 are not easily quantifiable; however, implementation of such measures would minimize and reduce the adverse but less than significant construction related noise at nearby office and commercial/retail uses.

b. Operation

As discussed above, no mitigation measures are required during project operations as no significant impacts would occur.

IV. ENVIRONMENTAL IMPACT ANALYSIS
D. TRANSPORTATION

1. INTRODUCTION

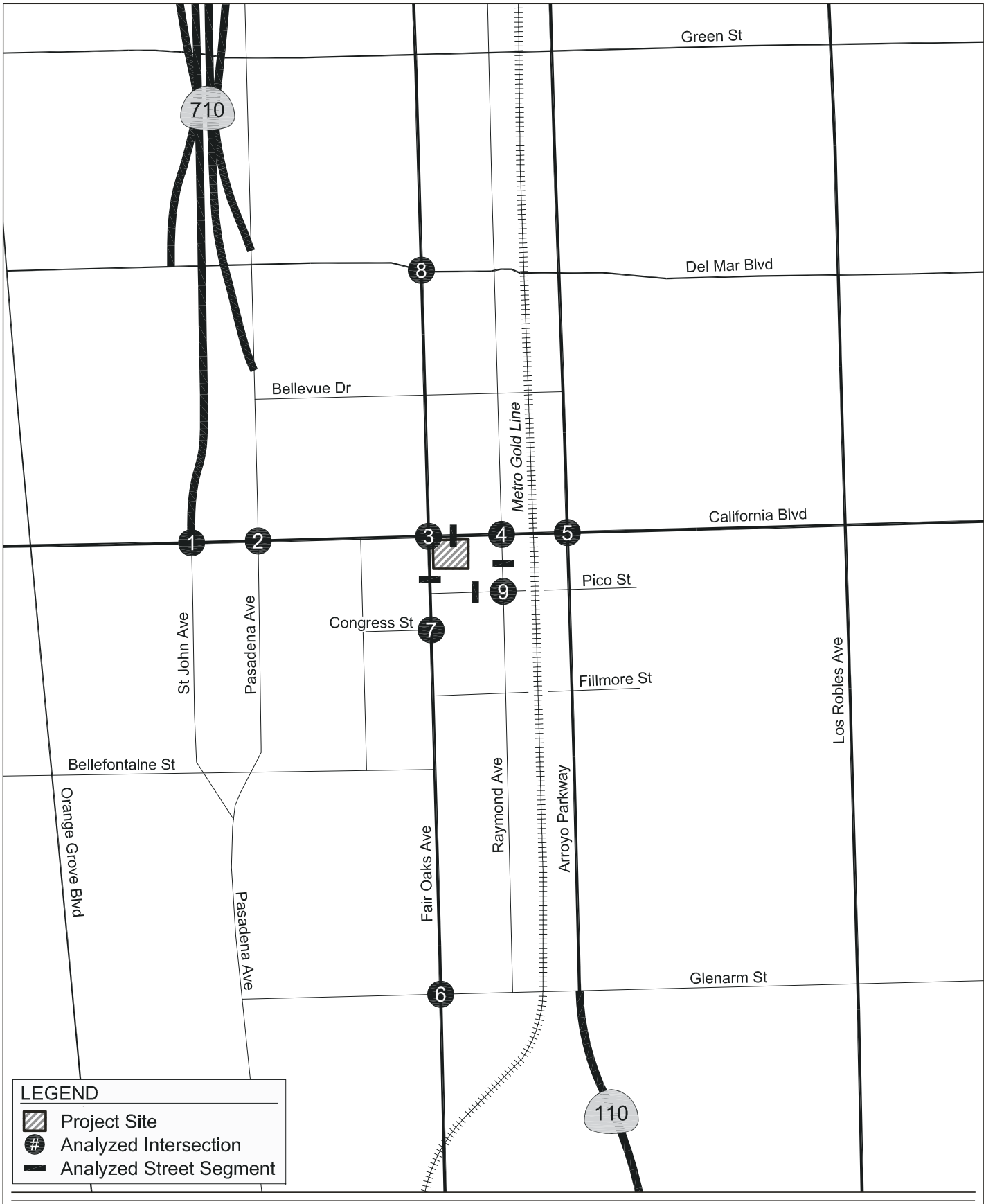
This section of the EIR provides an analysis of potential impacts associated with project access and traffic, including impacts to intersections and roadway segments. Where impacts are identified as significant mitigation measures are proposed. This section is based upon the *Traffic and Parking Study for the California Fair Oaks Office Building 590-612 South Fair Oaks Avenue, 12-26 East California Boulevard Pasadena, California* (herein referred to as "Traffic Study"), prepared by Fehr & Peers in September 2008 and provided as Appendix E of this EIR. The Traffic Study follows applicable methodology specified by the City of Pasadena and has been reviewed and approved by the City of Pasadena, Department of Transportation. The projected completion date of the proposed project is 2010. Thus, the impact analysis examines future conditions in 2010 both with and without the proposed project.

2. ENVIRONMENTAL SETTING

a. Study Area Street System

The project site is bounded by California Boulevard on the north, Edmondson Alley on the east, and Fair Oaks Avenue on the west. The street system in the study area is illustrated in Figure IV.D-1 on page IV.D-2. Primary regional access to the area is provided by the Foothill Freeway (I-210), which runs east-west approximately 1.5 miles north of the project site; the Pasadena Freeway (SR-110), which runs north-south approximately one-half mile south of the project site and ends at the intersection of Glenarm Street & Arroyo Parkway; and the Ventura Freeway (SR-134), which runs east-west approximately 1.5 miles northwest of the project site.

Fair Oaks Avenue is a north-south minor arterial facility providing access to the Foothill Freeway. California Boulevard is an east-west minor arterial facility that traverses the southern portion of the City of Pasadena. Pico Street is an east-west local street located to the south of the site that provides two travel lanes and on-street parking in each direction. Edmondson Alley along the site's eastern boundary is approximately 20 feet wide and provides north-south access to land uses along the block between California Boulevard and Pico Street. Additional streets serving the project site and the surrounding study area include Raymond Avenue and Arroyo Parkway running north-south, and Del Mar Boulevard, Congress Street and Glenarm Street running east-west.



Source: Fehr & Peers, 2008.

Figure IV.D-1
Study Area Intersections and Street Segments

This analysis includes the review of the following four street segments:

- Raymond Avenue between California Boulevard and Pico Street;
- Pico Street between Raymond Avenue and Edmondson Alley;
- Fair Oaks Avenue between California Boulevard and Pico Street; and
- California Boulevard between Fair Oaks Avenue and Edmondson Alley.

Please refer to Table 1 in the Traffic Study for a description of the existing surface street characteristics of the study area roadways (e.g., number of lanes, parking restrictions and speed limits).

The study area intersections evaluated for weekday A.M. and P.M. peak hour traffic in the vicinity of the proposed project include the following nine intersections (refer to Figure IV.D-1):

1. California Boulevard & St. John Avenue
2. California Boulevard & Pasadena Avenue
3. California Boulevard & Fair Oaks Avenue
4. California Boulevard & Raymond Avenue
5. California Boulevard & Arroyo Parkway
6. Fair Oaks Avenue & Glenarm Street
7. Fair Oaks Avenue & Congress Street
8. Fair Oaks Avenue & Del Mar Boulevard
9. Raymond Avenue & Pico Street

Diagrams of the existing intersection lane configurations for the nine study intersections are contained in Appendix A of the Traffic Study.

b. Existing Traffic Conditions

(1) Existing Peak Hour Traffic Volumes

The year 2008 traffic volumes were developed from 2004-2007 traffic counts. These volumes were factored by a 1.5 percent annual growth rate to approximate 2008 volumes.[1] The existing peak hour turning movements at the analyzed intersections are illustrated in Figure IV.D-2 on page IV.D-5.

(2) Existing Peak Hour Intersection Levels of Service

Level of service (LOS) is a qualitative measure used to describe the condition of traffic flow at an intersection. LOS ranges from excellent conditions at LOS A to overloaded conditions at LOS F. An intersection's volume-to-capacity (V/C) ratio is used to assess the LOS at signalized intersections. LOS definitions for signalized intersections are listed in Table IV.D-1 on page IV.D-6.

The intersections of Fair Oaks Avenue & Fillmore Street, and Fair Oaks & Congress Street are controlled by stop signs on the minor streets. All other study intersections are controlled by traffic signals. The Intersection Capacity Utilization (ICU) method of intersection analysis, per the City of Pasadena's requirements for analyzing intersection conditions, was used to determine the intersection V/C ratio and corresponding LOS for each study intersection. A capacity of 1,700 vehicles per lane per hour was assumed in the capacity calculations, in accordance with City of Pasadena policy.

The weekday A.M. and P.M. peak hour turning movements were used in conjunction with the LOS methodology described above to determine existing operating conditions at each study intersection. LOS calculation worksheets are included in Appendix B of the Traffic Study.

Table IV.D-2 on page IV.D-7 summarizes the existing weekday A.M. and P.M. peak hour V/C ratio or delay and corresponding LOS for nine study intersections. The intersection of Pasadena Avenue and California Boulevard operates at LOS E during the P.M. peak hour. All other study intersections operate at acceptable levels (LOS D or better) during both of the peak hours.

[1] *1.5 percent annual growth rate from Transportation Impact Review Current Practice & Guidelines, City of Pasadena, 2005.*

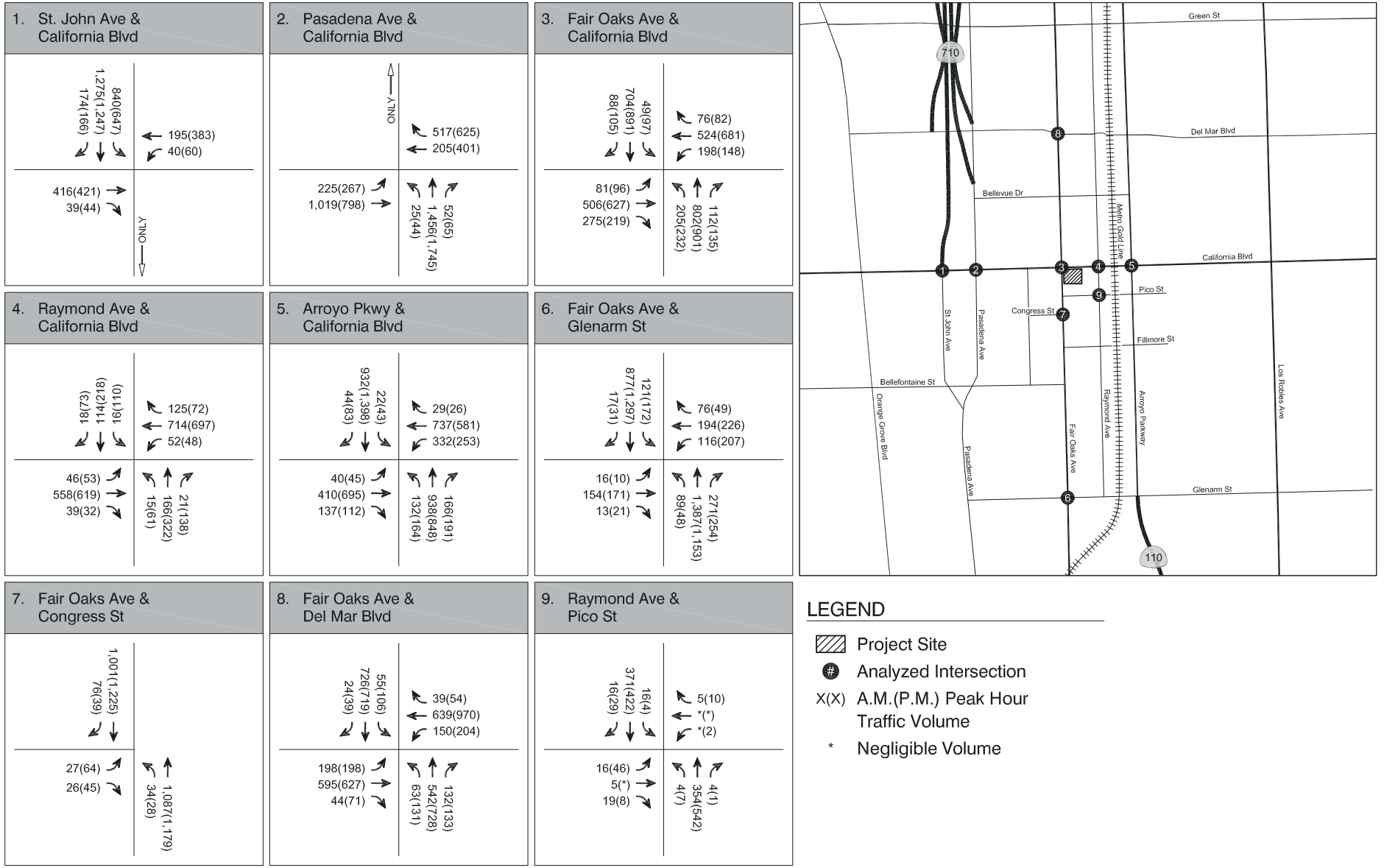


Figure IV.D-2
Existing Peak Hour Traffic Volumes

Source: Fehr & Peers, 2008.

Table IV.D-1

Level of Service Definitions for Signalized Intersections

Level of Service	Intersection Capacity Utilization	Definition
A	0.000-0.600	EXCELLENT. No Vehicle waits longer than one red light and no approach phase is fully used.
B	0.601-0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701-0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801-0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901-1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	>1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

Source: Transportation Research Board, Highway Capacity Manual, Special Report 209, 1994.

c. Regulatory Framework

(1) Congestion Management Program

To address the increasing public concern that traffic congestion was impacting the quality of life and economic vitality of the State of California, the Congestion Management Program (CMP) was enacted by Proposition 111. The intent of the CMP is to provide the analytical basis for transportation decisions through the State Transportation Improvement Program (STIP) process. A Countywide approach has been established by the Los Angeles County Metropolitan Transportation Authority (METRO), the Local CMP agency, to implement the statutory requirements of the CMP. The Countywide approach includes designating a highway network that includes all state highways and principal arterials with the County and monitoring the network's Level of Service standards. This monitoring of the CMP network is one of the responsibilities of local jurisdictions. If LOS standards deteriorate, then local jurisdictions must prepare a deficiency plan to be in conformance with the Countywide plan.

All development projects which are required to prepare an EIR are subject to the Land Use Analysis program of the CMP. This requirement is to provide decision-makers with the project-specific traffic impacts created by large projects on the CMP highway network.

Table IV.D-2

Existing Conditions Levels of Service (Year 2008)

No.	Intersection	A.M. Peak Hour		P.M. Peak Hour	
		ICU/Delay[a]	LOS	ICU/Delay[a]	LOS
1	St. John Ave. and California Blvd.	0.702	C	0.638	B
2	Pasadena Ave. and California Blvd.	0.782	C	.0930	E
3	Fair Oaks Ave. and California Blvd.	0.669	B	0.759	C
4	Raymond Ave. and California Blvd.	0.351	A	0.486	A
5	Arroyo Pkwy. and California Blvd.	0.635	B	0.789	C
6	Fair Oaks Ave. and Glenarm St.	0.777	C	0.800	C
7	Fair Oaks Ave. and Congress St.	0.403	A	0.476	A
8	Fair Oaks Ave. and Del Mar Blvd.	0.623	B	0.782	C
9	Raymond Ave. and Pico St.	0.195	A	0.248	A

Source: Traffic And Parking Study for the California Fair Oaks Office Building 590-612 South Fair Oaks Avenue, 12-26 East California Boulevard Pasadena, California, prepared by Fehr & Peers, September 2008.

3. ENVIRONMENTAL IMPACTS

a. Methodology

(1) Construction Traffic

The analysis of construction traffic includes an evaluation of construction- related trips (i.e., construction worker trips and construction truck trips) and practices that would occur with project implementation. The evaluation qualitatively evaluates construction traffic impacts in recognition of standard City of Pasadena construction requirements.

(2) Street System

In order to evaluate potential impacts of the proposed project on the street system, it was necessary determine the project's trip generation, trip distribution, and trip assignment. Then, estimates of future traffic conditions in the study area both with and without the project were determined. Future (2010) traffic volumes were first estimated for the study area without the project. These future forecasts reflect traffic increases due to general regional growth and traffic generated by other expected developments in the vicinity of the project. They represent the 2010 Without Project conditions. The additional traffic expected to result from the proposed project was then estimated and separately assigned to the surrounding street system. The sum of the 2010 Without Project condition and project-generated traffic represents the 2010 With Project condition.

(a) Intersections

The analysis compares the forecasted LOS at each study intersection under both 2010 Without and With Project conditions to determine potential impacts using significance criteria established by the City of Pasadena. The intersection significance criteria are identified in the Thresholds of Significance section, below.

(b) Roadway Segments

Daily volumes on each of the four study area street segments were estimated from existing turning movement volumes. These daily volumes were subsequently increased to reflect the year 2010 Without Project condition based on growth projections from the City's General Plan. The Project's daily volumes were estimated based on the project trip generation and distributed on the street system.

The study area street segments are analyzed under 2010 Without Project and With Project conditions, much like the intersection analyses. According to City of Pasadena requirements, project-related impacts to roadway segments are based on the percentage increase in daily volumes on study area street roadway segments during the project year due to project traffic. A project is required to provide mitigation for impacts based on the City's defined threshold levels.

(3) Congestion Management Program

Additional intersection analyses were conducted to comply with the requirements in the Los Angeles County 2004 CMP. The Transportation Impact Analysis (TIA) section in the CMP describes the threshold criteria used to identify potential CMP monitoring locations that should be included in the traffic analysis. According to the CMP criteria, the following locations must be analyzed:

- All CMP arterial monitoring intersections, including monitored freeway on- or off-ramp intersections, where the proposed project will add 50 or more trips during either the A.M. or P.M. weekday peak hours (of adjacent street traffic)

- All mainline freeway monitoring locations where the project will add 150 or more trips, in either direction, during either the weekday A.M. or P.M. peak hours

b. Threshold of Significance

(1) Construction Traffic

The proposed project would result in a significant construction traffic impact if it would cause a substantial temporary inconvenience or hazardous condition.

(2) Intersections

Table IV.D-3 on page IV.D-10 illustrates the criteria established by the City of Pasadena Department of Transportation to determine if a project has a significant traffic impact at a specific intersection. As shown in the table, the City criteria are based on project-related increases in V/C in relation to the intersection level of service under existing conditions.

(3) Roadway Segments

Table IV.D-4 on page IV.D-10 illustrates the criteria established by the City of Pasadena Department of Transportation to determine if a project has a significant traffic impact along a specific roadway segment. As shown in the table, a street segment is deemed significantly impacted based on an increase in the projected average daily traffic (ADT) volumes.

(4) Congestion Management Program

A significant CMP traffic impact is deemed to occur if the project increases traffic demand on a CMP facility by two percent of its capacity and/or causes or worsens a LOS F condition, as demonstrated by a TIA. A TIA must be considered if the project adds 150 or more peak-hour trips on any freeway segment, in either direction. Additionally, an analysis is required at all CMP arterial intersections where the project would add 50 or more trips during either the A.M. or P.M. peak hour.

(5) Access

A significant traffic impact would occur with respect to access if as a result of the project, access to or from the site would create or substantially increase hazards to pedestrians or vehicles.

Table IV.D-3

City of Pasadena Intersection Impact Criteria

Intersection Level of Service under Current Conditions	Project-Related Increase in V/C
A	0.06
B	0.05
C	0.04
D	0.03
E	0.02

Source: Traffic And Parking Study for the California Fair Oaks Office Building 590-612 South Fair Oaks Avenue, 12-26 East California Boulevard Pasadena, California, prepared by Fehr & Peers, September 2008.

Table IV.D-4

City of Pasadena Roadway Segment Impact Criteria

Average Daily Traffic (ADT) Growth on Street Segment	Required Traffic Mitigation
0.0% - 2.4% ADT Growth	▪ Staff review
2.5% - 4.9% ADT Growth	▪ Soft mitigation required ▪ Transportation Demand Management (TDM), Rideshare, etc.
5.0% - 7.4% ADT Growth	▪ Soft mitigation required ▪ Physical mitigation may be required ▪ Project alternatives considered
7.5% + ADT Growth	▪ Soft mitigation required ▪ Extensive physical mitigation required ▪ Project alternatives considered

Source: Traffic And Parking Study for the California Fair Oaks Office Building 590-612 South Fair Oaks Avenue, 12-26 East California Boulevard Pasadena, California, prepared by Fehr & Peers, September 2008.

c. Project Features

There are two main access points to the site. A one-way driveway runs west to east across the southern portion of the site, connecting Fair Oaks Avenue with Edmondson Alley. In order to avoid congestion and pedestrian/vehicular conflicts on Fair Oaks Avenue, the driveway has been configured to provide over 180 feet of on-site queuing. The second access to the site is off of Edmondson Alley approximately 40 feet north of the one-way driveway. Edmondson Alley is assumed to be used for two-way travel providing access to California Boulevard to the north and Pico Street to the south and to access the parking structure. To help accommodate additional traffic associated with the proposed project, the 305 foot section of Edmondson Alley

adjoining the project site between California Boulevard and Pico Street is proposed to be widened four feet from 20 feet to 24 feet to serve vehicle traffic from the north and south.

The project would implement City requirements and restrictions regarding construction phase parking, trips and staging as part of a Construction Staging and Traffic Management Plan, which is a standard City requirement of construction projects. The plan would document the project's various phases for construction (demolition, excavation, grading, concrete work , wood framing, etc.) estimated start and completion date, define and approve work hours, identify the on-site superintendent, identify acceptable truck routes, provide traffic control and parking measures, and other information specific to the various phases of construction. As part of the Construction Staging and Traffic Management Plan, the following practices are anticipated, but would not necessarily be limited to:

- Construction-related trips restricted to off-peak commuter periods;
- Delivery trucks/construction equipment would be brought onto the project site and stored within the perimeter fence of the construction site, or on another site deemed acceptable by the City;
- Existing access for land uses in proximity of the project site would be maintained;
- Any potential lane closures would be limited to off-peak travel periods, when feasible;
- Deliveries would be coordinated to reduce the potential of trucks waiting to unload for extended periods of time; and
- Parking by construction workers would be prohibited on adjacent streets and construction workers would be directed to park on-site or at available parking as determined in conjunction with City staff.

The Construction Staging and Traffic Management Plan would be reviewed and approved by the City of Pasadena Department of Public Works.

The project would also implement a Transportation Demand Management (TDM) Plan to address long-term operational traffic impacts consistent with the applicable requirements of Section 10.64.020, Transportation Demand Management Program Plan, of the City of Pasadena Municipal Code. This section of the Municipal Code requires that TDM Program Plans be reviewed and approved by the Director of Transportation prior to the issuance of a building

permit and thereafter be reviewed and approved annually. As part of the TDM Plan, the following practices are anticipated, but would not necessarily be limited to:

- A minimum of 10% of the employee parking spaces will be reserved for and designated as preferential parking for carpool and van pool vehicles.
- Bicycle parking and a shower will be provided.
- The Project will provide a transportation information display area, which will include Employee Transportation Coordinator's telephone number, Guaranteed Ride Home Program, current local and regional transit routes, schedules and maps serving the development; ridesharing marketing materials on alternative commute modes; bicycle routes and bicycle facility information.
- Wayfinding signage and transit options will be posted at the elevator lobbies of the parking structure, in order to make drivers aware of routes and transit opportunities.
- A transit riding incentive program will be implemented during the first year to provide greater exposure to transit opportunities and benefits to employees who might otherwise not use transit. This program will include financial incentives, subsidized transit passes and access to a transit coordinator who can facilitate providing employees information with the best transit routes from their homes to the Project site.

~~This Construction Staging and Traffic Management Plan would be reviewed and approved by the City of Pasadena Department of Public Works~~.

d. Analysis of Project Impacts

(1) Construction Traffic

The number of construction workers and trucks would vary throughout the construction process in order to maintain a reasonable schedule of completion. As described above, the project would be required to prepare and implement a Construction Staging and Traffic Management Plan. As part of the plan, construction-related trips would be limited to off-peak commuter periods. Hence, construction-related trips would arrive and depart the site during off-peak hours (i.e., arrive prior to 7:00 A.M. and depart between 3:00 to 4:00 P.M.) thereby avoiding the generation of trips during the 7:00 to 9:00 A.M. and 4:00 to 6:00 P.M. peak traffic periods. Consequently, the impact on peak-hour traffic in the vicinity of the site would be less than significant.

As part of the Construction Staging and Traffic Management Plan, parking by construction workers would be prohibited on adjacent streets and construction workers would be directed to park on-site or at available parking as determined in conjunction with City staff. Thus, construction activities are not anticipated to result in short-term parking conflicts or impacts in the immediate project vicinity.

It is also anticipated that delivery trucks/construction equipment would be brought onto the project site and stored within the perimeter fence of the construction site or on another site deemed acceptable by the City. Thus, no staging would occur on public streets. In addition, any lane closures would be limited to off-peak travel periods, except as may be occasionally required to accommodate construction at the perimeter of the project site.

With implementation of the construction-related measures identified in the Construction Staging and Traffic Management Plan, construction activities are not anticipated to cause substantial temporary inconveniences or hazardous conditions on local roadways. Therefore, construction-related traffic impacts are concluded to be less than significant.

(2) Street System

(a) Project Traffic Generation, Distribution and Assignment

(i) Project Trip Generation

Trip Generation, 7th Edition (Institute of Transportation Engineers, 2003), a national standard used universally by the traffic engineering profession, was used to estimate the number of trips generated by the proposed land uses and existing land uses which would be replaced by the project. Table 5 in the Traffic Study provides a summary of the project trip generation estimates and rates. The project is expected to generate a total of 1,246 weekday daily trips, including 175 weekday A.M. peak hour trips, and 169 weekday P.M. peak hour trips. Applying a 10 percent credit for Transportation Demand Management (TDM) and a credit for a previous land use (6,525 sf restaurant) and for the active commercial land uses (based on 2008 driveway counts), the total net trip generation is 253 daily trips, including 113 additional A.M. peak hour tips and 40 additional P.M. peak hour trips.

(ii) Project Traffic Distribution

The geographic distribution patterns for the proposed project are based on the Pasadena General Plan Model. Using the model results, it was calculated that for the office land use, 25 percent of the trips would come from the north, 23 percent from the east, 28 percent would come from the south, and 24 percent would come from the west. Figure 5 in the Traffic Study

illustrates the general trip distribution pattern within the study area. Figure 6 in the Traffic Study illustrates the projected trip distribution pattern through the nine study intersections.

(iii) Project Traffic Assignment

Using the estimated trip generation and the distribution pattern developed above, the traffic generated by the proposed project was assigned to the street network. Figure IV.D-3 on page IV.D-15 illustrates the proposed project-generated peak hour traffic volumes for both peak hours at each of the nine study intersections.

(b) Year 2010 Conditions

(i) Year 2010 Without Project Traffic Volumes

The Year 2010 Without Project condition includes two elements. The first element is the growth in existing background traffic volumes reflecting the effects of overall regional growth and development both inside and outside the study area. The second element is the traffic generated by identified related projects located within or near the study area.

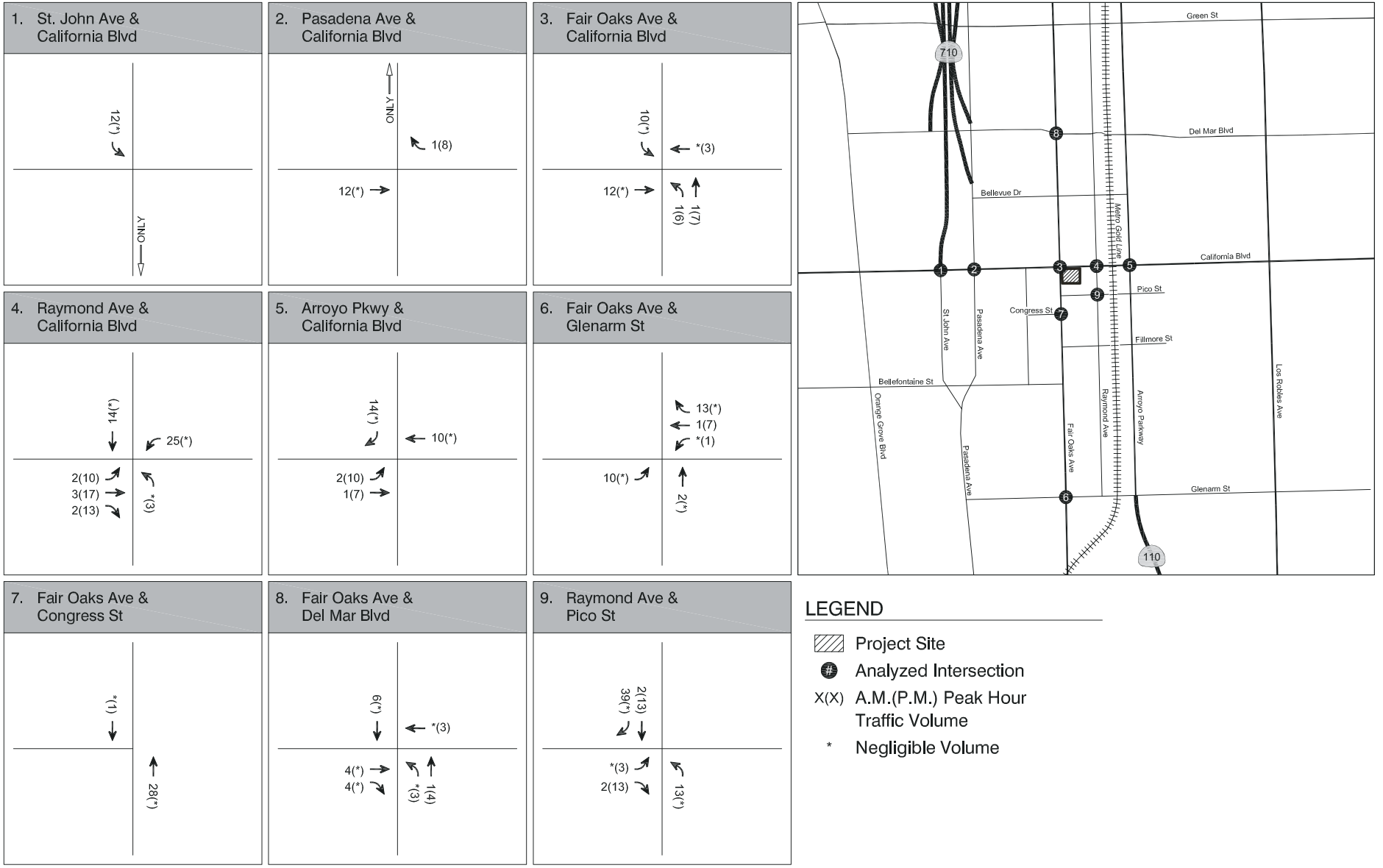
The 2008 traffic volumes were increased by three percent (1.5 percent per year) to reflect regional traffic growth for the year 2010 Without Project condition. The Year 2010 Without Project conditions includes the effects of specific related development projects, expected to be built in the vicinity of the proposed project site prior to the buildout date of the proposed project. The list of related projects was based on data from the City of Pasadena. A total of 10 related projects were identified in the study area and are listed in Table III-1 on page III-9. The resulting traffic volumes, representing the Year 2010 Without Project condition, are presented in Figure IV.D-4 on page IV.D-16.

(ii) Year 2010 With Project Traffic Volumes

The project-generated traffic volumes were added to the Year 2010 Without Project condition to yield the Year 2010 With Project condition. Figure IV.D-5 on page IV.D-17 illustrates the forecasted Year 2010 With Project condition A.M. and P.M. peak hour traffic volumes at each of the study intersections.

(c) Intersection Impacts

Table IV.D-5 on page IV.D-18 summarizes the intersections levels of service under Year 2010 With Project and Without Project conditions. Included in the table is the change in V/C due to the addition of project-related traffic. For both A.M. and P.M. peak hour conditions, a

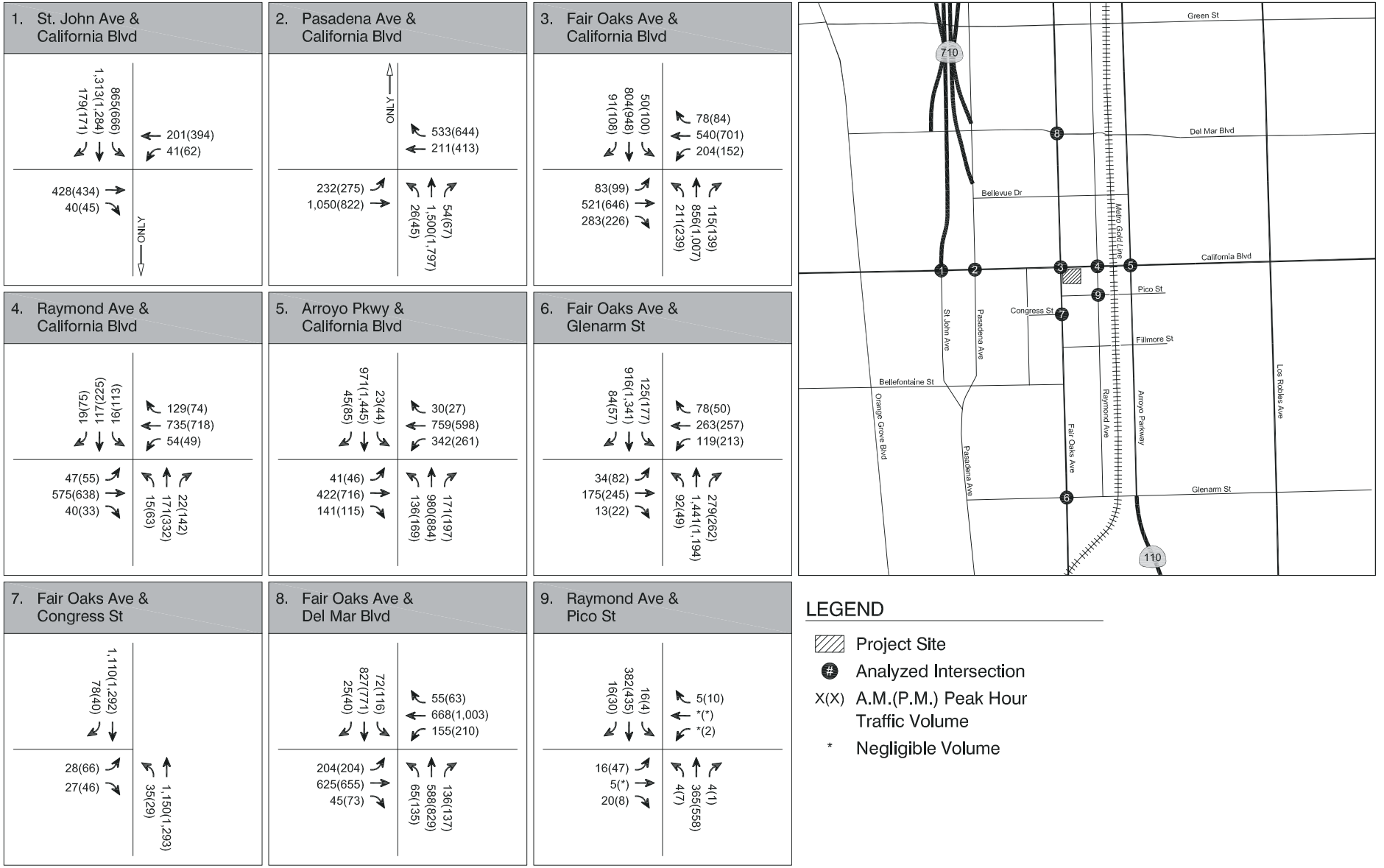


PCR

Not to scale

Source: Fehr & Peers, 2008.

Figure IV.D-3
Project Only Peak Hour Traffic Volumes



Source: Fehr & Peers, 2008.

Figure IV.D-4
Year 2010 Without Project Traffic Volumes

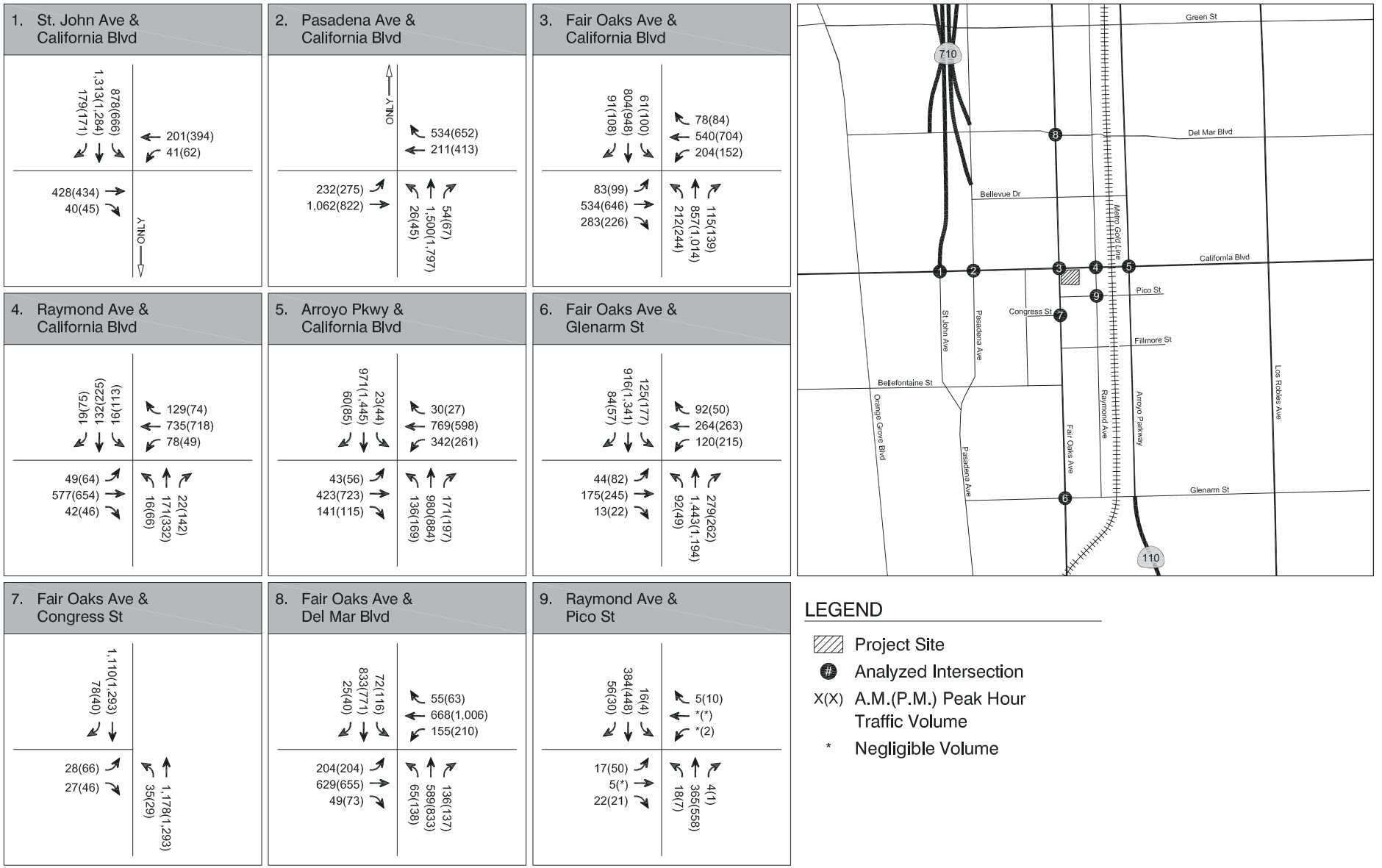


Figure IV.D-5
Year 2010 With Project Traffic Volumes

Source: Fehr & Peers, 2008.

Table IV.D-5

Intersections Levels of Service Analysis - Year 2010 Conditions

No.	Intersection	Peak Hour	Existing LOS	2010 Without Project V/C	2010 Without Project LOS	2010 With Project V/C	2010 With Project LOS	Change in V/C	Sig. Impact?
1	St. John Ave. and California Blvd.	A.M.	C	0.721	C	0.728	C	0.007	No
		P.M.	B	0.655	B	0.655	B	0.000	No
2	Pasadena Ave. and California Blvd.	A.M.	C	0.805	E	0.805	D	0.000	No
		P.M.	E	0.956	E	0.961	E	0.005	No
3	Fair Oaks Ave. and California Blvd.	A.M.	B	0.710	C	0.715	C	0.005	No
		P.M.	C	0.791	C	0.795	C	0.004	No
4	Raymond Ave. and California Blvd.	A.M.	A	0.360	A	0.361	A	0.001	No
		P.M.	A	0.498	A	0.504	A	0.006	No
5	Arroyo Pkwy. and California Blvd.	A.M.	B	0.564	B	0.657	B	0.003	No
		P.M.	C	0.814	D	0.816	D	0.002	No
6	Fair Oaks Ave. and Glenarm St.	A.M.	C	0.851	D	0.865	D	0.014	No
		P.M.	C	0.864	D	0.865	D	0.001	No
7	Fair Oaks Ave. and Congress St.	A.M.	A	0.436	A	0.436	A	0.000	No
		P.M.	A	0.498	A	0.498	A	0.000	No
8	Fair Oaks Ave. and Del Mar Blvd.	A.M.	B	0.672	B	0.673	B	0.001	No
		P.M.	C	0.836	D	0.837	D	0.001	No
9	Raymond Ave. and Pico St.	A.M.	A	0.198	A	0.221	A	0.023	No
		P.M.	A	0.253	A	0.261	A	0.008	No

Source: Traffic And Parking Study for the California Fair Oaks Office Building 590-612 South Fair Oaks Avenue, 12-26 East California Boulevard Pasadena, California, prepared by Fehr & Peers, September 2008.

determination of significance is provided based on the City's intersection impact criteria shown in Table IV.D-3. Similar to existing conditions, under the 2010 Without Project condition, the following intersection would operate at a poor LOS:

- Pasadena Avenue and California Boulevard at LOS E (P.M. peak hour)

All other study intersections would operate at LOS D or better during both of the peak hours.

Based on the City of Pasadena's impact criteria, the proposed project traffic would not result in V/C increases large enough to result in significant impacts at the Pasadena Avenue and California Boulevard intersection or any of the study intersections during either of the peak hours.

(d) Roadway Segment Impacts

Using the threshold criteria established by the City of Pasadena (refer to Table IV.D-4), Table IV.D-6 on page IV.D-20 shows the daily traffic analysis which identifies the project's weekday street segment impacts. The proposed project is expected to increase daily traffic on Pico Street, west of Raymond Avenue by 8.4 percent. Although daily traffic volumes on the street would remain modest under the 2010 With Project condition, and the adjacent intersection at Raymond Avenue is projected to operate smoothly at LOS A during both peak hours, the estimated 8.4 percent increase in daily traffic on Pico Street would be a significant impact requiring mitigation based on the City's street segment significance criteria.

(e) Regional Transportation System Impacts

The nearest CMP monitoring intersection is at Arroyo Parkway & California Boulevard, and the three nearest CMP freeway monitoring locations are:

- I-210 Freeway at Rosemead Boulevard
- I-210 Freeway at Ventura Freeway 134
- Pasadena Freeway 110 at Pasadena Avenue

The project would add 27 A.M. peak hour and 17 P.M. peak hour trips at Arroyo Parkway and California Boulevard intersection. Thus, the project does not satisfy the CMP threshold criteria of adding 50 or more weekday trips during either the A.M. or P.M. peak hours to prepare a TIA for a CMP monitoring intersection. In addition, by adding fewer than 50 trips at any of the three CMP freeway monitoring locations, the project would not surpass the CMP threshold criteria of adding 150 or more trips in either direction during either the weekday A.M. or P.M. peak hours to prepare a TIA. Therefore, the project would have a less than significant impact on the CMP system and no further analysis is required.

(f) Access

One of the project's access driveways would occur via a one-way driveway running west to east across the southern portion of the site, connecting Fair Oaks Avenue with Edmondson Alley. As previously stated, the driveway would provide over 180 feet of on-site queuing. The project would also provide access via California Boulevard to Edmondson Alley. The alley would allow vehicles entering the site to queue within the alley prior to entering the project's parking structure, rather than along California Boulevard during peak traffic hours. To maintain the current service ability of the alley, the project includes a dedication of land at the rear of the

Table IV.D-6

Street Segment Impact Analysis

	Weekday 2-Way Daily Volume					Impact Analysis				
Street Segment	**Existing 2008**	**Ambient Growth[a]**	**2010 Without Project**	**Project Only**	**2010 With Project**	**Increase (%)**	**Soft Mitigation Criteria**	**Impacts**	**Physical Mitigation Criteria**	**Impacts**
1. Raymond Ave. between California Blvd. and Pico St.	13,163	10%	14,479	77	14,556	0.5%	2.5%	No	5.0%	No
2. Pico St. between Raymond Ave. and Edmondson Alley	1,125	1%	1,136	94	1,230	8.2%	2.5%	Yes	5.0%	Yes
3. Fair Oaks Blvd. between California Blvd. and Pico St.	26,100	2%	26,662	23	26,645	0.1%	2.5%	No	5.0%	No
4. California Blvd. between Fair Oaks Ave. and Edmondson Alley	22,125	2%	22,568	33	22,600	0.1%	2.5%	No	5.0%	No

[a] *Growth rate based on the City of Pasadena General Plan Mobility Element forecast model.*

Source: Traffic And Parking Study for the California Fair Oaks Office Building 590-612 South Fair Oaks Avenue, 12-26 East California Boulevard Pasadena, California, prepared by Fehr & Peers, September 2008.

site for the purposes of alley widening in compliance with a Department of Public Works requirement.

In addition to providing on-site queuing, designing the parking structure off of Edmondson Alley provides multiple opportunities for site ingress and egress. Vehicles would access Edmondson Alley off of Pico Street, California Boulevard or Fair Oaks Avenue. Vehicles would leave the site via California Boulevard or Pico Street to access various other streets, thus providing multiple options after exiting the site.

Vehicular access to the project site will be taken from Edmondson Alley. Alleys are designed to provide access for loading and unloading of vehicles to alleviate traffic along major arterials, and thus slower and more congested conditions on alleys are expected and tolerated. Access to the project site through the alley utilizes the alley for that specific purpose, and takes slow moving entrance/exit traffic off of Fair Oaks, thus reducing traffic/pedestrian conflicts and safety concerns on Fair Oaks. To maintain the current service ability of the alley, the Department of Public Works will be requiring a dedication of land at the rear of the site for the purposes of alley widening.

Overall, the design of the project would minimize off-site queuing, maintain satisfactory service ability for the alley, and would not introduce project access features that would create or substantially increase hazards to pedestrian or vehicles. Therefore, impacts related to project access are concluded to be less than significant.

4. MITIGATION MEASURES

a. Construction

Less than significant impacts with regard to construction traffic would occur with project implementation. Therefore, no mitigation measures are required.

b. Operation

(1) Intersections

Less than significant impacts to intersections would occur with project implementation. Therefore, no mitigation measures are required.

(2) Street Segments

The City applies "soft" mitigation measures to street segment impacts that range between 2.5 percent - 7.5 percent ADT growth, but only where the segment impacts are below 4.9 percent ADT growth is soft mitigation considered enough to reduce the impact to below a level of significance. Here, the segment impact is at a level where physical mitigation would be required to reduce the impact to below a level of significance. However, Pasadena DOT has determined that there are no feasible physical mitigation measures to reduce the segment impact on Pico Street to below levels of significance. Physical mitigation measures such as capacity enhancement will not change the outcome of estimated increase in traffic. Furthermore, physical prohibition of the project trips from the alley to Pico Street would have a detrimental impact on traffic circulation of the adjacent streets. Pico Street is a discontinuous local street between Fair Oaks Avenue and Gold Line tracks to the east. The current traffic volumes on Pico Street are insignificant and expected to increase moderately in the future. Accordingly, the following measure is applied, and in the City's methodology it reduces the impact to the extent feasible. The proposed mitigation measure would not fully mitigate the impact along Pico Street to a less than significant level, but is rather intended to aid in monitoring traffic in the area to assess intrusion of traffic into the adjacent neighborhoods, and as such, the impact would be significant and unavoidable.

Mitigation Measure D-1: Pico Street between Raymond Avenue and Edmondson Alley – In order to address increased traffic volumes on Pico Street associated with the proposed project the applicant shall provide a contribution to the citywide traffic monitoring program to purchase and install two traffic monitoring stations on Pico Street.

(3) Regional Transportation System

Project impacts on the regional transportation system would be less than significant. Therefore, no mitigation measures are required.

5. CUMULATIVE IMPACTS

All of the identified related projects (shown in Table III-1 in Section III.B, Environmental Setting) have been considered for the purposes of assessing cumulative traffic impacts. Cumulative construction traffic impacts would be temporary and would only occur during periods when construction of one or more of the related projects is occurring at the same time as project construction, and then only to the extent that construction traffic is traveling on the same streets at the same time. In such an event, potential cumulative construction traffic

impacts associated with related projects and the proposed project would be addressed through preparation and implementation of a Construction Staging and Traffic Management Plan as required by and subject to review and approval by the City of Pasadena Department of Public Works. If cumulative construction traffic impacts occur, the project's contribution to such impacts would not be considerable given the City requirement for off-peak construction trips and implementation of a Construction Staging and Traffic Management Plan. Accordingly, cumulative construction impacts would be less than significant.

Cumulative effects on intersection and street segment operations attributable to traffic from ambient growth and related projects have been incorporated into the above analysis. As described under the Year 2010 With Project condition with implementation of the prescribed mitigation measure, cumulative development and project-generated traffic would not exceed the City's established traffic impact threshold for any of the study area roadway segments or intersections. Thus, less-than-significant cumulative impacts regarding traffic would occur with project implementation.

6. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Project implementation would result in one significant and unavoidable roadway segment impact at Pico Street between Raymond Avenue and Edmondson Alley.

IV. ENVIRONMENTAL IMPACT ANALYSIS
E. HAZARDOUS MATERIALS

1. INTRODUCTION

This section provides an analysis of potential hazards and hazardous materials impacts that could occur with implementation of the proposed Project. The analysis is based on the *Phase I and Limited Phase II Environmental Site Assessment (ESA) on the Property Composed of Assessor's Parcel Numbers 5720-001-001, 5720-001-002, 5720-001-003, 5720-001-004 and 5720-001-005 at 590 and 592 South Fair Oaks Avenue and 10 and 28 E. California Boulevard* prepared by Carlin Environmental Consulting, Inc. (CEC) on May 3, 2007. The ESA was prepared in accordance with the "Standard Practice for Environmental Site Assessments, Phase I Environmental Site Assessment Process," presented by the American Society for Testing and Materials (ASTM Standard E 1527-05). The Phase I and Limited Phase II ESA evaluate the presence of known or suspected hazardous materials or wastes on the project site, which may have the potential to adversely impact the site's environmental integrity. In addition, this section incorporates the analysis and findings in the *Report of Limited Environmental Subsurface Investigation, Limited Asbestos-Containing Materials Survey, and Limited Lead-Based Paint Survey, California and Fair Oaks Office Building* prepared by GeoDesign Inc on July 28, 2008. The reports referenced above are included in Appendix F of this EIR.

2. ENVIRONMENTAL SETTING

a. Regulatory Framework

(1) Hazardous Waste and Hazardous Materials Definitions

The Unites States Environmental Protection Agency (EPA) defines a hazardous waste as a substance that (1) may cause or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating reversible illness and (2) that poses a substantial present or potential future hazard to human health or the environment when it is improperly treated, stored, transported, disposed of or otherwise managed. Hazardous waste is also ignitable, corrosive, or reactive (explosive) (U.S. EPA 40 260.10). A material that contains defined amounts of toxic chemicals may also be classified as a hazardous material. The EPA has also developed a list of specific hazardous wastes that are in the form of solids, semi-solids, liquids, and gases.

The State of California defines hazardous materials as substances that are toxic, ignitable or flammable, reactive, and corrosive. The State also defines an extremely hazardous material as a substance that shows high acute or chronic toxicity, carcinogenicity (causes cancer), bioaccumulative properties (accumulates in the body's tissues), persistence in the environment, or is water active. Hazardous materials are extensively regulated by federal, State and local laws, and new regulations are constantly being developed as more is learned about the impact these substances have on human health and the environment.

(2) Federal, State and Local Regulations

The Federal Resource Conservation and Recovery Act (RCRA) (42 U.S.C. secs. 6901-6992k) regulates the generation, transportation, treatment, storage, and disposal of hazardous waste. Under RCRA regulations, hazardous wastes must be tracked from the time of generation to the point of disposal. At a minimum, each generator of hazardous waste must register and obtain a hazardous waste activity identification number. If hazardous wastes are stored for more than 90 days or treated or disposed of at a facility, any treatment, storage, or disposal unit must be permitted under RCRA.

RCRA allows individual states to develop their own program for the regulation of hazardous waste as long as it is at least as stringent as RCRA. The State of California has developed the California Hazardous Waste Control Law (HWCL) (Health and Safety Code sec. 25100 et seq. and 22 California Code of Regulations [CCR] sec. 66260.1 et seq.) and the USEPA has authorized RCRA enforcement to the State of California. Primary authority for the statewide administration and enforcement of HWCL rests with California EPA's (Cal-EPA) Department of Toxic Substances Control (DTSC). Thus, the DTSC has primary regulatory responsibility for hazardous waste management. The Office of Emergency Services (OES) also establishes regulations governing the use of hazardous materials in the State. The California Highway Patrol (CHP) and the California Department of Transportation (Caltrans) are the enforcement agencies for hazardous materials transportation regulations. Hazardous materials and waste transporters are responsible for complying with all applicable packaging, labeling, and shipping regulations.

The Federal Occupational Safety and Health Act of 1970, which is implemented by the Federal Occupational Safety and Health Administration (OSHA), contains provisions with respect to hazardous materials handling. Federal OSHA requirements, as set forth in 29 Code of Federal Regulations (CFR) Section 1910, et. seq., are designed to promote worker safety, worker training, and a worker's right–to-know.

The U.S. Department of Labor has delegated the authority to administer OSHA regulations to the State of California. The California OSHA program (Cal-OSHA) (codified in

the CCR, Title 8, or 8 CCR generally and in the Labor Code secs. 6300-6719) is administered and enforced by the Division of Occupational Safety and Health (DOSH). Cal-OSHA is very similar to the Federal OSHA program. For example, both programs contain rules and procedures related to exposure to hazardous materials during demolition and construction activities. In addition, Cal-OSHA requires employers to implement a comprehensive, written Injury and Illness Prevention Program (IIPP). An IIPP is an employee safety program for potential workplace hazards, including those associated with hazardous materials.

Enforcement of regulations has been delegated to local jurisdictions that enter into agreements with DTSC for the generation, transport, and disposal of hazardous materials under the authority of the HWCL. In January 1996, Cal/EPA adopted regulations implementing a "Unified Hazardous Waste and Hazardous Materials Management Regulatory Program" (Unified Program). The program addresses hazardous waste generators and hazardous waste on-site treatment, underground storage tanks (USTs) and above ground storage tanks (ASTs), hazardous material release response plans and inventories, risk management and prevention programs, and Uniform Fire Code (UFC) hazardous materials management plans and inventories. The Unified Program is implemented at the local level by a local agency: the Certified Unified Program Agency (CUPA). The CUPA is responsible for consolidating the administration of the six program elements within its jurisdiction.

The federal government and the State of California require all businesses that handle more than a specified amount of hazardous materials or extremely hazardous materials to submit a business plan to its local CUPA. The Pasadena Fire Department is the local CUPA for the project area. The City of Pasadena requires the preparation, submittal, and implementation of a business plan on a yearly basis if a business uses, stores, or manufactures a hazardous material in any amount. The business plan must include an inventory of the hazardous materials and set forth emergency response plans and procedures to be used in the event of a significant or threatened significant release of a hazardous material. The requirement of business plans is designed to be used by responding agencies, in this case the Pasadena Fire Department, and other supporting agencies, such as the Los Angeles County Fire Department, during a release to allow for a quick and accurate evaluation of each situation for an appropriate response.

The City of Pasadena General Plan, Safety Element identifies a specific goal and program related to hazardous materials that applies to the proposed Project as follows:[1]

- Goal H-1—Reduce the potential for hazardous contamination on the City.

[1] *Safety Element of the General Plan, City of Pasadena, California, prepared by Earth Consultants International, dated August 2002.*

- Program H-1.1—The City will continue the enforcement of disclosure laws that require all users, producers, and transporters of hazardous materials and wastes to clearly identify the materials that they store, use, or transport, and to notify the appropriate City, County, State and Federal agencies in the event of a violation.

(3) Polychlorinated Biphenyls

Polychlorinated Biphenyls (PCBs) are regulated by the USEPA under the Toxic Substance Control Act (TSCA). These regulations ban the manufacture of PCBs although the continued use of existing PCB-containing equipment is allowed. Transformer oil containing PCBs at a concentration exceeding five parts per million (ppm) is the California-regulated concentration for hazardous waste, though PCBs in transformer oil at a concentration up to 50 ppm are currently allowed in transformers in California. The TSCA also contains provisions controlling the continued use and disposal of existing PCB-containing equipment. In addition to TSCA, provisions relating to PCBs are contained in the HWCL, which lists PCBs as hazardous waste.

(4) Underground Storage Tanks

USTs are regulated under Subtitle I of RCRA and its regulations (40 CFR 280) which establish construction standards for new UST installations (those installed after December 22, 1988), as well as standards for upgrading existing USTs and associated piping. Since 1998, all non-conforming tanks were required to be either upgraded or closed.

The State regulates USTs pursuant to Health and Safety Code, Division 20, Chapter 6.7, and CCR Title 23, Division 3, Chapter 16 and Chapter 18. The State's UST program regulations include among others, permitting USTs, installation of leak detection systems and/or monitoring of USTs for leakage, UST closure requirements, release reporting/corrective action, and enforcement. Oversight of the statewide UST program is assigned to the State Water Resources Control Board (SWRCB) (23 CCR sec. 2610 et seq.), which has delegated authority to the Regional Water Quality Control Board (RWQCB) and typically on the local level, to the fire department. The LAFD administers and enforces Federal and State laws and local ordinances for USTs at the Project site. Plans for the construction/installation, modification, upgrade, and removal of USTs are reviewed by LAFD Inspectors.

(5) Asbestos Containing Materials

Asbestos is a naturally occurring mineral which is made up of microscopic fibers. Asbestos has unique qualities which include its strength, fire resistance, resistance to chemical

corrosion, poor conduction of heat, noise, and electricity, and low cost. Asbestos has been widely used in the building industry for a variety of uses, including acoustic and thermal insulation and fireproofing. It is often found in ceiling and floor tiles, linoleum, and pipes, as well as on structural beams and asphalt. However, asbestos can become a hazard when the fibers separate and become airborne. Asbestos has been linked with lung diseases caused by inhalation of airborne asbestos fibers.

Under the TSCA (40 CFR 763), the USEPA has enacted strict requirements on the use, handling, and disposal of ACM. These regulations include the phase out of friable asbestos and ACM in new construction materials beginning in 1979 (40 CFR 763). Friable asbestos may be found in pre-1979 construction.

California classifies ACM as hazardous waste if it is friable and contains one percent or more asbestos (CCR, Title 22, Section 66261.24). Non-friable bulk asbestos-containing waste is considered non-hazardous regardless of its asbestos content, so it is not subject to regulation under CCR, Title 22, Division 4.5. California, through DTSC, regulates the packaging, on-site accumulation, transportation, and disposal of asbestos when it is a hazardous waste.

The Federal and State OSHA programs regulate asbestos as it relates to employee safety. The Federal OSHA Worker Exposure Rule for Asbestos (29 CFR 1910.1001 and 1926.1101) requires certain actions on the part of any employer whose employees are potentially exposed to asbestos fiber levels above the permissible exposure limit (0.2 fibers per cubic centimeter of air [f/cc], averaged over an 8-hour day). Under Cal-OSHA, employers must begin compliance activities such as notification, employee training, air monitoring and, in some cases, medical surveillance, if employees are exposed to a time-weighted average of 0.1 f/cc over an 8-hour period. In addition to these regulations, contractors involved in asbestos surveys and removal are required to be certified by Cal-OSHA.

The California Connelly Act (Assembly Bill 3713; Health and Safety Code sec. 25915 et seq.) establishes notification requirements for all owners and employees working within any pre-1979 building known to contain ACM. Notification could be based upon a survey of ACM and their locations. The notification requirements of the Connelly Act are enforced by Cal-OSHA.

The USEPA has established National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR 61 Part M) that govern the use, removal, and disposal of ACM as a hazardous air pollutant. The NESHAP regulations mandate the removal of friable ACM before a building is demolished and includes notification requirements prior to demolition. The NESHAP regulations are promulgated and enforced by the USEPA. Responsibility for implementing these requirements has been delegated to the State of California, which in turn has delegated the responsibility to the South Coast Air Quality Management District (SCAQMD).

SCAQMD implements the NESHAP through Rule 1403, Asbestos Emissions from Renovation/Demolition Activities. Rule 1403 regulates asbestos as a toxic material and controls the emissions of asbestos from demolition and renovation activities by specifying agency notifications, appropriate removal procedures, and handling and clean-up procedures. Rule 1403 applies to owners and operators involved in the demolition or renovation of ACM-containing structures, asbestos storage facilities, and waste disposal sites. The requirements under Rule 1403 include: surveying structures for ACM; agency notification of intention to remove asbestos; ACM removal procedures and time schedules; ACM handling and clean-up procedures; ACM storage, disposal, and landfill requirements; and record keeping. In addition, any facility known to contain asbestos is required to have a written asbestos management plan (also known as an Operations and Maintenance Program [O&M Program]).

(6) Lead-Based Paint

Lead is a naturally occurring element and heavy metal that was widely used as a major ingredient in most interior and exterior oil-based paints prior to 1950. Lead compounds continued to be used as corrosion inhibitors, pigments, and drying agents from the early 1950s to 1972, when the Consumer Products Safety Commission specified limits on lead content in such products. While adults can be affected by excessive exposure to lead, the primary concerns are the adverse health effects on children. The most common paths of lead exposure in humans are through ingestion and inhalation. Lead-based paint is of concern both as a source of exposure and as a major contributor to lead in interior dust and exterior soil.

Cal-OSHA has established limits of exposure to lead contained in dusts and fumes. Specifically, CCR Title 8, Section 1532.1 establishes the rules and procedures for conducting demolition and construction activities and establishes exposure limits, exposure monitoring, and respiratory protection for workers exposed to lead.

b. Historic Site Conditions

Based on a review of aerial photographs and maps, as summarized in the Phase I and Limited Phase II ESA, the site has been developed with a mix of successive uses since the early 1900s. The site has been improved with various residential, commercial, office space, food service uses, automotive/manufacturing, light industrial and storage uses since the late 1800s-early 1900s. In the early 1900s until approximately the 1920s, there were at least three residential structures on the northern portion of the site. The commercial uses included laundry activities at the site between the 1920s and the 1960s consisting of hand washing of articles of clothing. No records or evidence of dry cleaning activities associated with the laundry activities have been located. The manufacturing/automotive uses include a brick manufacturing facility in the early 1900s and a cable manufacturing building at 28 E. California Boulevard in the 1970s,

which was then used for automotive service-related uses beginning in early- to mid-1980s. The site also contained a junk yard that specialized in plumbing supplies on the southern portion of the property from at the least the 1920s until approximately the 1970s. No known environmental cleanups have occurred at the project site.

c. Existing Site Conditions

The project site is improved with a 6,525 square foot unoccupied building (formerly Monty's Steak House), a 2,720 square foot building formerly occupied by the Grandview Palace Restaurant and the Body Healing Center message therapy facility, and a 3,390 square foot building occupied by M&G Auto Body. The remaining areas of the site are devoted to surface parking.

The site lies within the Raymond Groundwater Basin. Depth to groundwater in the vicinity of the site ranges from 50 to 100 feet below ground surface (bgs). However, groundwater was not encountered at the site during exploratory borings to a depth of 75 feet bgs.[2] Groundwater flow is expected to be generally in a southern direction.

(1) Federal, State and Local Records Review

Environmental agency databases were reviewed as part of the Phase I and Limited Phase II ESA to ascertain whether the project site or any properties within a one mile radius of the project site were listed on local, State, or Federal databases. Federal and State environmental database records were supplied by Environmental Data Resources, INC. (EDR) in March 2007. The EDR records search consisted of records within a one-mile radius of the project site. Numerous sites did appear on the databases review.[3] However, due to the distance of the identified sites from the project site, their cross- or down-gradient direction relative to the project site, and/or their current status (i.e., permit only, case closed, etc.), none are expected to present a concern to the project site.

The project site is listed on EDR's proprietary Historical Cleaners database. However, there is no evidence or knowledge that suggests dry cleaning operations occurred on the project site. Therefore, the project site's listing on the Historical Cleaners database does not present a concern.

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[2] *Phase I and Limited Phase II Environmental Site Assessment (ESA), prepared by Carlin Environmental Consulting, Inc. (CEC) on May 3, 2007.*

[3] *Please refer to Section 4.0, Records Review, in the Phase I and Limited Phase II ESA for a listing of sites identified in the database review.*

As part of the local agency records search and review, a request was made to the Pasadena Fire Department to review records associated with project site. The Fire Department responded that no records exist for the site with the exception of the address at 28. E. California Boulevard, currently occupied by M&G Auto Body. The most recent records for M&G Auto Body indicate that the facility is in compliance with all applicable regulations conducted as part of the Unified Program Inspection. In addition, an Environmental Liens Search report was conducted for the project site and no environmental liens were reported for the project site. Further, no activity or use limitations were reported for the site.

(2) Potential Sources of Hazardous Substances

(a) Underground Storage Tanks

No physical evidence or documentary evidence indicates USTs have existed on the project site. However, given that the project site has been utilized for commercial, manufacturing and light industrial (i.e., woodworking) uses for over a century, it is possible that undocumented underground storage tanks were used at the site. Due to the extensive redevelopment of the site over the years, it is unlikely that that any USTs exist on the project site, but there is nonetheless a small probability that they could exist on the site.

(b) Aboveground Storage Tanks and Drums

No physical evidence or documentary evidence indicates aboveground storage tanks or drums exist on the project site. However, the Phase I and Limited Phase II ESA states that small containers of hazardous chemicals are present at the auto body shop. Fire Department records indicate that the containers of paint and related chemicals do not exceed a volume of one gallon. The southern portion of the site was formerly used as a junk yard and plumbing storage yard prior to the 1970s. Due to these uses, it is possible that buried drums or remnants of such structures may be present in the subsurface.

(c) Asbestos

An asbestos survey was conducted for the two buildings on the western portion of the site (buildings consist of Monty's Steak House, Grandview Palace Restaurant and the Body Healing Center).[4] ACM materials were found in the flooring of the Grandview Palace Restaurant. No other samples tested positive for ACM. However, the roofs of the buildings, which could be potential sources of ACM, were not accessed during the survey. The survey noted that some of

[4] *Report of Limited Environmental Subsurface Investigation, Limited Asbestos-Containing Materials Survey, and Limited Lead-Based Paint Survey, California and Fair Oaks Office Building prepared by GeoDesign, Inc. on July 28, 2008.*

the exterior fire doors could also be source of ACM insulation. In addition, as the auto body shop building was not surveyed, the survey stated that this building may also contain ACM.

(d) Lead Based Paint

A LBP survey was conducted for the two buildings on the western portion of the site (buildings consist of Monty's Steak House, Grandview Palace Restaurant and the Body Healing Center).[5] LBP materials were found on various interior and exterior surfaces in both buildings. In addition, as the auto body shop building was not surveyed, the survey stated that this building may also contain LBP.

(f) PCBs

A pole-mounted transformer is located near the southeastern corner of the auto body shop. No stains or other evidence of leaks from this transformer were observed around the transformer. No other known PCB sources are known to occur on the project site. Nonetheless, there is a small probability that unknown PCBs could exist on the site.

(e) Contaminated Soil

The site does not contain exposed soil, with the exception of ornamental landscaped planted areas. Only minor oil stains typical of parking lots were noted on the pavement throughout the site. Thus, the current on-site uses are not suspected of contributing to contaminated soils.

A review of aerial photographs dating back to the late 1920s revealed that the site has not been historically utilized for agricultural purposes for at least the last 80 years. Other documentary evidence also revealed that the site was either vacant or improved with urban uses in the 1880s. Further, it appears that surrounding properties were not utilized for agricultural purposes. Thus, it is unlikely that pesticides or herbicides are present in the subsurface soils at the project site.

However, due to the site's historical uses that include commercial, light industrial, manufacturing and storage uses, soil samples were collected on the project site to determine if soil contamination exists on the project site. In April 2007, soil samples from three borings at depths up to approximately 75 feet bgs located throughout the project site were tested for Total Petroleum Hydrocarbons (TPH) in the gasoline, diesel, and oil ranges using EPA Method 8015M.

[5] *Ibid.*

Additionally, the laboratory was instructed to analyze any soil sample with detectable concentrations of TPH for Volatile Organic Compounds (VOCs). Of the 15 soil samples, only one (Boring Location B-1) taken in the southwestern portion of the site had a detectable concentration of TPH, which was considerably low and below concentrations that are typically considered actionable by regulatory agencies. No VOCs were found in this sample. The findings likely represent a relatively small fuel spill that occurred during development/redevelopment of the site.[6]

(f) Sources Deemed Not a Potential Concern

No physical or documentary evidence indicates that any of the following potential concerns occur on the project site:

- On-site solid waste disposal or that the site produced significant amounts of solid hazardous waste.
- On-site sumps, clarifiers, pools or pits.
- Wastewater routinely generated or disposed of on the site. According to interviews with past property owners, wastewater from the past laundry facilities disposed of wastewater through the sanitary sewer.
- Petroleum products associated with current or past manufacturing processes.
- Chemicals associated with existing auto body shop. The quantities of the chemicals have been reported to be relatively low.
- Landfills.
- Oil wells. A review of Map W1-2 published by the California Department of Oil, Gas and Geothermal revealed that no oil well have existed on the project site. The nearest oil is located approximately seven miles to the east of the site and is a plugged and abandoned dry hole.
- Radon. According to the Phase I and Limited Phase II ESA, it is opinioned that the project site and immediate vicinity are situated within a Radon Zone with a level rated at 2, which indicates that the predicted average indoor screening level of radon is most likely to be between 2pCi/L and 4 pCi/L. The EPA level for radon and subsequent possible remediation is 4 pCi/L, thus, no remedial action is not anticipated to be necessary.

[6] *Ibid.*

3. ENVIRONMENTAL IMPACTS

a. Methodology

To support the evaluation of potential impacts associated with hazards and hazardous materials that would occur from construction and/or operation of the proposed Project, various reports, as indicated in Subsection IV.C.1, Introduction, above, were reviewed. Based on the results of the reports, the potential for construction and/or operation of the proposed Project to result in significant impacts associated with hazards and hazardous materials was evaluated.

b. Threshold of Significance

Appendix G of the CEQA Guidelines provides a checklist of questions to assist in determining whether a project would have a significant impact related to various environmental issues including hazardous materials. According to the CEQA Guidelines, implementation of the proposed Project may have a significant adverse impact on hazards if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; and/or
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

c. Project Features

Due to the nature and scope of the project, the project does not include any specific design features that relate directly to hazardous materials management.

d. Analysis of Project Impacts

(1) Hazardous Materials Management

(a) Construction

Exposure of construction workers or site attendees to hazardous materials could occur in the following manner: improper handling or use of hazardous materials or hazardous wastes during construction of the project, particularly by untrained personnel; transportation accident; environmentally unsound disposal methods; or fire, explosion or other emergencies. Construction workers and attendees could be exposed to hazards associated with accidental

releases of hazardous materials, which could result in adverse health effects. The types and amounts of hazardous materials would vary according to the nature of the activity. In some cases, it is the type of hazardous material that is potentially hazardous; in others, it is the amount of hazardous material that could present a hazard. The following discusses the hazards of potential concern associated with the various stages of construction of the proposed Project.

(b) Demolition

As discussed above, small quantities of hazardous substances are currently used on-site including common cleaning, maintenance, painting supplies, and automotive-related chemical products. Given that these substances do not pose significant hazards to the public or environment in their limited quantities, less than significant impacts regarding the generation of hazardous waste involving these hazardous substances during demolition activities would occur. Furthermore, these hazardous substances would be removed from the site and to the extent necessary pursuant to applicable regulations prior to demolition activities. In addition, while PCBs are not known to exist on the project site, there is nonetheless the potential that PCS could be discovered on the site prior to demolition of the existing on-site structures. PCBs are regulated under the federal TSCA, and any PCB-containing materials must be disposed of as hazardous waste. In addition to TSCA, provisions relating to PCBs are contained in the HWCL, which lists PCBs as hazardous waste. Should PCBs be discovered prior to or during demolition activities, they would be disposed of in accordance with all applicable regulations.

(i) Asbestos

Based on a site survey for ACM, the two on-site buildings within the western portion of the site are known to contain ACM. In addition, as the auto body shop building was not surveyed, the survey stated that this building may also contain ACM. Demolition of buildings containing ACM is therefore considered to be a potentially significant impact and mitigation measures are provided below.

(ii) Lead Based Paint

Based on a site survey for LBP, LBP materials were found on various interior and exterior surfaces in both buildings within the western portion of the site. In addition, as the auto body shop building was not surveyed, the survey stated that this building may also contain LBP. Therefore, demolition of buildings containing LBP is considered to be a potentially significant impact and mitigation measures are provided below.

(c) Grading and Excavation

Grading and excavation of the site could expose construction workers to unknown hazards associated with underground storage tanks or buried former above ground tanks or drums or remnants thereof. In addition, construction workers could be subject to hazards associated with contaminated soils. The following provides an analysis of each of these potential hazards of concern.

(i) Underground Storage Tanks

No physical evidence or documentary evidence indicates USTs have existed on the project site. However, given that the project site has been utilized for commercial, manufacturing and light industrial (i.e., woodworking) uses for over a century, it is possible that undocumented underground USTs were used at the site and may still exist despite the extensive redevelopment of the site over the years. Unknown USTs discovered during excavation of the site could potentially contain hazardous materials, which may create hazards to construction workers. This is considered to be a potentially significant impact. Thus, mitigation measures are prescribed below in the event underground tanks, or remnants thereof, are encountered in the subsurface.

(ii) Above Ground Storage Tanks

The southern portion of the site was formerly uses as a junk yard and plumbing storage yard prior to the 1970s. In addition, the site has been developed with a mix of commercial, manufacturing and light industrial (i.e., woodworking) uses for over a century; therefore it is possible that remnants of former above ground tanks or drums may be present in the subsurface. Unknown remnants of former above ground tanks or drums discovered during excavation of the site could potentially contain hazardous materials, which may create hazards to construction workers. This is considered to be a potentially significant impact. Thus, mitigation is prescribed below in the event former above ground tanks or drums, or remnants thereof, are encountered in the subsurface.

(iii) Contaminated Soils

As discussed in the Existing Site Conditions above, due to the site's historical uses that include commercial, light industrial, manufacturing and storage uses, soil samples were collected on the project site to determine if soil contamination exists. Soil samples collected from borings located throughout the site were tested for total metals and TPH contamination. The results of the chemical testing for metals revealed that concentrations of metals were below levels constituting the need for special handling, treatment or disposal of the soil cuttings. TPH

concentrations were detectable in the southwestern portion of the site at Boring Location B-1, as identified in the Phase I and Limited Phase II ESA, although at levels below the need for special handling or disposal requirements. Nonetheless, it is possible that the soils in this area could yield contamination above and beyond what was identified in the Phase I and Limited Phase II ESA during project construction excavation and/or grading activities. This is considered to be a potentially significant impact. Thus, mitigation is prescribed below to identify and manage contaminated soil that might be found in this area and require special handling or treatment.

Furthermore, given that the site has historically been improved with a mix of uses that potentially utilized and/or handled hazardous materials, the potential for unknown soil contamination on the site does exist. Contaminated soils removed from the site during excavation could create hazards to construction workers. This is considered a potentially significant impact and mitigation is provided below requiring a soils management plan be prepared to ensure that, if warranted, contaminated soil is properly disposed of offsite.

(d) Building Construction

Construction of the proposed Project would involve the temporary use of hazardous substances in the form of paint, adhesives, surface coatings and other finishing materials, and cleaning agents, fuels, and oils. All materials would be used, stored, and disposed of in accordance with applicable laws and regulations and manufacturers' instructions. Furthermore, any emissions from the use of such materials would be minimal and localized to the project site. Therefore, impacts from the use of these hazardous substances during construction of the proposed Project would be less than significant.

(e) Building Operation

Operation of office uses such as those proposed typically involve the use and storage of small quantities of potentially hazardous materials in the form of cleaning solvents and pesticides for landscaping. Potentially hazardous materials would be contained, stored, used and disposed in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. Thus, operation of the project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Furthermore, the use of such hazardous materials would not create a significant hazard associated with a risk of upset or accident conditions involving the release of hazardous materials during project operations. In particular, all storm water runoff would be filtered through a clarifier system prior to entering dry wells (per Regional Water Quality Control Board standards).

H-1.1—The City will continue the enforcement of disclosure laws that require all users, producers, and transporters of hazardous materials and wastes to clearly identify the materials that they store, use, or transport, and to notify the appropriate City, County, State and Federal agencies in the event of a violation.

(2) General Plan Consistency Analysis

As stated in the Environmental Setting section above, Goal H-1 in the Safety Element of the City's General Plan seeks to reduce the potential for hazardous contamination in the City. Also, Program H-1.1 of the Safety Element requires that all users, producers, and transporters of hazardous materials and wastes to clearly identify the materials that they store, use, or transport, and to notify the appropriate City, County, State and Federal agencies in the event of a violation. Consistent with Goal 1, during construction of the project, all known and unknown hazardous materials would be properly removed, handled and disposed of in accordance with applicable regulations and implementation of the prescribed mitigation measures. During construction and operation, hazardous materials would be identified in accordance with applicable disclosure laws, as necessary, for storage, use, or transport. The appropriate City, County, State and Federal agencies would be notified in the event of a violation of any applicable hazardous materials disclosure law/regulation in accordance with Goal H-1 and Program H-1.1. As concluded in this section, the project would result in less than significant impacts regarding hazardous materials during construction and operation of the project with implementation of the prescribed mitigation measures and compliance with applicable regulatory requirements. As such, the project would be consistent with the General Plan goal and program regarding hazardous materials.

4. MITIGATION MEASURES

a. Construction

(1) Asbestos

Mitigation Measure E-1: Prior to the issuance of demolition permits, the Applicant shall submit to the City a comprehensive pre-demolition asbestos survey in accordance with SCAQMD Rule 1403. The survey shall be reviewed and approved by the City of Pasadena Building and Safety Division. All identified ACM shall be removed and disposed of by a registered Cal-OSHA-certified asbestos abatement contractor prior to any disturbance of the material, and the Applicant shall submit documentary proof of such handling to the City.

(2) Lead Based Paint

Mitigation Measure E-2: Prior to issuance of demolition permits, the Applicant shall submit to the City of Pasadena Building and Safety Division a lead-based paint survey for all existing buildings located on the project site. All identified lead-based paint shall be handled and disposed of pursuant to OSHA regulations, and the Applicant shall submit documentary proof of such handling to the City.

(3) Underground and Former Above Ground Storage Tanks

Mitigation Measure E-3: Prior to initiating grading on the site the Applicant shall inform contractor of the potential for discovery of underground storage tanks (USTs), as well as former above ground storage tanks, or remnants thereof, in the subsurface. In the event USTs or former above ground storage tanks are encountered, work in the immediate area shall be halted and the Pasadena Fire Department shall be contacted to ensure that proper procedures are established and followed for their removal. A qualified environmental consultant shall be contacted to evaluate the soil conditions in the area surrounding the tanks. Work in the area shall only continue with authorization from the Pasadena Fire Department.

(4) Contaminated Soils

Mitigation Measure E-4: Prior to initiation of excavation and grading activities, the Applicant shall retain a qualified environmental consultant to prepare a soils management plan, which will be submitted to the City of Pasadena Building and Safety Division for review and approval. The soils management plan shall be implemented during excavation and grading activities at the site to ensure that any contaminated soil are properly disposed of offsite. The plan shall include but not necessarily be limited to the following:

- A qualified environmental consultant shall be present at all times during digging or grading activities to monitor compliance with the soils management plan and to actively monitor the soils and excavations for evidence of contamination.

- Any soil encountered during future excavation or grading activities that appears to have been affected by hydrocarbon or any other contamination shall be evaluated, based upon appropriate laboratory analysis, by a qualified environmental consultant prior to offsite disposal at a licensed facility.

- Soils in the southwestern corner of the site near Boring Location B-1, as identified in the Phase I and Limited Phase II ESA, shall be segregated and analyzed prior to offsite disposal. Identified contamination shall be removed to the extent practicable. This may require over-excavation in this area and further analysis of this soil to determine the extent of soil contamination.

- All detectable contaminated soils shall be properly handled and transported to an appropriately licensed disposal facility.

b. Operation

Operation of the project would result in less than significant impacts regarding hazardous materials. Thus, no mitigation measures are necessary.

5. CUMULATIVE IMPACTS

This cumulative impact analysis considers development of the proposed Project, in conjunction with other development within a one mile radius of the project. Risks associated with hazardous materials are largely site specific and localized, and are thus limited to the project site. That is particularly true in this case, where the records searches discussed above did not yield any information regarding potentially hazardous materials concerns within a one mile radius of the project site. Additionally, site-specific investigations would be conducted at other project sites where contaminated soils or groundwater could occur to minimize the exposure of workers to hazardous substances. As such, the potential for this project to contribute an incremental effect to a potentially cumulative impact is limited.

Cumulative project development in the City of Pasadena includes a variety of uses, such as office, retail, and residential. Future development could result in the use, storage, and transport of hazardous materials. Development of the related projects could also result in the exposure of construction workers to potentially hazardous materials, due to the previous uses of those sites. If demolition of existing buildings is required, short-term increases in hazardous materials generation, due to the presence of lead-based paints and asbestos-containing materials in existing facilities could also occur. However, compliance with applicable federal, state, and local regulations would occur, which would ensure that the routine transport, use, or disposal of hazardous materials would not result in adverse impacts. All demolition activities that would involve asbestos or lead-based paint would occur in compliance with SCAQMD Rule 1403 and OSHA Construction Safety Orders that would ensure hazardous materials impacts would be less than significant. Additionally, site-specific investigations would be conducted at related project sites where contaminated soils or groundwater could occur to minimize the exposure of workers

to hazardous substances. With adherence to applicable federal, state, and local regulations governing hazards and hazardous materials, and since project implementation would not result in any significant impacts, cumulative impacts would be less than significant.

6. LEVEL OF SIGNIFICANCE AFTER MITIGATION

All potentially significant impacts would be less than significant with implementation of the mitigation measures outlined above.

IV. ENVIRONMENTAL IMPACT ANALYSIS
F. WATER SUPPLY

1. INTRODUCTION

This section provides an analysis of potential impacts regarding water supply that could occur with implementation of the proposed Project. The analysis is primarily based on the 2005 City of Pasadena Urban Water Management Plan (UWMP) prepared by the City of Pasadena Water and Power Department (PWP). The UWMP includes an overview of current and projected water supplies and demands and a description of the local water system. The water supply analysis in this section uses the projected water supplies demands to determine if water would be available to meet the future demands of the project.

2. ENVIRONMENTAL SETTING

a. Regulatory Framework

(1) Senate Bill 610 and Senate Bill 221

State legislation addressing water supply includes Senate Bill (SB) 610 (Costa) and SB 221 (Kuehl), which became effective January 1, 2002. SB 610, codified in the California Water Code (CWC), §10910 et seq., describes requirements for both water supply assessments and UWMPs applicable to the CEQA process. SB 610 requires that for specified projects subject to CEQA, the urban water supplier must prepare a water supply assessment that determines whether the projected water demand associated with a proposed Project is included as part of the most recently adopted UWMP. Specifically, a water supply assessment shall identify existing water supply entitlements, water rights, or water service contracts held by the public water system, and prior years' water deliveries received by the public water system. In addition, it must address water supplies over a 20-year period and consider average, dry, and multiple dry years. In accordance with SB 610 and Section 10912 of the Water Code, such projects subject to CEQA requiring submittal of a water supply assessment include the following:

- Residential developments of more than 500 dwelling units;
- Shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;

- Commercial office buildings employing more than 1,000 persons or having more than 250,000 square feet of floor space;

- Hotels, motels, or both, having more than 500 rooms;

- Industrial, manufacturing, or processing plants, or industrial parks planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;

- Mixed-use projects that include one or more of the projects specified in this subdivision; or

- A project that would demand an amount of water equivalent to or greater than the amount of water required by a 500 dwelling unit project.

The water supply assessment must be approved by the public water system at a regular or special meeting and must be incorporated into the CEQA document. The lead agency must then make certain findings related to water supply based on the water supply assessment.

SB 221 also addresses water supply in the land use planning process and focuses on new residential subdivisions in non-urban areas. Specifically, SB 221 requires that written verification from the water service provider be submitted indicating sufficient water supply is available to serve a proposed subdivision or the local agency shall make a specified finding that sufficient water supplies are or will be available prior to completion of a project. SB 221 specifically applies to residential subdivisions of 500 units or more. In addition, Government Code Section 66473.7(i) exempts "…any residential project proposed for a site that is within an urbanized area and has been previously developed for urban uses, or where the immediate contiguous properties surrounding the residential project site are, or previously have been, developed for urban uses, or housing projects that are exclusively for very low and low-income households."

The proposed Project is not subject to the requirements of SB 610 or SB 211 as it is an office project that contains less than 500,000 square feet of floor space and would not employ more than 1,000 persons.

(2) California Urban Water Management Plan Act

The California Urban Water Management Planning Act (CWC Division 6, Part 2.6, Sections 10610-10656) addresses several State policies regarding water conservation and the development of water management plans to ensure the efficient use of available supplies. The California Urban Water Management Planning Act also requires water suppliers to develop

water management plans every five years to identify short-term and long-term demand management measures to meet growing water demands during normal, dry, and multiple-dry years. Specifically, municipal water suppliers that serve more than 3,000 customers or provide more than 3,000 acre-feet per year (AFY) of water must adopt an UWMP.

(3) California State 20x2020 Program

It is anticipated that there will soon be Statewide demand reduction requirements as a result of Governor Schwarzenegger's 2008 call for a 20 percent gallon per capita day (GPCD) reduction in demand by 2020 (20x2020 Program). It is not yet known exactly how this Statewide target would be achieved or what individual agency targets would be, but potential reductions should be considered to assess their impact to PWP's demand.

An initial phase of the 20x2020 Program is currently under development by the California Department of Water Resources (DWR). As new information is released to the public, PWP will refine the potential impacts to their demand as a result of the 20x2020 Program. For purposes of this analysis, it is assumed that PWP would need to reduce its demand by 20 percent GPCD by 2020 (equivalent to the average State reduction goal). It is also assumed that there would be an intermediate demand reduction requirement of 10 percent by 2015.

(4) City of Pasadena 2005 Urban Water Management Plan

The PWP prepared the 2005 UWMP to comply with the Urban Water Management Planning Act, California Water Code Sections 10610 through 10657. The UWMP updated the last UWMP submitted in 2000. The UWMP documents the planning that has been accomplished by PWP staff. It includes an overview of current and projected water supplies and demands, and a description of the local water system. The UWMP also includes a description of water conservation and water management activities that PWP currently conducts or has planned for the next five years. It also addresses the topics of reliability and impacts of water quality considerations on water supply. Where possible, the UWMP has been integrated with other regional and inter-city planning efforts to ensure a coordinated approach to water management.

In the next UWMP update (available in 2010), the PWP will develop a revised demand forecast that will factor in the water demand for which all water supply assessments have been prepared in addition to future demands. This will also allow PWP to work collaboratively with its supplemental water supplier, the Metropolitan Water District of Southern California (MWD), to ensure the City's anticipated water demands are incorporated into MWD's long-term water resources development plan.

(5) City of Pasadena Urban Environmental Accords

Signed by Pasadena in 2005, the Urban Environmental Accords (Accords) provide environmentally beneficial guiding principles for agencies to follow. As part of the Accords, signatories will be requested to reduce water per capita consumption by 10 percent by 2015. To accomplish this, PWP has developed and begun implementation of a conservation program with the aim to reduce water consumption to meet this goal. The reductions obtained by meeting the Accords will help meet the 20x2020 target of 10 percent through 2015, however an additional 10 percent potable demand reduction will need to take place from 2015 through 2020. The conservation measures currently being conducted by PWP are summarized below.

Residential (BMP 1)

- *Indoor Water Use* – offered in response to a high bill complaint and upon request.
    - Provide site survey/audit to include leak detection, check for low flow toilets, showerheads and aerators and make recommendations for retrofits where appropriate.
    - Distribution of water efficiency kit and 1.5 gallon per minute (gpm) showerheads.
- *Outdoor Water Use* – target 100 highest water consumption sources.
    - Landscape surveys;
    - Smart irrigation workshops;
    - Partnership with Landscape Warehouse on efficient irrigation class;
    - Native Nights plant workshop;
    - Rebates for smart controllers and rotating sprinkler nozzles; and
    - California friendly landscaping classes.
- *MWD's regional residential water efficiency rebate program* – participation will provide benefits/enhancements to PWP's existing rebate program.

Commercial (BMP 9) /Multi-family (BMP 1)

- Indoor Water Use - Site surveys/audits in conjunction with energy audit to target high consumption market sectors;
- Mass marketing to small and medium business customers;
- Rebates for water use efficiency fixtures and appliances;
- Showerhead/aerator distributions at targeted users;
- Grant funding for flow restriction devices at specific locations; and
- Leak prevention device – Drip Stop® direct install pilot program.

Outdoor Water Use (BMP 5 – Large Landscape)

- Landscape surveys;
- Rebates for water use efficiency devices;
- Waterbroom distribution to targeted users;
- Smart irrigation workshops;
- Professional California friendly landscaping classes for HOAs, property managers and professional landscapers;
- Water forums targeted to City leaders, business leaders, property managers, neighborhood associations, commercial customers;
- Demonstration gardens; and
- Public sector program.

(6) City of Pasadena – Water Shortage Plans

PWP has several options at hand to address potential water supply issues, arising from either a reduction in its MWD allocations or its ability to pump groundwater from the Pasadena subarea of the Raymond Basin. The most immediate tool available is the declaration of a "water shortage" pursuant to Pasadena Municipal Code (PMC) Chapter 13.10.

City of Pasadena Water Shortage Plan I. In December of 2007, PWP projected a local "water shortage" as defined in PMC § 13.10.020.G. On that basis, the City Council implemented a Water Shortage Plan I. The goal of the Water Shortage Plan I was to reduce total water usage in the City by 10 percent.[1] The Water Shortage Plan I contains the following nine voluntary water reduction measures to assist all Pasadena customers with conservation techniques (PMC § 13.10.040).

- Refrain from hosing or washing sidewalks, walkways, driveways, parking area or other paved surfaces;
- Refrain from cleaning, filling, or maintaining levels in decorative fountains, ponds, lakes, and similar structures unless such structure is equipped with a water recycling system;
- Refrain from serving drinking water, unless at the express request of a customer, in all restaurants, hotels, cafes, cafeterias, or other public places where food is sold, served or offered for sales;
- Promptly repair all leaks from indoor and outdoor plumbing fixtures, including but not limited to sprinkler systems;
- Refrain from allowing water to run off landscape areas into adjoining streets, sidewalks, parking lots or alleys;
- Refrain from allowing water to run off into adjoining streets, sidewalks, parking lots or alleys while washing vehicles;
- Refrain from landscape watering more often than once every three days;
- Refrain from landscape watering between the hours of 10:00 A.M. and 5:00 P.M.; and
- Refrain from filling or refilling a swimming pool. (Ord. 6289 § 1 (part), 1988: Ord. 6275 § 1 (part), 1988).

Since declaration of the local water shortage, PWP engaged in an aggressive public education campaign to raise awareness of the Water Shortage Plan I and its conservation techniques. Specifically, PWP hosted efficient irrigation workshops; joined MWD in offering a new regional incentive program for water efficient devices (SoCal Water $mart); and provided a

[1] *See minutes of December 17, 2007 City Council meeting, at http://www.cityofpasadena.net/councilagendas/2007%20agendas/Minutes%202007/20071217.pdf; see related staff report at http://www.cityofpasadena.net/councilagendas/2007%20agendas/Dec_17_07/6A.pdf.*

host of links and information options on its website to educate Pasadena residents about other ways to save water. Despite this aggressive public education campaign, as of the summer of 2008, total water usage in the City had not changed appreciably and the goal of the Water Shortage Plan I was not being met.

City of Pasadena Water Shortage Plan II. The purpose of Water Shortage Plan II is to ensure that water is put to the maximum beneficial use and that water conservation is properly implemented. In the event of a continued water shortage, PWP could recommend to the City Council moving to a Water Shortage Plan II, pursuant to PMC § 13.10.040. At this time, PWP anticipates requesting that the City Council move to a Water Shortage Plan II by early 2009. In that event, the water reduction measures outlined above would become mandatory and the City could impose penalties on violators. PWP anticipates that implementation of Water Shortage Plan II would result in the 10 percent reduction the City has been seeking. The City's Water Shortage Plan II includes eight water conservation measures that are similar to the water conservation measures in Plan I.

City of Pasadena Water Shortage Plan III. The Water Shortage Plan III allows the PWP to impose monetary penalties to ensure that water is put to the maximum beneficial use and that water conservation is properly implemented to the extent feasible. The following measures would be implemented during Plan III.

- Phase 1. No customer shall use or allow the use of water from the department for any purpose in an amount in excess of 85 percent of that customer's base, except that process water may be used to the extent of 95 percent of that customer's base.

- Phase 2. No customer shall use or allow the use of water from the department for any purpose in an amount in excess of eighty 80 percent of that customer's base, except that process water may be used to the extent of 90 percent of that customer's base.

- Phase 3. No customer shall use or allow the use of water from the department for any purpose in an amount in excess of 75 percent of that customer's base, except that process water may be used to the extent of 85 percent of that customer's base.

- Phase 4. No customer shall use or allow the use of water from the department for any purpose in an amount in excess of 65 percent of that customer's base.

- Phase 5. No customer shall use or allow the use of water from the department for any purpose in an amount in excess of 50 percent of that customer's base.

- Nothing contained in this section shall be deemed to require any customer of the department to reduce his consumption of water provided by the department to an

amount less than 20 billing units bi-monthly at each meter during any billing period. (Ord. 6425 § 2, 1991; Ord. 6289 § 1 (part), 1988: Ord. 6275 § 1 (part), 1988).

b. Existing Conditions

(1) Overview of Water Supplier - Pasadena Water and Power (PWP)

The project site is within PWP's service area. PWP is the water supply service provider to City of Pasadena residents and businesses, as well as to a limited number of customers within adjacent unincorporated areas. The following presents a summary of the most recent water supply and demand projections based on the findings and conclusions in the 2005 UWMP.

(a) PWP Water Supply and Demand

The PWP has a variety of water sources available, including groundwater, local surface water, and imported water. Additional water supplies are also available through optional short-term water exchanges with neighboring agencies. Imported water is purchased from the MWD. The following sections provide a detailed discussion of the PWP's relationship with the MWD, as well as supply and demand forecasts for the MWD.

Water supply consists of 40 percent groundwater and 60 percent imported water, although the exact proportion can vary from year to year. PWP attempts to maximize its groundwater use each year and then utilize imported water to meet any remaining demand. The average PWP total yearly production from 1995 to 2004 was 37,094 AFY.

PWP also diverts surface water runoff from two streams that flow within its service area; (1) up to 25 cubic feet per second from Arroyo Seco, which lies on the northwest side of the City and (2) up to 8.9 cubic feet per second from Eaton Canyon, which lies in the eastern portion of the City. Although this water can be treated and used directly, PWP currently diverts and spreads the water in spreading basins where it percolates into the ground and recharges the aquifer.

Groundwater production is obtained from the Raymond Basin, a large aquifer that underlies the City and surrounding region. It has a groundwater production of approximately 30,000 AFY and has potential to store large amounts of imported water for drought purposes (up to 16 times the amount of water consumed by residents living over the Basin).[2] The Raymond Basin is adjudicated and under the judgment, the City of Pasadena has the right to 12,807 AFY

[2] *City of Pasadena, 2005 Urban Water Management Plan, Page 1 December 2005.*

with additional pumping rights each year based on spreading surface water diversions in the Arroyo Seco and Eaton Canyon. Spreading credits vary from year to year, but on average PWP has received 4,128 AFY in credits since 1994. Thus, on an average year, PWP has the right to pump approximately 16,935 AFY from the Raymond Basin. PWP is currently operating seven wells with a combined capacity of 15,200 AFY.

In May of 2008, PWP was made aware that the Raymond Basin Management Board (Watermaster) is concerned that, in certain areas of the Raymond Basin, groundwater production is greater than net recharge, which has lead to decreases in groundwater levels and increased depth-to-pumping.[3] It was estimated that the safe yield of the Pasadena subarea of the Raymond Basin, the subarea from which Pasadena takes a vast majority of its pumping rights, was approximately 35 percent less than current decreed rights in that subarea. To protect the storage capacity of the Pasadena subarea, PWP anticipates that the Watermaster may reduce the pumping allocation of every pumper in the Pasadena subarea by 35 percent. If that should occur, PWP's groundwater pumping rights would be reduced to 5,423 AFY in the subarea, for a total of 9,877 AFY in the Raymond Basin.

In 2007, PWP supplied a total of 38,434 AF, of which 25,100 AF was from imported water, 12,849 AF was from groundwater, and approximately 485 AF was from local water exchanges. Water use in PWP's service area is approximately two-thirds residential and one-third commercial/industrial. Total system per capita water use (excluding agricultural water use) averages 170 gallons per day (GPD). There were approximately 36,830 connections in 2007. Since 1990, new connections have been added at a rate of approximately 0.15 percent per year. However, demand for water has remained relatively constant with the implementation of water efficiency improvements.

Current and projected water use within PWP's service area is shown in Table IV.F-1 on page IV.F-10. Table IV.F-1 shows water usage projected for normal years and single dry years from 2010 through 2030.

Multiple dry-year supply and demand scenarios for 2010 through 2030 are shown in Table IV.F-2 on page IV.F-11. The City has a long-term storage program in the Raymond Basin and banks water within the basin for withdrawal during dry years when supplies are not sufficient to cover demands. Based on the supply and demand comparisons, PWP will have sufficient supply to meet the projected demand over the next 25 years. Its ability to meet demands during a multiple dry year period is based on the storage reserve it maintains in the Raymond Basin. During a time of drought, it can draw on this reserve to supplement its supply.

[3] *2007 Technical Memorandum: Evaluation of Groundwater Production in the Pasadena Subarea of the Raymond Basin (Stetson Engineers, 2007).*

Table IV.F-1

PWP Service Area Normal and Single Dry Year Supply and Demand (Acre-Feet/Year)

	2010	2015	2020	2025	2030
Normal Year 1					
Supply	39,957	41,291	42,624	43,959	45,293
Demand	39,957	41,291	42,624	43,959	45,293
Difference	0	0	0	0	0
Single Dry Year					
Supply	32,318	32,318	32,318	32,318	32,318
Demand	33,963	35,097	36,230	37,365	38,497
Difference	(1,645)	(2,779)	(3,912)	(5,047)	(6,179)

1 *Table 9-2 Projected Normal Year Supply and Demand Comparison. Projected supplies exceed demands; however, PWP will only take the amount of imported water necessary to serve projected demand. Additional water may be purchased by PWP at an increased rate; however PWP plans to get additional water from long-term storage*

Source: PWP 2005 UWMP.

In the previous comparisons, the scenarios showed that the storage reserve would be drawn down over the course of a three-year dry period. In the final multiple year analysis from 2026-2030, the long-term storage (LTS) reached 5,511 AF. Thus, although there is enough projected supply and storage available under these scenarios, it is important that PWP take steps to boost its reserves. There are a number of critical actions that PWP is planning to take to provide additional assurance that it will be able to maintain deliveries.

- In the short-term, PWP will restore most of the out-of-service wells into production by installing perchlorate treatment systems.
- In the long-term, PWP will maintain deliveries through aggressive conservation programs and the implementation of recycled water for irrigation purposes.
- PWP will cooperate with the watershed planning efforts in the Arroyo Seco to develop the plan to increase the capacity of its spreading basins.

The comparisons in Table IV.F-1 and Table IV.F-2 are based on the assumption that MWD is forced to curtail its deliveries during a drought. In reality, MWD has performed its own multiple dry-year analysis and has determined that it would be able to maintain deliveries to its member agencies even in the event of a historical multiple dry-year period. However, by taking the critical actions above, PWP will ensure that it can reliably maintain its own supply in the event that MWD experiences delays in implementing its Integrated Resources Plan (IRP), discussed below, as well as providing a buffer against uncertainty.

Table IV.F-2

PWP Service Area Multiple Dry Year Supply and Demand (Acre-Feet/Year)

2011 through 2015	2011	2012	2013	2014	2015
Supply	40,224	40,491	36,861	31,665	34,294
Demand	40,224	40,491	40,757	34,870	35,097
Difference	0	0	(3,896)	(3,205)	(803)
Pumped from Long-term Storage	0	0	3,896	3,205	803
Long-term Storage Balance	24,221	24,221	20,325	17,120	16,137
Annual Net Deficit	0	0	0	0	0

2016 through 2020	2016	2017	2018	2019	2020
Supply	41,559	41,826	36,861	31,665	34,294
Demand	41,559	41,826	42,092	36,005	36,232
Difference	0	0	(5,231)	(4,340)	(1,938)
Pumped from Long-term Storage	0	0	5,231	4,340	1,938
Long-term Storage Balance	24,221	24,221	18,990	14,650	12,712
Annual Net Deficit	0	0	0	0	0

2021 through 2025	2021	2022	2023	2024	2025
Supply	42,891	43,158	36,861	31,665	34,294
Demand	42,891	43,158	43,424	43,691	43,957
Difference	0	0	(6,563)	(5,472)	(3,070)
Pumped from Long-term Storage	0	0	6,563	5,472	3,070
Long-term Storage Balance	24,221	24,221	17,658	12,186	9,116
Annual Net Deficit	0	0	0	0	0

2026 through 2030	2026	2027	2028	2029	2030
Supply	44,226	44,493	36,861	31,665	34,294
Demand	44,226	44,493	44,759	38,272	38,499
Difference	0	0	(7,898)	(6,607)	(4,205)
Pumped from Long-term Storage	0	0	7,898	6,607)	4,205
Long-term Storage Balance	24,221	24,221	16,323	9,716	5,511
Annual Net Deficit	0	0	0	0	0

Source: 2005 City of Pasadena UWMP, Tables 9-5, 9-6, 9-7, and 9-8.

PWP has many options at hand to address potential water supply issues, arising from either a reduction in its MWD allocations or its ability to pump groundwater from the Pasadena subarea of the Raymond Basin. The most immediate tool available is the declaration of a "water shortage" pursuant to PMC Chapter 13.10 and implementation of a water shortage plan. These plans discussed above, would implement voluntary water conservation plans under the City of Pasadena Water Shortage Plan I and mandatory measures under the City of Pasadena Water Shortage Plan II.

To maintain supply stability in the face of supply uncertainties in the past, PWP is managing its supplies to ensure the reliability for the future. As a primary example, the City maintains a contract with the City of Glendale for the provision of recycled water and has the right to 6,000 AFY of recycled water from the Los Angeles/Glendale Water Reclamation Plant. The City has the right to take this allocation at a point of connection in Scholl Canyon, on the northwestern end of Pasadena. Although implementation of the pipe construction project to bring recycled water into Pasadena has been on hold since 1995, the City has already begun the work necessary to re-start implementation of that project. Funding for the initial planning of this project is currently available. As additional funding can be secured, the City anticipates increasingly offsetting the use of potable water for landscaping with recycled water and thus, leaving more potable water for other uses.

PWP is also considering other water supply enhancement and storage projects. In addition, the City is looking at ways to strengthen the local regulation of water use through other PMC amendments. As one example, the City is awaiting the DWR Office of Water Use and Efficiency's update to the State model water efficient landscape ordinance. DWR anticipates that the model ordinance will be updated in early 2009. By late 2009, and pursuant to the requirements of Government Code Section 65595, the City anticipates updating its ordinances regulating landscaping water use to be at least as stringent as the State model ordinance. Through these efforts, PWP anticipates serving demand in the City as forecast in the City's General Plan and UWMP into the foreseeable future.

(b) MWD Water Supply and Demand

PWP has contracted with the MWD for deliveries under a purchase order arrangement. Under the contract, MWD charges for water supply under a two-tiered rate structure. PWP has the right to purchase up to 90 percent of their initial base demand at Tier 1 rates. Initial base demand is calculated as the maximum firm demand for MWD water over a 10-year period since 1989. Tier 1 rates are set by MWD to recover its costs of maintaining a reliable supply. Any amount higher than 90 percent of base demand is charged at higher Tier 2 rates to encourage efficient utilization of local resources and include MWD's costs for developing additional supplies.

Future projected annual supplies from MWD during single dry, multiple dry and normal years are shown in Table IV.F-3 on page IV.F-14. MWD supplies range from a high of about 3.3 million acre-feet (MAF) to a low of 1.9 MAF, depending on the year and the scenario. In drought conditions, water supplies may be reduced as a result of reduced precipitation. Since the City receives the majority (approximately 60 percent) of its water from MWD, an analysis of the reliability of the MWD supply under drought conditions is required. An analysis of single dry year, multiple dry year, and average year MWD supply reliability follows.

Table IV.F-3 presents the MWD demand and supply capabilities through the year 2030 under average year, single dry year and multiple dry year scenarios. The data shows that not only will demand from MWD customers be met under the three different scenarios through the year 2030, but that the MWD will maintain a surplus ranging from a low of 240,000 AFY to 1,160,000 AFY.

The MWD receives its water from various supplies including the Colorado River and the State Water Project (SWP). Currently, these sources are undergoing litigation and face various uncertainties regarding water supply. The following sections provide a brief summary of the challenges facing MWD's individual supplies.

(i) The Colorado River

Pursuant to a contract with the U.S. Secretary of the Interior under Section 5 of the federal Boulder Canyon Project Act, MWD possesses the right to divert 550,000 AFY of water from the Colorado River.[4] In March 2003, MWD published the *Report on Metropolitan Water Supplies: A Blueprint for Water Reliability* (Blueprint Report). The Blueprint Report includes a description of MWD's base apportionment water right, along with the Colorado River supply projects that MWD is implementing to maximize the reliability of the Colorado River supplies.[5] The Quantification Settlement Agreement (QSA) and other related agreements were approved on October 10, 2003, following distribution of the Blueprint Report, which related to the supplies of all the California users of the Colorado River including MWD. Signing of the QSA and related agreements will allow implementation of the Colorado River supply projects identified in the Blueprint Report, as well as other projects. The impact on the reliability of MWD's supplies as a result of the QSA and related agreements is described in MWD's 2006 Integrated Water Resources Plan Implementation Report.[6]

[4] *45 Stat. 1057 (December 21, 1928).*

[5] *Blueprint Report.*

[6] *Metropolitan Water District of Southern California, 2006 Integrated Water Resources Plan Implementation Report at 1-2 to 1-10 (October 10, 2006).*

Table IV.F-3

MWD Supply and Demand (Acre-Feet/Year)

Scenario	2010	2015	2020	2025	2030
Multiple Dry Year					
Supply	2,619 ,000	2,834,000	2,841,000	2,827,000	2,827,000
Demand	2,376,000	2,389,000	2,317,000	2,454,000	2,587,000
Surplus (Supply less Demand)	**243,000**	**445,000**	**524,000**	**373,000**	**240,000**
Single Dry Year					
Supply	3,151,000	3,356,000	3,309,000	3,252,000	3,203,000
Demand	3,320,000	2,196,000	2,229,000	2,358,000	2,487,000
Surplus (Supply less Demand)	**831,000**	**1,160,000**	**1,080,000**	**894,000**	**716,000**
Average Year					
Supply	2,668,000	2,600,000	2,654,000	2,654,000	2,654,000
Demand	2,036,000	1,947,000	1,983,000	2,110,000	2,246,000
Surplus (Supply less Demand)	**632,000**	**653,000**	**671,000**	**544,000**	**408,000**

Demand represents FIRM demand, defined as full service demands (Tier I and Tier II) plus 70% of the Interim Agricultural Water Program.

Source: Metropolitan Water District Regional UWMP, November 2005, Tables II-7, II-8, and II-9.

MWD diverts water from the Colorado River at Lake Havasu on the California/Arizona border and conveys it across the Mojave Desert via the agency's Colorado River Aqueduct to Lake Mathews near Riverside. From there, MWD pumps the water into its feeder pipeline distribution system for delivery to its member agencies throughout Southern California.

The MWD anticipates that its apportionment of 550,000 AF of Colorado River water will be available during all year types, including wet, average, single dry-year, and multiple dry-year weather conditions for the next 20 years.[7] However, current challenges facing MWD's Colorado River supply include risk of continued drought in the Colorado River Basin and pending litigation that may threaten implementation of part or all of the QSA. In anticipation of these possible events, MWD has been preparing responses to these challenges, which are described in detail below.

[7] *Blueprint Report at B-6.*

The Colorado River Basin has experienced below-normal runoff for the past eight years. During 2006, Lake Mead was at its lowest level in 41 years.[8] A Draft Environmental Impact Statement on Lower Basin Shortage Guidelines and Coordinated Management Strategies for Lake Powell and Lake Mead, Particularly Under Lower Reservoir Conditions was released by the U.S. Bureau of Reclamation, which operates the Colorado River reservoirs, in February 2007.[9] That study analyzed various alternatives to manage the Colorado River in light of the current extended dry period for enhanced reliability in water allocations for all the users of the Colorado River, including MWD. For example, one of the alternatives would introduce new operating and accounting procedures to address the ability of MWD and others to store water in Lake Mead.[10] Despite the challenges of recent Colorado River Basin hydrology, MWD "does not anticipate adverse water supply impacts resulting from the implementation of [the] shortage guidelines because California's 4.4 million acre-foot apportionment has a higher priority than a portion of Arizona and Nevada's apportionments during shortage conditions."[11]

Additional programs that will help to implement the QSA and meet Colorado River water supply targets, which are currently in operation, are close to completion, or in progress include: the Imperial Irrigation District (IID) and MWD water conservation and transfer program; the Coachella and All-American Canal lining projects; the IID and San Diego County Water Authority (SDCWA) water transfer; the Palo Verde Irrigation District land management and crop rotation program; and the Interim Surplus Guidelines adopted by the U.S. Secretary of the Interior.[12] MWD is actively working to implement several of these QSA-related programs. In addition, MWD is participating in the Intentional Created Surplus program to store water in Lake Mead for withdrawal during dry years. During 2006 and 2007, MWD stored 50,000 AF of water in Lake Mead that it had saved under the Palo Verde Irrigation District Land Management and Crop Rotation Program.[13] Collectively, these programs are expected to maintain the reliability of MWD's Colorado River supplies.

MWD's 550,000 AFY apportionment of Colorado River water has been delivered to MWD every year since 1939, in all hydrologic year types.[14] By existing contract, this supply "will continue to be available in perpetuity" due to California's senior rights on the Colorado

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[8] *Metropolitan Water District of Southern California, 2006 Integrated Water Resources Plan Implementation Report at 12 (October 10, 2006).*

[9] *Id.*

[10] *Id at 13.*

[11] *Id.*

[12] *Id. See also 66 Fed. Reg. 7772-7782 (January 25, 2001).*

[13] *Id.*

[14] *MWD's 2005 UWMP at A.3-2.*

River.[15] MWD has affirmed that "[t]he historical record for available Colorado River water indicates that Metropolitan's fourth priority supply has been available in every year and can reasonably be expected to be available over the next 20 years."[16] Thus, according to MWD, its Colorado River supply is secure through at least 2025. Pursuant to the analysis in more recent MWD assessments of its water supplies and this analysis, there are no substantial challenges that are currently predicted to arise between 2025 and 2030. Therefore, the same reliability that MWD declared through 2025 is also applicable through at least 2030.

The second challenge to MWD's Colorado River supplies is the pending litigation concerning the QSA and related agreements. That litigation has taken two forms: (1) a series of lawsuits against the lining of the All-American Canal; and (2) a series of lawsuits which challenge the IID/SDCWA transfer. The All-American Canal litigation has been litigated and resolved in favor of the QSA parties, thus increasing the certainty of MWD's Colorado River supplies since the publication of the Blueprint Report.[17]

Several lawsuits against the IID/SDCWA transfer were brought by the County of Imperial, various landowners within IID and environmental advocacy groups, and have been consolidated in Sacramento County Superior Court. In two of those lawsuits, the County of Imperial sued the State Water Resources Control Board (SWRCB), IID and SDCWA regarding the legitimacy of the QSA approvals. In November 2004, the Superior Court dismissed those cases with prejudice on the ground that the County had failed to name MWD and the Coachella Valley Water District as necessary and indispensable parties to the actions on a timely basis. The County appealed that decision and the Court of Appeal affirmed the dismissal in 2007, which lifted a stay on the other QSA cases.[18] In addition, several demurrers have been filed and sustained in the consolidated cases, reducing the number of causes of action pending in the litigation.[19] As of the date of this document, the water transfer challengers' motions for preliminary injunction have been denied and thus, the parties are free to implement the provisions of the QSA, as appropriate. The full cases are expected to reach the court for decision during 2009.

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[15] *Id.*

[16] *Id.*

[17] *On April 6, 2007, the U.S. Court of Appeals for the Ninth Circuit dismissed the challenge to the lining of the All-American Canal and lifted the court-imposed injunction that for a period of time halted construction. The ruling allowed IID to commence work on the project to conserve water lost by seepage from the existing earthen canal. See Consejo de Desarrollo Economico de Mexicali, A.C. v. United States, 482 F.3d 1157 (2007).*

[18] *County of Imperial v. Superior Court, 152 Cal.App.4th 13 (2007).*

[19] *October 10, 2007 Order by Judge Candee in Imperial Irrigation District v. All Persons Interested in Any of the Following Contracts, Imperial County Case No. ECU01649 (Sacramento County Case No. 04CS00875) filed November 5, 2003.*

While all significant issues in the QSA litigations have been resolved in favor of MWD and the other QSA parties to date, including the entire All-American Canal case, it is impossible to predict with absolute certainty how the remaining litigation will be resolved. However, MWD is actively involved in the litigation and plans to defend the QSA fully to prevent any impacts to its Colorado River supplies.

(ii) State Water Project

MWD has contracted with DWR for approximately 46 percent of its contracted Table A amount of 1,911,500 AFY from the SWP. This supply is diverted from the Feather River at Lake Oroville, released and conveyed through the Sacramento-San Joaquin River Delta (Delta), and rediverted at the Harvey O. Banks Delta Pumping Plant for conveyance through the California Aqueduct to Southern California and MWD. MWD estimated the availability of SWP supplies in its Blueprint Report, stating that "according to the historical record of hydrologic conditions, existing system capabilities, requests of the state water contractors and SWP contract provisions for allocating Table A, Article 21 and other SWP deliveries to each contractor." As such, the MWD estimated in the Blueprint Report that in 2025, it will have 794,700 AF available in multiple dry years, 418,000 AF in a single dry year, 1,523,300 AF in an average year and 1,741,000 AF in a wet year. Challenges to this water supply include environmental litigation concerning the Delta due to water quality and environmental issues that can affect pumping operations and the potential for levee failure. Actions being taken by DWR and MWD to avoid or mitigate these risks are described below.

In 2007, two courts ruled that the SWP and the Central Valley Project (CVP) were violating State and federal environmental laws regarding a threatened fish species, the Delta smelt. First, the Alameda County Superior Court concluded that the SWP had failed to obtain a permit required under the California Endangered Species Act (CESA) that would provide protections for Delta smelt, salmon and steelhead from the effects of water pumping for activities at the Harvey O. Banks Delta Pumping Plant located in Tracy, California. The court ordered the SWP pumps to be turned off unless appropriate permits were obtained within 60 days. DWR appealed that decision, automatically staying the decision pending the outcome of the appeal. Regardless, DWR shut down the Harvey O. Banks Delta Pumping Plant from May 31 to June 10, 2007, to protect the Delta smelt. DWR resumed pumping on June 10, 2007, and pumping has remained at normal operating levels.

In May 2007, the U.S. District Court ruled that a federal Endangered Species Act (ESA) take permit that had been issued to protect Delta smelt at both the SWP pumps and the federal Jones Pumping Plant was not legally sufficient. At issue was a 2005 biological opinion ("BiOp") that was issued by the U.S. Fish and Wildlife Service (USFWS) pursuant to the ESA, which concluded that current project operations and certain planned future actions would not jeopardize the continued existence of the Delta smelt or adversely modify its critical habitat based on

certain actions being taken by the CVP and SWP. The court found that the BiOp was legally inadequate because it did not provide a reasonable degree of certainty that mitigation measures would take place, use the best available science, address climate change, or address the impacts of joint project operations on the continued survival of the Delta smelt. In anticipation of the court decision, the SWP and CVP water agencies requested a new permit in consultation with USFWS. On August 31, 2007, the court issued an interim oral decision that allowed the SWP and CVP to continue operating under the prior take permit as long as they complied with a USFWS-proposed five-point action matrix, as modified slightly, plus certain increased monitoring plans requested by the plaintiffs and other actions. In December 2008, a new BiOP was issued by the USFWS, which is currently under review by the MWD to determine the potential impacts on its future available supplies.

The Chief of the SWP Operations Planning Branch has stated that it is anticipated that in an average year, when combined deliveries of the CVP and SWP would be 5.9 million AF, reductions in deliveries due to compliance with the USFWS matrix will range from 820,000 to 2.17 million AF, which represent 14 and 37 percent of baseline deliveries, respectively. In a dry year, when combined deliveries would be 3.2 million AF, reductions will range from 183,000 to 814,000 AF, which represent reductions from baseline deliveries of 6 and 25 percent, respectively. However, the modifications to the USFWS matrix will increase the delivery reductions by a slightly greater amount than the figures provided above.

The U.S District's Court ruling will impact diversions from December 25, 2007 until MWD determines the potential impacts of the new USFWS BiOp issued in December 2008. However, it should be expected that the USFWS will include similar restrictions in the final BiOp to those that were in its action matrix. Thus, the SWP and CVP will likely see long-term reductions in deliveries based on this litigation. Among other results, the decision likely will increase the political pressure for construction of the Peripheral Canal to avoid use of the south Delta pumping plants. In response to this decision and other water supply and quality issues, MWD has reported that "[i]n the short and long-term, continued investment in regional and local resources will help ensure and diversify reliable water supplies to meet Southern California's future needs." MWD has embarked on many proactive programs to deal with potential future delivery restrictions, should they occur.

MWD is one of the parties that are drafting the Bay-Delta Conservation Plan (BDCP), which allows water contractors, who must comply with the federal and State ESAs, to work cooperatively to attain incidental take coverage via a habitat conservation plan and natural community conservation plan. A draft report has been prepared and the appropriate permits and completion of an environmental impact statement/impact report is anticipated by late 2009.

The MWD has also engaged in a voluntary Central Valley storage and transfer program to bank MWD's SWP water supplies. MWD reported in its 2006 Integrated Water Resources

Plan Implementation Report, that "492,000 AF of dry-year yield has been developed in Central Valley storage and transfer programs," and "[p]otential partners and programs have been identified to meet IRP targets." This program will provide MWD with the flexibility to address shortages due to drought or court-imposed cutbacks to protect Delta smelt. In addition, MWD has employed conjunctive use programs which utilize groundwater basins to store water during wet seasons, in order to provide a buffer supply that MWD can extract during dry periods. In 2006, MWD developed groundwater storage capable of providing 135,000 AF of dry year supply and the MWD continues to seek additional opportunities to expand groundwater conjunctive use storage programs in Southern California.

Delta Levees. The State is preparing a plan to protect the Delta in the event of a levee failure that would potentially impact SWP supplies. At the recommendation of CALFED, an interagency effort began a two-year Delta Risk Management Study (DRMS) to analyze risks to the levee system in the spring of 2006. The interagency effort, which includes 23 State and federal agencies that have management or regulatory responsibility for the Delta, initiated Stage I analysis that includes a discussion of the region's assets, existing problems with the system, the degree of risk that exists and the potential consequences of multiple levee failures. The Stage II analysis addresses levee risk reductions.

Ultimately, the DRMS reports became a part of the Delta Vision Report, which was finalized for submission to the State Legislature and Governor in January 2008. The next step of the interagency effort is to begin studying long-term strategic solutions for the conflicts in the Delta. That process assesses alternative implementing measures and management practices to implement the Delta Vision recommendations. The final recommendations will include modifications to existing land uses and services in the Delta and will assess governance, funding mechanisms, water resource uses, and ecosystem management practices. It should be noted that in response to concerns over the integrity of the levee system, the State significantly increased the budget for levee repairs in 2006, and a $5.4 billion natural resources bond was approved by voters in November 2006 (Proposition 84), which assigns additional funds for flood control in the Delta and to plan for future water supplies.

In conclusion, a review of MWD's resource development programs demonstrates that although SWP supplies are facing challenges and may become more expensive based on the cost of ultimately adopted solutions, MWD's adaptive planning framework (conservation, in-region surface water storage, groundwater storage programs, and local water production within the MWD service area) will allow MWD to adapt to changing conditions and ensure a reliable, diverse water supply to its members agencies that supply water to municipal customers. Specifically, MWD has worked for the past 10 years to increase the capacity of its reservoirs and its overall water reserve is several times larger than it was during the 1991-1992 drought. In addition, actions that are being taken by the CALFED process and the State should enhance reliability of the SWP supplies in the future.

Water Management Plans

MWD also has several programs that address its overall supply reliability including preparation of a Water Surplus and Drought Management Plan, Drought Allocation Plan, Integrated Resources Plan, and a Five-Year Supply Plan. Each of these plans is described in detail below.

Water Surplus and Drought Management Plan (WSDM). The WSDM provides policy guidance to manage MWD's supplies and achieve the goals laid out in the agency's Integrated Resources Plan (refer to discussion below). The WSDM also "identifies the expected sequence of resource management actions that [MWD] will execute during surpluses and shortages to minimize the probability of severe shortages and eliminate the possibility of extreme shortages and shortages allocations." MWD's ten-year WSDM categorizes its ability to deliver water to its customers by distinguishing between surpluses, shortages, severe shortages, and extreme shortages, which reflects MWD's belief that these actions are interrelated.

MWD's regional storage facilities (Lake Skinner, Lake Mathews, and Diamond Valley Lake), along with storage capacity available to MWD in Castaic Lake and Lake Perris, provide MWD with flexibility in managing its supplies. MWD's storage supplies and existing management practices allow MWD to mitigate shortages without having to impact retail municipal and industrial demands, except in severe or extreme shortages.

As specified in MWD's 2005 UWMP, the MWD is expected to meet demands in single dry years by water supply source. Specifically, in 2010 MWD expects to have 831,000 AF in potential reserve and replenishment supplies, primarily through in-basin storage and in 2030, MWD estimates that it will have 716,000 AF in potential reserve and replenishment supplies. Therefore, the WSDM explains that, "Each [shortage] stage is associated with specific resource management actions designed to (1) avoid an Extreme Shortage to the maximum extent possible and (2) minimize adverse impacts to retail customers if an Extreme Shortage occurs" and concludes that the "overriding goal of the WSDM Plan is to never reach Shortage Stage 7, an Extreme Shortage."

In an actual shortage, MWD will take one or more of the following actions: (1) draw on storage out of reservoirs; (2) draw on out-of-region storage in the Semitropic and Arvin-Edison groundwater banks; (3) reduce or suspend long-term seasonal and groundwater replenishment deliveries; (4) draw on groundwater storage programs; (5) draw on SWP terminal reservoir storage; (6) reduce Interruptible Agricultural Water Program (IAWP) deliveries; (7) call on water transfer options contracts; (8) purchase additional water; and (9) reduce imported supplies to its members agencies by an allocation method. MWD clarifies that this list is not in any particular order, "although it is clear that the last action [taken] will be the curtailment of firm deliveries to

the member agencies." If MWD were obligated to curtail firm deliveries, it would enforce these shortage allocations using rate surcharges. For example, if deliveries exceed 102 percent of a customer's allotment, the customer will be assessed a surcharge.

Prior to the start of calendar year 2007, MWD estimated that water demands would exceed annual supplies (not including stored water) by approximately 300,000 AF. In response, MWD took the following actions: (1) called for water stored in its Central Valley storage programs; (2) initiated replenishment cuts and notified participating agencies with in-basin groundwater storage programs; (3) embarked on a public outreach and media conservation campaign; and (4) announced reductions in IAWP agricultural supplies.[20]

In 2008, MWD implemented a strategic approach regarding its WSDM Plan. Besides exercising interruptions to the IAWP, MWD's major strategies were as follows:

- Continue conservation campaign;
- Maximize recovery of water from Central Valley storage and banking programs;
- Purchase additional supplies to augment existing supplies; and
- Develop and implement a shortage allocation plan.

Drought Allocation Plan. MWD is presently developing a long-term Drought Allocation Plan that may include reductions of full service deliveries. MWD has used several of these types of initiatives in the past (e.g., during the droughts of 1977-78 and 1989-92), which allowed the agency to meet the needs of its member agencies. Past experience demonstrates that MWD has always provided its members agencies with sufficient supplies in the face of variable weather conditions, new environmental and water quality regulations, and evolving political and legal challenges.

[20] *Regarding reductions in agricultural water deliveries, before MWD imposes any restrictions on the PWP's Tier 1 water, it will reduce deliveries of discounted agricultural supplies. In 1994, MWD established the IAWP to deliver surplus water for irrigation purposes at a reduced rate that is more affordable for certain sectors of the agricultural industry. In exchange for the discounted rate, the MWD General Manager has the authority to reduce IAWP deliveries up to 30 percent before it imposes mandatory allocations to municipal and industrial retail customers under its WSDM.*

Due to dry conditions and the pending Delta smelt litigation in 2007 that may affect MWD's supplies, MWD will implement the water shortage actions which it outlined in its WSDM, which include a 30 percent reduction in IAWP deliveries. On October 9, 2007, MWD's Board of Directors announced that it will reduce IAWP deliveries over a 12-month calendar year beginning in January 2008. At this time, MWD has stated that it will not reduce water purchased by its member agencies at the full service rate. PWP's supplies are currently secure as it purchases non-discounted non-interruptible supplies from MWD.

Integrated Resources Plan. MWD's original Integrated Resources Plan (IRP) was adopted in 1996 however; the most recent IRP was adopted in 2004. The IRP discusses local water supply initiatives (e.g., local groundwater conjunctive use programs) and establishes a buffer supply to mitigate against the risks associated with implementation of local and imported water supply programs. The 2004 IRP notes that future water supply reliability depends not only upon actions by MWD to secure reliable imported supplies, but also further development of local projects by local agencies.

Subsequently, MWD has released its 2006 Integrated Water Resources Plan Implementation Report (2006 Implementation Report) regarding progress towards implementing the goals of the 2004 IRP Update. The 2006 Implementation Report included a summary of each of MWD's water resource development categories: (1) conservation; (2) local resources; (3) Colorado River Aqueduct; (4) SWP supplies; (5) Central Valley storage and transfer programs; (6) in-region groundwater conjunctive use storage; and (7) in-region surface water storage. This recent report concluded that "while changes occur in all resource areas, Metropolitan is able to maintain supply reliability through its diversified water resources portfolio." In order to support this conclusion, MWD provided detailed updates for each of its resource categories, restating dry-year IRP targets and examining current considerations, changed conditions, implementation strategies and identified programs, implementation challenges and cost information. A brief summary of each of MWD's water resource development categories (other than the Colorado River and SWP supplies, which were discussed in detail in previous sections of this WSA) is provided below.

- *Conservation***:** In 2006, MWD invested $10.6 million in conservation programs and initiatives, including executing a 10-year residential master conservation funding agreement with member agencies, encouraging the use of high-efficiency toilets, strengthening outdoor conservation programs, and introducing new Industrial Process Improvement programs. In 2005 and 2006, MWD programs conserved approximately 762,000 AF, which was an increase of approximately 30,000 AF over the previous fiscal year. MWD's 2010 target for conservation savings is 865,000 AF.

- *Local Resources—Recycling, Groundwater Recovery and Seawater Desalination***:** MWD has invested $213 million with its member agencies to develop local resource programs. MWD contributed approximately $24.5 million toward the production of 127,000 AF of local resource production supplies in 2006, which is an increase of 16,000 AF from 2005. MWD's 2010 target for regional water recycling and groundwater recovery is 410,000 AF. In addition, three desalination project agreements have been signed.

- *Central Valley Storage and Transfer Programs***:** MWD has developed significant water storage and transfer program partnerships in the Central Valley and has

witnessed increased cooperation with DWR and federal agencies to facilitate water transfers. MWD continues to pursue transfers with Central Valley parties and has worked to improve existing storage programs with existing SWP storage partners. For 2008, MWD is currently seeking to acquire up to 250,000 AF by temporary transfer from the Central Valley.

- *In-Region Groundwater Storage***:** The 2006 Implementation Report identified that components of MWD's in-region groundwater storage program may not meet its 2010 dry-yield target of 275,000 AF. As of October 2006, groundwater storage had been developed to provide about 135,000 AF. As a result, MWD conducted a groundwater basin assessment to explore other groundwater storage opportunities. MWD's recent Groundwater Basin Assessment Study provided new information to focus on meeting this goal and will continue to develop new strategies for groundwater storage.

By amending existing strategies, MWD has made significant progress in most resource areas toward meeting the IRP targets as described in MWD's 2007 Implementation Report. In fiscal year 2006-2007, MWD saved approximately 812,000 AF through conservation efforts and is expected to meet its 2010 target. Local resource production is expected to exceed the 2010 target of 426,000 AF based on current production and expansion of existing programs. Existing supplies in Central Valley storage programs are also expected to exceed the 2010 target of 300,000 AF. In addition, as described above, while in-region groundwater storage programs are currently falling short of MWD's 2010 IRP target, MWD is actively working to find new ways to meet this goal and the success of other programs, such as Central Valley storage, which can avoid any negative impacts from failure to meet this single goal. For example, MWD has already exceeded its 2010 IRP target for dry-year surface water storage. Therefore, while SWP supplies are not projected to meet the 2010 or longer-term targets, MWD is actively seeking to resolve the risks associated with that supply.[21]

Five-Year Supply Plan. The Five-Year Supply Plan was initiated in response to a number of extraordinary events including regulatory actions that reduced water supplies from the SWP to protect Delta smelt and record-dry hydrology that will result in approximately 1.1 million acre-feet of withdrawals from Metropolitan storage from January 2007 through December 2008. Therefore, as of April 2008, staff has been working with the member agencies through a series of meetings and workshops to develop a Five-Year Supply Plan, which identifies the specific resource and conservation actions that would be implemented over the next

[21] *It should be noted that MWD is in the process of updating the 2004 IRP for release in 2009. The updated IRP will address existing and new challenges, such as the Delta smelt litigation and climate change. As can be seen by these ongoing studies, MWD is continually updating its plans to meet ever-changing challenges to its water supplies.*

five years to manage water deliveries under continued drought conditions and court ordered restrictions.

The Five-Year Supply Plan includes a number of various programs to enhance supplies through conservation, Colorado River transactions, near term Delta actions, SWP transactions, groundwater recovery, and local resource enhancement programs. There are numerous specific projects and transactions that have been identified as potential resource options for the next five years. These programs are anticipated to result in an additional 519,000 AFY to 1,255,500 AFY in 2009, with additional increases beyond 2009 as some improvements would require more than one year to become operational.

Summary of MWD Water Supply Reliability

In conclusion, MWD has engaged in significant water supply projection and planning efforts. As noted above, those efforts have included the water demands of the City's service area as projected in the 2005 UWMP projections. In its 2003 Blueprint Report and 2005 Regional UWMP, MWD has consistently found that its existing water supplies, when managed according to its water resource plans (such as the WSDM and IRP), are and will be 100 percent reliable for at least a 20-year planning period. Since publication of those reports, MWD has continued to implement its water supply programs identified in its 2006 and 2007 Implementation Reports.[22] Although water supply conditions are always subject to uncertainties, MWD has maintained its supply reliability in the face of such uncertainties in the past and is actively managing its supplies to ensure the same 100 percent reliability for the future.

(c) Global Warming and Climate Change

While climate change is a growing concern that should be considered by PWP, at this time it is difficult to determine what the impacts of climate change are or will be to either PWP's local or imported supplies. Therefore, there are no quantified impacts to supply or demand provided in this analysis. However, this section is included since climate change is an important factor and that although not currently quantifiable, the potential for impacts to supply and demand need to be factored into PWP resource planning.

State and several regional/local agencies have begun trying to determine the impact of climate change on California's water supplies. The DWR report on climate change and effects on the SWP, the Central Valley Project, and the Sacramento-San Joaquin Delta concludes that "[c]climate change will likely have a significant effect on California's future water resources . . .

[22] *The 2007 IRP was published on October 9, 2007*

[and] future water demand." It also reports that "much uncertainty about future water demand [remains], especially [for] those aspects of future demand that will be directly affected by climate change and warming. While climate change is expected to continue through at least the end of this century, the magnitude and, in some cases, the nature of future changes is uncertain."

In addition, the DWR and the California Climate Change Center (CCCC) both looked at impacts of climate change on California's water system but used different modeling approaches. Both models did seem to agree that temperature will increase but the magnitude of precipitation changes will vary considerably. These analyses have provided no conclusive evidence on changes in frequency and magnitude of droughts. Through these efforts, there will be a lightly better understanding of the potential regional level impacts which will impact the SWP system that supplies PWP through MWD.

More small scale impacts that would affect PWP's local supplies are almost impossible to estimate at this time. It is however, important to keep in mind that there is a potential for significant impacts to longer-term supplies and some consideration of this potential needs to be incorporated in any future resources planning and decision. Water agencies are planning for future changes with varying approaches. Some agencies use adaptation as a solution, while others are developing future climate scenarios via stochastic modeling and using them to evaluate impacts.

In summary, while climate change is expected to continue through at least the end of this century, the magnitude and nature of future changes are uncertain. This uncertainty serves to complicate the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood. Based on this information, the project has determined that global climate changes and their potential effects on California's water supply are too speculative at this time for further evaluation. For further discussion on the effects of global climate change, please refer to Section IV.A, Air Quality.

3. ENVIRONMENTAL IMPACTS

a. Methodology

The analysis of potential impacts to water resources was based on the increase in demand resulting from the proposed Project relative to the ability of the PWP to provide the required water for the Project.

b. Threshold of Significance

Appendix G of the CEQA Guidelines provides a checklist of questions to assist in determining whether a project would have a significant impact related to various environmental issues including water supplies. According to the CEQA Guidelines, implementation of the proposed Project may have a significant adverse impact on water supply if it would:

- Fail to have sufficient water supplies available to serve the project from existing entitlements and resources, or if new or expanding entitlements are needed.

In addition, the City has two water conservation goals related to the Urban Environmental Accords and the Governor's 20 percent by 2020 reduction. The City seeks to reduce potable water consumption by 10 percent by the year 2015 and to further decrease consumption by an additional five percent by the year 2020 consistent with the Governor's 20 percent by 2020 reduction. Therefore, a project is required to conserve a minimum of 20 percent on potable water to be considered less than significant.

c. Project Features

The Project would incorporate active water conservation measures, including, but not limited to; low flush toilets, dual flush toilet/urinal controls, time-control sink faucets, drip irrigation systems for all landscape areas with a master environmental control system, roof storm water runoff filtered through selected planters to provide plant irrigation prior to entering the storm water runoff system, detention basin/rock pocket infiltration systems, low water use landscape materials with heavy surface mulch to reduce evaporation, recycled water in decorative water features, and maintenance specifications that require low water use, including a motorized brush machine for regular cleaning of the exterior plaza, courtyard and parking garage (no hose off allowed).

d. Analysis of Project Impacts

As shown in Table IV.F-4 on page IV.F-27, existing on-site uses currently generate approximately 9,536 gallons per day (gpd) of wastewater. Assuming that wastewater accounts for 75 percent of total water demand, the existing on-site uses have a water demand of 12,715 gpd. Assuming that the existing on-site uses operate 355 days per year, the yearly water demand would be 4,513,825 gallons per year or 13.9 AFY.

The proposed office use is anticipated to generate approximately 16,980 gpd of wastewater or a demand of 22,640 gallons of water per day. Assuming that the proposed office uses operate 252 days per year, the yearly water demand would be 5,705,280 gallons per year or

Table IV.F-4

Project Water Demand

Use	Square Feet	Wastewater Generation Factor[a]	Total Wastewater
Existing Conditions			
Massage Parlor	1,360 gr. sf	275 gallons/day/1000 gr. sf.	374 gpd[b]
Restaurant (Full Service)	215 seats[c]	30 gallons/day/seat	6,450 gpd
Auto Body Shop	3,390 gr. sf.	800 gallons/day/1,000 gr. sf.	2,712 gpd
		Subtotal	*9,536 gpd*
Assumption: wastewater = 75% of water demand. Thus, existing water demand = 12,715 gpd			
Proposed Project			
Office	113,200 gr. sf.	150 gal/day/1,000 gr. sf.	16,980 gpd
		Net Increase in Wastewater w/Project	**7,444 gpd**
Assumption: wastewater = 75% of water demand. Thus, project water demand = 22,640 gpd			
Net increase in water demand = 22,640 gpd - 12,715 gpd = 9,925 gpd			

[a] *Generation factors from L.A. CEQA Thresholds Guide, City of Los Angeles, 2006. Exhibit M.2-12, Sewage Generation Factors.*

[b] *gpd = gallons per day*

[c] *Assumes 150 Seats for Monty's restaurant and 65 Seats for Grandview Palace restaurant.*

Source: PCR Services Corporation, November 2008.

17.5 AFY. Thus, the project would result in a net demand increase of approximately 3.6 AFY of water when compared to existing conditions.

The 3.6 AFY is representative of standard water consumption rates absent water conservation techniques. As indicated in the discussions earlier in this section, water supplies face challenges from drought, climate change, and pumping restrictions. Both MWD and the City include conservation as a portion of the future strategy to ensure that water supplies are maximized, while consumer demand is minimized. Based on the water supply and demand comparison presented in Table IV.F-4, the PWP would be able to supply the projected demand based on existing entitlements. However, the City of Pasadena requires that projects conserve at least 20 percent on potable water for water supply impacts to be considered less than significant. Therefore, mitigation measures have been prescribed to ensure that potentially significant impacts regarding water supply are reduced to a less than significant level.

4. MITIGATION MEASURES

The City requires that projects conserve at least 20 percent on potable water to be considered less than significant. Therefore, the Water Efficiency Credit shall become a mitigation measure to ensure that on-site consumption is reduced by 20 percent.

Mitigation Measure F-1: The water usage of the proposed building to be retained shall be reduced by 20 percent, in accordance with section 14.90.050 of the Pasadena Municipal Code. In order to demonstrate this reduction, the Applicant ~~shall use Worksheet WS-1 and WS-2 from Chapter 11 of the California Green Building Standards Code (CGBC) entitled "Baseline Water Use" and "20% Reduction Water Use Calculation Table." Reductions to the project's water usage shall be demonstrated to the Planning Division prior to building permit approvals.~~ must submit a water-conservation plan for review and approval by the Planning Division. This plan is also subject to review and approval by the City's Water and Power Department and the Building Division before the issuance of a building permit. The plan must demonstrate the ability to limit water consumption to 80 percent of its originally anticipated amount. The project's irrigation and plumbing plans are also required to comply with the approved water-conservation plan. For this project, the original amount is 22,640 gallons/day and the required 20 percent reduction is 4,528 gallons/day. Plumbing permits required in order to complete this reduction shall be finalized prior to certificate of occupancy.

Mitigation Measure F-2: The Applicant shall submit a detailed landscape plan that proposes the planting of "California Friendly" plants and the use of high efficiency irrigation technology. Landscape and irrigation plans shall be submitted for review with each phase of the project and shall be reviewed by the Design Commission in combination with the building plans.

5. CUMULATIVE IMPACTS

The proposed Project, in conjunction with planned and pending development, would create additional demand for water. However, as indicated earlier in this section and in tables IV.F-1 to IV.F-3, water supplies would be adequate over a 20-year planning horizon to serve projected development increases. It is noted that there may be periods when policies from local and regional plans to reduce water usage are implemented to offset reduced supplies during shortage periods. However, these conservation programs, in addition to plans and policies at the regional and local level and the development of additional diversified supplies, are part of the evolving strategy to continue meeting increasing water demands in the future. Provided that all

new developments implement measures to help meet the City's 20 percent conservation goal, the projects contribution to cumulative impacts after mitigation would not be considerable and cumulative impacts to water service would be less than significant.

6. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of Mitigation Measures F-1 and F-2 would result in a 20 percent reduction of water usage over normal baseline usage. These mitigation measures would achieve project consistency with the City's goal of increasing water conservation by 20 percent by 2020. Therefore, the Project's impact to water service would be less than significant with implementation of Mitigation Measures F-1 and F-2. Furthermore, as indicated in Table IV.F-3, future water supplies would be adequate to meet project demands through a 20-year planning horizon with implementation of conservation and groundwater recharge programs, both locally and regionally.

V. Alternatives

V. ALTERNATIVES

A. INTRODUCTION

CEQA requires that an EIR describe a reasonable range of alternatives to the project, or to the location of the project that could feasibly avoid or lessen significant environmental impacts while substantially attaining the basic objectives of the project. An EIR should also evaluate the comparative merits of the alternatives. This section sets forth potential alternatives to the proposed Project and evaluates them, as required by CEQA.

Key provisions of the CEQA Guidelines (Section 15126.6) pertaining to the alternatives analysis are summarized below.

- The discussion of alternatives shall focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.

- The no project alternative shall be evaluated along with its impact. The no project analysis shall discuss the existing conditions at the time the notice of preparation is published, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.

- The range of alternatives required in an EIR is governed by a "rule of reason"; therefore, the EIR must evaluate only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project.

- For alternative locations, only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.

- An EIR need not consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote and speculative.

- Based on the alternatives analysis, CEQA requires that an environmentally superior alternative be designated. If the environmentally superior alternative is the No Project Alternative, then the EIR is required to identify an environmentally superior alternative among the other alternatives.

- In addition, CEQA requires that an EIR identify any alternatives that were considered for analysis but rejected as infeasible. Such potential alternatives are described below.

The range of alternatives discussed in an EIR is governed by the "rule of reason," mentioned above, that requires the identification of only those alternatives necessary to permit a reasoned choice between the alternatives and the proposed Project. The range of feasible alternatives is selected and discussed in a manner to foster meaningful public participation and informed decision-making. Among the factors that may be taken into account when addressing the feasibility of alternatives (as described in CEQA Section 15126.6(f)(1)) are site suitability, economic viability, availability of infrastructure, general plan consistency, regulatory limitations, jurisdictional boundaries, and whether the proponent could reasonably acquire, control, or otherwise have access to the alternative site. An EIR need not consider an alternative if its effects cannot be reasonably identified, its implementation is remote or speculative, or if it would not achieve the basic project objectives.

The alternatives analyzed below have been selected to address the Project's significant impacts: the significant NOx emissions during construction and the significant street segment impact on Pico Street. The No Project Alternative, required by CEQA, shows how the proposed Project's impacts would be avoided with no material change in the uses and conditions on the site. The second alternative analyzed, the Reduced Density Alternative presents a means of reducing impacts by reducing the size of the project. The Medical Office/Commercial Use Alternative does not reduce impacts but has been analyzed to inform the decision-making process by showing the environmental consequences of a different mix of uses on the site that could occur in conformance with applicable plans and regulations if the proposed Project were not to proceed.

B. PROJECT OBJECTIVES

As discussed in Section II, Project Description, the Applicant would be required to complete the following actions to implement the proposed Project: (1) Minor Conditional Use Permit (CUP) for Tandem Parking (Hearing Officer); (2) Minor CUP for Transit Oriented Development (Hearing Officer); (3) Design Review (Design Commission); (4) Construction Staging and Traffic Management Plan (Department of Public Works); (5) Demolition, grading, foundation, and building permits; and (6) Such additional actions as may be determined necessary.

Consistent with the CEQA Guidelines, this section of the ~~Draft~~ EIR provides the list of objectives the Applicant seeks to achieve. These include the following development, design, and economic objectives:

- To promote transit-oriented development in the South Fair Oaks Specific Plan area through development of an urban office project consistent with the permitted density within the South Fair Oaks Specific Plan, in proximity to employment, the Gold Line and other transit opportunities.

- To provide an aesthetically attractive office project with pedestrian friendly and community enhancing features, including a large inviting landscaped plaza at the intersection of California Boulevard and Fair Oaks Avenue.

- To develop a project that provides substantial public open space and creates an attractive pedestrian environment.

- To enhance the appearance of the South Fair Oaks Specific Plan area by redeveloping an underutilized site containing obsolete and deteriorating buildings with a modern structure of exceptional architectural design.

- To provide a distinctive office project that will attract and retain businesses in Pasadena and promote economic diversity and jobs in the City.

- To enhance the South Fair Oaks Specific Plan area's prestige as a center for high-quality commercial development.

- To construct a state-of-the-art sustainable development, thereby reducing dependence on non-renewable resources, and that encourages recycling for both construction activities and long-term operation.

C. ALTERNATIVES ELIMINATED FROM FURTHER CONSIDERATION

An EIR must briefly describe the rationale for selection and rejection of alternatives. The lead agency may make an initial determination as to which alternatives are feasible and therefore merit in depth consideration, and which are infeasible. Alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, need not be considered (CEQA Guidelines, Section 15126.6(f)(3)). This section identifies alternatives considered by the City of Pasadena, the lead agency, but rejected as infeasible, and provides a brief explanation of the reasons for their exclusion. Alternatives may be eliminated from detailed consideration in the EIR if they fail to meet most of the project objectives, are infeasible, or do not avoid any significant environmental effects (CEQA Guidelines, Section 15126.6(c)).

1. Alternative Site Uses

The Project site was reviewed regarding its ability to accommodate alternative uses that might eliminate and/or reduce the Project's significant impacts. The range of feasible uses is limited due to the character of the site, its surroundings and its role within the South Fair Oaks Specific Plan area. Many uses, such as residential development, would not be suited for the Project site and, indeed, would not be permitted per the City's Zoning standards. Residential development would not be consistent with the Specific Plan, which seeks to provide a "… district for biomedical and technology-based companies which can prosper alongside an energetic mix of community serving retail, medical facilities and support services;" consistent with the existing uses in the Project area. If the Project site were not developed for office uses, other commercial uses might be proposed as an alternative use. However, the utility of analyzing such an alternative would be limited as the existing site includes commercial retail development. Although evaluation of an all commercial alternative was eliminated from further consideration, it was decided that an alternative incorporating commercial development and medical office uses be evaluated to illustrate the potential effects of another potential development that could occur on the site in conformance with City plans and regulations.

Generally speaking, the selection of an alternative use at the Project site has limited value in reducing the Project's significant impacts. The proposed Project's only significant impacts pertain to NOx emissions during construction and a significant street segment impact on Pico Street. Construction activities for projects similar in size to that of the proposed Project typically cause an exceedance of the NOx emissions thresholds, and such impacts cannot be avoided by altering the longer term uses of the Project site. The significant impact on Pico Street is a function of the relative increase in the number of daily trips from project operations on a roadway with low traffic volumes. Therefore, alternative uses that eliminate the significant impact would not necessarily enhance traffic operations in a meaningful way.

2. Alternative Site Design

The City also considered alternatives based on a redesign of the Project site. The City concluded that the Project is appropriate for the use, consistent with the Design Guidelines of the South Fair Oaks Specific Plan, and consistent with the height, setback, and open space requirements of the City's Zoning Code. Accordingly, the size of the site and zoning requirements would not support a substantial alteration in the basic design of the proposed Project. Further, there are no significant impacts that could be avoided through a project redesign**.**

3. Alternative Locations

The proposed Project is intended to develop a site that is currently under the ownership of the Project Applicant. CEQA does not require that alternatives be evaluated for sites that proponents cannot reasonably acquire, control or otherwise have access to. The costs for property acquisition at a new location and the lost investment at the current site would be substantial and likely prohibitive.

Further, the City considered other sites in the project area and noted that the proposed site is well suited for the proposed use, and that an alternative at an alternative site would not likely result in a meaningful change or reduction in the impacts of the Project given the built out nature of the area. For example, traffic impacts could actually be more substantial at an alternate site and the Project's significant construction impact would not be avoided. Furthermore, Project impacts could be greater at an alternative site, if it were to be located in closer proximity to sensitive uses. For these reasons, an Alternative Location alternative was eliminated from further consideration and evaluation.

D. ALTERNATIVES TO THE PROPOSED PROJECT

1. Summary of Alternatives

The alternatives analyzed include the mandatory No Project Alternative, and a Reduced Density Alternative. Both were selected due to their potential to at least partially meet the basic objectives of the proposed Project, and to lessen or avoid significant environmental effects resulting from implementation of the proposed Project.

No Project Alternative. Section 15126.6(e) of the CEQA Guidelines requires the analysis of a No Project Alternative. This no project analysis must discuss existing conditions, as well as what would be reasonably expected to occur in the foreseeable future if the project were not to be approved based on current plans, site zoning, and consistent with available infrastructure and community services. Because the proposed Project is a development project, Section 15126.6(e)(3)(B) of the CEQA Guidelines is directly applicable to the proposed Project.

> *"If the project is a development project on an identifiable property, the "no project" alternative is the circumstance under which the project does not proceed. Here the discussion would compare the environmental effects of the property remaining in its existing state against environmental effects which would occur if the project is approved. If disapproval of the project would result in predictable actions by others, such as the proposal of some other project, this "no project" consequence should be discussed. In certain instances, the "no project"*

alternative means "no build" wherein the existing environmental setting is maintained. However, where failure to proceed with the project will not result in preservation of existing environmental conditions, the analysis should identify the practical result of the project's non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment."

The No Project Alternative assumes that the property would remain in its existing state as there are no known predictable actions, such as an alternative project, that would occur on the site if the proposed Project were not approved. Under the No Project Alternative there would be no demolition of the existing buildings and it is assumed that the buildings would be rented with commercial uses similar to those which have occupied the Project site in the past. It is assumed that minor tenant improvements would be provided but that there would be no development of new buildings. As such, the No Project Alternative would provide 12,635 square feet of commercial space that would be occupied by restaurants or other complementary uses. The site would continue to contain approximately 75 parking spaces.

Reduced Density Alternative. The Reduced Density Alternative would include the same office uses as the proposed Project with the overall site density reduced by 16 percent, which is the point at which the potential traffic impacts along Pico Street would not exceed the City's 4.9 percent threshold for physical mitigation for roadway segments. As such the Reduced Density Alternative would reduce project development from 113,200 gross sf. to 95,088 gross sf. of development (82,453 gross sf. of new development). With less development on the Project site, parking could be reduced from 255 parking spaces to 214 spaces. It is assumed that the site layout and access would be similar to the proposed Project since that layout provides efficient accessibility and has been designed to accommodate site access with maximum distances between the garage entrance and site entry points. The reduction in density under this alternative would be achieved through a 16 percent reduction in the building footprint.

Medical Office/Commercial Use. If an office building of the type proposed did not proceed, possible alternative uses that might be pursued include medical office and/or commercial activity. Therefore, an alternative has been included in this analysis that is based on a building of generally similar size and configuration to that of the proposed Project; but with an alternative mix of uses. The No Project – Medical/Office Commercial Use Alternative would include 75,000 square feet of medical office use, and 25,000 square feet of commercial space, in a four story building with commercial activities on the ground floor. It would include commercial activity to complement the on-site medical uses as well as serve the off-site project vicinity.

2. Alternatives Impact Analysis

This section presents an analysis of the project alternatives, including the No Project Alternative, the Reduced Density Alternative, and the Medical Office/Commercial Alternative. The section also provides a comparison of the impacts between these alternatives and the proposed Project for those environmental issues addressed in this ~~Draft~~ EIR. The comparative summary is presented in Table V-1, Comparison of Alternatives and Proposed Project, on page V-26. In all cases, the comparison of impacts assumes all feasible mitigation measures as identified in this EIR have been implemented for the impacts resulting from the proposed Project. Similarly, in all cases where it can be safely assumed that there are feasible mitigation measures for impacts caused by the alternative, it is assumed that those mitigation measures would be implemented. In accordance with CEQA Guidelines Section 15626.6(d), the discussion of the environmental effects of the alternatives may be less than that provided for the proposed Project.

(a) Alternative 1, No Project Alternative

(1) Description

The No Project Alternative assumes existing conditions would be generally maintained on the Project site. The existing uses would continue to operate, and there would be no demolition of the existing buildings. In time, the buildings would receive minor improvements, as necessary to accommodate new tenants. In time the existing buildings could continue to provide 12,635 square feet of commercial space that would be occupied by restaurants or other complementary uses. The site would continue to contain approximately 75 parking spaces.

(2) Comparative Analysis

Air Quality

Construction

The No Project Alternative would involve no significant construction impacts, with negligible impacts on air quality emissions. Improvements might include minor interior renovation and exterior upgrades, e.g. painting, etc. Construction materials would be limited and used in accord with applicable regulations. No site grading would occur. Therefore, the significant impacts associated with the proposed Project for NO_x would not occur and less than significant impacts for PM10, PM2.5, CO, VOC, SOX, TAC and odors would not occur or would be negligible. The No Project Alternative would not result in a meaningful increase in

greenhouse gases due to construction. However, impacts of the proposed Project due to greenhouse gases are less than significant.

Operation

The No Project Alternative would not alter the operations on the Project site, and therefore would have no operational impacts on regional criteria pollutant emissions, local CO concentrations, TAC, odors or consistency with the AQMP. Impacts would be consistent with those of the uses that have occupied the site. While this would be a relative reduction in the level of air quality emissions as compared to the proposed Project, it would not eliminate any significant impacts as the air emissions from the proposed Project are less than significant. The No Project Alternative would not include the positive direct and indirect benefit with regard to the reduction of vehicle trips and vehicles miles traveled that are associated with the proposed Project, which provides for increased density within a transit oriented development (TOD) area, and within a transit rich area having close access to the Gold Line and Bus Lines 20, 51, and 70; and which encourages pedestrian activity. However, overall, the operations impacts of the proposed Project would conservatively be considered greater.

Cultural Resources – Historic Resources

The No Project Alternative would likely result in the removal of the two signs of historic significance, when new tenants occupy the Project site and install their own signs. At the same time, removal of the existing signs would be expected to be provided with the same curation of the signs as the proposed Project. The impacts of the No Project Alternative would be similar to those of the proposed Project, and like the proposed Project would be less than significant.

Cultural Resources – Archaeologic and Paleontologic Resources

Paleontological Resources

The No Project Alternative would require no demolition and no excavation, and therefore could not have an impact on paleontologic resources if any were to be present. Under the proposed Project there is such a potential and, therefore, the potential impact is considered significant prior to mitigation. However, the proposed Project includes mitigation measures to provide for identification, cataloguing and curation of encountered materials. Since the No Project Alternative would have no impacts, its impact would be less than those of the proposed Project, and like the proposed Project would be less than significant.

Archaeological Resources

The No Project Alternative would require no demolition and no excavation and. therefore. could not have an impact on archaeologic or Native American resources should they be present. Under the proposed Project there is only a low to moderate potential of encountering resources. Nonetheless, the proposed Project includes mitigation measures to address the unexpected uncovering of such resources. The measures include potential preservation in place where practical and interpretation, documentation and reporting of discovered resources. Any human remains encountered would be checked for Native American descent, with any such remains resulting in consultation with the NAHC and development of a course of action with preservation of the remains in place and project design alternatives as considerations. Thus, the No Project Alternative would lose the opportunity for the discovery of archaeologic resources, but would also avoid the potential impact on a burial site. Therefore, impacts of the proposed Project would, on net, be less than those of the proposed Project, and like those of the proposed Project would be less than significant.

Noise

Construction

The No Project Alternative would include no construction and, therefore, would generate no construction noise; or only very minor construction noise associated with minor building renovation. In contrast, the proposed Project would generate construction noise and vibration that would affect buildings approximately 20 feet to the south. The noise levels would be less than the City's noise limit of 85 dBA at a distance of 100 feet, and the vibration would be less than the threshold value of 0.2 inches per second PPV. Notwithstanding, mitigation measures are proposed to reduce the construction noise. Therefore, impacts of the No Project Alternative due to construction noise and vibration would be less than those of the proposed Project, and like the proposed Project would be less than significant.

Operation

The No Project Alternative would generate no new noise from traffic, mechanical equipment, loading docks, or parking facilities, over that which has historically occurred on the Project site. The proposed Project would generate increased noise from increased traffic, and similar noise levels for mechanical equipment, loading docks, and parking activities; however, the increase in noise would be less than significant. Impacts of the No Project Alternative would be less than those of the proposed Project, and like those of the proposed Project would be less than significant.

Traffic

Construction

The No Project Alternative would require no new construction and, therefore, would not generate any traffic impacts due to construction. However, the proposed Project's impacts on traffic due to construction are limited because of the traffic controls that would be implemented through a Construction Staging Management Plan. Impacts of the No Project Alternative would be less than those of the proposed Project, and like those of the proposed Project would be less than significant.

Operation

Street Impacts

The No Project Alternative would generate no new traffic and, therefore, would generate no new traffic impacts due to project operations. The proposed Project has a significant street segment impact on Pico Street; otherwise impacts on the roadway system are less than significant. The No Project Alternative would avoid the proposed Project's one significant impact. However, the significant impact associated with the proposed Project results from the percentage increase in traffic on a street with low traffic volumes, and the proposed Project would not result in traffic congestion. The impacts of the No Project Alternative on traffic operation on the street network surrounding the Project site would be less than those of the proposed Project. Impacts on neighborhood intersections are less than significant under the proposed Project.

Access

The No Project Alternative would have no impact on site accessibility. Site access would continue to be from driveways directly into the Project site on Fair Oaks Avenue, California Boulevard and Edmondson Alley. The proposed Project would include an access system that has been designed to accommodate the project needs. The Project has been designed to minimize off-site queuing, maintain satisfactory service ability for Edmondson Alley, and not introduce project access features that would create or substantially increase hazards of pedestrian or vehicles; thereby resulting in impacts that would be less than significant. However, since the proposed Project would increase the number of vehicles entering the Project site, the No Project Alternative would have fewer impacts than the proposed Project and would also be less than significant.

Hazards

Construction

The No Project Alternative would not include demolition or excavation activities and would have no impact with regard to hazardous conditions. At the same time, the No Project Alternative would leave in place hazardous materials, e.g. asbestos containing materials and lead based paint which are considered hazardous substances, as well as the negligible, actionable level of TPH located within the soil. The proposed Project would have the potential for exposure to existing site contaminants, particularly for construction workers. However this exposure would be limited through regulatory provisions and measures, implemented as mitigation measures, which would ensure public safety. The No Project Alternative would not provide the same level of site remediation as would the proposed Project. Nonetheless, the No Project Alternative would have no impact and, therefore, less impact than the proposed Project. As is the case with the proposed Project, construction impacts in regard to hazardous materials would be less than significant.

Operation

The No Project Alternative would leave in place existing site uses, which in part use common hazardous materials similar to those used in office buildings: e.g. the use and storage of small quantities of potentially hazardous materials in the form of cleaning solvents and pesticides for landscaping. At the same time, the existing auto body shop uses a great range of products that may contain contaminants; however, use of such contaminants is regulated for public safety. Therefore, impacts associated with the No Project Alternative would be similar to those of the proposed Project. In both cases, such materials would be handled in compliance with manufacturer's specifications and applicable standards and regulations. Thus, impacts of the No Project Alternative and the proposed Project regarding hazardous materials would be less than significant.

Water Supply

The No Project Alternative would not increase the water consumption at the Project site, which is estimated to be 12,715 gallons per day. At the same time the No Project Alternative would not incorporate water conservation features as would the proposed Project. The proposed Project would increase water consumption by 9,925 gallons per day for a total of 22,640 gallons per day; but would incorporate water conservation features, thus providing for a more efficient use of water resources. While the proposed Project makes better use of water resources, the No Project Alternative would have less impact on water supply, and its impacts like those of the proposed Project, would be less than significant.

(3) Conclusion and Relationship to Project Objectives

The No Project Alternative would eliminate the proposed Project's significant unavoidable impacts, including the increase in street segment traffic on Pico Street, and the air quality (NOx) impacts due to construction. The No Project Alternative would also reduce other project impacts to less than significant levels through mitigation. At the same time, it would not provide the benefits to the AQMP of locating such a project in a well served transit location, TOD; and would not allow for the site remediation of past hazardous materials, and replacement of dated buildings with a more sustainable and attractive development project.

Although the No Project Alternative would reduce or avoid the proposed Project's environmental impacts, and would not result in any significant environmental impacts, it would not achieve most of the basic objectives of the proposed Project. It would not provide the type of project proposed by the Applicant nor the type of project encouraged in the South Fair Oaks Specific Plan. The No Project Alternative would not provide a transit-oriented urban office project consistent with the permitted density in proximity to employment, the Gold Line and other transit opportunities; provide a project that will attract and retain businesses in Pasadena and promote economic diversity and jobs in the City; nor enhance the Specific Plan area's prestige as a center for high-quality development. Further, the No Project Alternative would not enhance the appearance of the Project site. It would not redevelop an underutilized site with obsolete and deteriorating buildings and limited landscaping with a modern structure of exceptional architectural design; nor provide an attractive office project design with pedestrian friendly public open space/landscaped plaza. The No Project Alternative would not convert the existing site development into a sustainable model of development; although it could encourage greater recycling efforts.

(b) Alternative 2, Reduced Density Alternative

(1) Description

The Reduced Density Alternative would include the same office uses as the proposed Project with the overall site density reduced by 16 percent, which is the point at which the potential traffic impacts along Pico Street would not exceed the City's 4.9 percent threshold for physical mitigation for roadway segments. As such, the Reduced Density Alternative would reduce project development from 113,200 gross square feet to 95,088 gross square feet of development (82,453 gross square feet of new development). With less development on the Project site, parking could be reduced from 255 parking spaces to 214 spaces. It is assumed that the site layout and access would be similar to the proposed Project since that layout provides efficient accessibility and has been designed to accommodate site access with maximum

distances between the garage entrance and site entry points. The most likely design would be a 16 percent reduction in the building footprint.

(2) Comparative Analysis

Air Quality

Construction

The Reduced Density Alternative would require demolition of the existing buildings and construction of a new building, with underground parking. However, by reducing the overall density of the development, the amount of construction and excavation would be reduced by approximately 16 percent thus reducing the air quality emissions, and reducing in particular the level of NO_x Impacts of the proposed Project were significant for $NO_{x,}$ while less than significant for PM_{10}, $PM_{2.5}$, CO, VOC, SO_X, TAC and odors. The Reduced Density Alternative would also reduce the level of greenhouse gases due to construction. While the impacts of the Reduced Density Alternative would be less than those of the proposed Project, the resulting impact for NO_x would still be significant on a daily basis. The smaller project size would likely decrease the time over which construction occurs, i.e. it would reduce the number of days on which NO_x impacts occur, but would not change the maximum generation on any one day. (The significance impact for construction regional emissions is based on a calculation of maximum daily impacts.)

Operation

The Reduced Density Alternative would add additional and new operations to the Project site compared to existing conditions, thus increasing air quality emissions that would be generated from on-site activity. However, with less office space than the proposed Project on-site activity would be reduced; and operations impacts on regional criteria pollutant emissions, local CO concentrations, TAC, and odors would be reduced. While this would be a relative reduction in the level of air quality emissions, it would not eliminate any significant impacts as the air emissions from the proposed Project are less than significant. The Reduced Density Alternative would like the proposed Project have AQMP benefits regarding the reduction of vehicle trips and vehicles miles traveled that are associated with the proposed Project, which increases density within a transit oriented development (TOD) area, and within a transit rich area having close access to the Gold Line and Bus Lines 20, 51, and 70; and which encourages pedestrian activity. However, the Reduced Density Alternative would not have the same level of benefit with regard to increasing density within the TOD. The non-significant operations impacts of the Reduced Density Alternative on air quality would be less than those of the proposed Project.

Cultural Resources – Historic Resources

The Reduced Density Alternative would, like the proposed Project, require the removal of the two signs of historic significance. At the same time, the Reduced Density Alternative would be expected to provide the same curation of the signs as the proposed Project, which would possibly be beneficial to the community. The impacts of the Reduced Density Alternative would be similar to those of the proposed Project and, like the proposed Project, would be less than significant.

Cultural Resources – Archaeologic and Paleontologic Resources

Paleontological Resources

The Reduced Density Alternative would require demolition and excavation on the Project site and, therefore, could have an impact on paleontologic resources if any were to be present. Under the proposed Project there is also such a potential and, therefore, the potential impact is considered significant prior to mitigation. However, the proposed Project includes mitigation measures to provide for identification, cataloguing and curation of encountered materials. Such mitigation measures would be applied to the Reduced Density project as well. Since the Reduced Density Alternative would affect a lesser volume of excavation, the potential impacts of construction on paleontological resources would be considered less than those of the proposed Project; and like those of the proposed Project, would be less than significant.

Archaeological Resources

The Reduced Density Alternative would require demolition and excavation, and therefore could have an impact on archaeologic or Native American resources should they be present. Under the proposed Project there is only a low to moderate potential of encountering resources. Nonetheless, the proposed Project includes mitigation measures that would be applicable to the Reduced Density Alternative as well, to address the unexpected uncovering of such resources. The measures include potential preservation in place where practical and interpretation, documentation and reporting of discovered resources. Any human remains encountered would be checked for Native American descent, with any such remains resulting in consultation with the NAHC and development of a course of action with preservation of the remains in place and project design alternatives as considerations. Since the amount of excavation required for the Reduced Density Alternative would be less, the potential of encountering and impacting a resource would be less. Impacts of the Reduced Density Alternative, like those of the proposed Project, would be less than significant.

Noise

Construction

The Reduced Density Alternative would include construction activities, and therefore would generate construction noise. As noted for the proposed Project, construction on the Project site would generate construction noise and vibration that would affect buildings approximately 20 feet to the south. The noise levels would be less than the City's noise limit of 85 dB at a distance of 100 feet, and the vibration would be less than the threshold value of 0.2 inches per second PPV. Nonetheless, mitigation measures are proposed to reduce the construction noise. The maximum noise and vibration levels for the Reduced Density Alternative would be similar to those of the proposed Project; however, the construction noise would occur for fewer days with the smaller construction program. Therefore, impacts of the Reduced Density Alternative due to construction noise and vibration would be less than those of the proposed Project, and like the proposed Project would be less than significant.

Operation

The Reduced Density Alternative would generate new noise from traffic, mechanical equipment, loading docks, or parking facilities. The proposed Project's noise from all of these noise sources was determined to be less than significant for each. With reduced site activity and trip generation, impacts of the Reduced Density Alternative would be less than those of the proposed Project and, like those of the proposed Project, would be less than significant.

Traffic

Construction

The Reduced Density Alternative would require new construction and therefore would generate traffic impacts due to construction. The proposed Project's impacts on traffic due to construction would be limited because of the traffic controls that would be implemented through a Construction Staging Management Plan. Impacts of the Reduced Density Alternative would be less than those of the proposed Project since the construction activities would occur over fewer days, and like those of the proposed Project would be less than significant.

Operation

Street Impacts

The Reduced Density Alternative would generate new traffic impacts with the addition of an office building on the Project site. The trip generation would be reduced from that of the proposed Project by 16 percent, producing 1,047 weekday trips in contrast to the proposed Project's 1,246 weekday trips. However, the net increase, which was 253 trips for the proposed Project after credits for a TDM program, previous land use and existing land use, would be 74 trips or 29.2 percent of the proposed Project's increase. The proposed Project has a significant street segment impact on Pico Street; otherwise impacts on the roadway system are less than significant. Assuming a similar trip percentage of new trips using Pico Street for the Reduced Density Alternative, approximately 74 percent or 55 new daily trips would occur on Pico Street. This is an increase of approximately 4.8 percent over the estimated 2010 1,136 trips occurring along the street segment, requiring soft mitigation. This is within the 4.9 percent physical mitigation criterion and would be less than significant, avoiding the proposed Project's one significant unavoidable traffic impact. The significant impact associated with the proposed Project results from the percentage increase in traffic on a street with low traffic volumes, and the proposed Project itself would not result in traffic congestion. The reduction would not be sufficient to reduce the LOS levels at any of neighborhood intersections; e.g. the intersection of Fair Oaks and California Boulevard would continue to operate at LOS C during the A.M and P.M peak hours. Impacts of the Reduced Density Alternative would be less than those of the proposed Project, and remain less than significant.

Access

The Reduced Density Alternative would have a site access plan similar to that of the proposed Project but would generate fewer vehicles entering the Project site. The proposed Project would include an access system that has been designed to accommodate the Project needs with provision of queuing on-site. Impacts would be negligible and less than significant. However, since the Reduced Density Alternative would decrease the number of vehicles entering the Project site, the Reduced Density Alternative would have fewer impacts than the proposed Project and would also be less than significant.

Hazards

Construction

The Reduced Density Alternative would include demolition and excavation activities and would therefore have a potential to encounter hazardous substances, e.g. asbestos containing

materials and lead based paint. The proposed Project would also cause exposure to existing site contaminants, particularly for construction workers however this exposure would occur through regulatory measures, included as mitigation measures which would ensure public safety. The Reduced Density Alternative would also be required to provide site remediation. Impacts regarding the potential to encounter hazardous materials under the Reduced Density Alternative would be less than those of the proposed Project. As is the case with the proposed Project, construction impacts in regard to hazardous materials would be less than significant.

Operation

The Reduced Density Alternative would use similar hazardous materials to those used in the proposed Project's office building, e.g. the use and storage of small quantities of potentially hazardous materials in the form of cleaning solvents and pesticides for landscaping. Therefore, impacts associated with the Reduced Density Alternative would be similar to those of the proposed Project. In both cases, such material would be handled in compliance with manufacturer's specifications and applicable standards and regulations. Thus, impacts of Reduced No Density Alternative and the proposed Project regarding hazardous materials would be less than significant.

Water Supply

The Reduced Density Alternative would increase the water consumption at the Project site to 18,112 gallons per day, which is an increase of 5,397 gallons per day over the 12,715 gallons per day associated with current and previous site use. In contrast the proposed Project would increase water consumption by 9,925 gallons per day, which is 80 percent greater than the Reduced Density Alternative. Both projects would be required to incorporate water conservation features, thus providing for more efficient use of water resources consistent with City requirements for avoiding significant impacts. Therefore, impacts of the Reduced Density Alternative on water supply would be less than those of the proposed Project, and like the proposed Project would be less than significant.

(3) Conclusion and Relationship to Project Objectives

The Reduced Density Alternative would avoid the proposed Project's potentially significant impact regarding streets segments but would not avoid its significant air quality (NOx) impacts due to construction. Beyond this, the Reduced Density Alternative would marginally reduce the proposed Project's non-significant impacts. At the same time, the Reduced Density Alternative would not provide the same beneficial contribution to the efficient use of the TOD zone for reducing regional vehicle miles.

The Reduced Density Alternative would only partially meet the objectives of the proposed Project. It fails to meet all of the objectives due to its decreased density. It would still provide a transit-oriented urban office project in proximity to employment, the Gold Line and other transit opportunities; provide a project that will attract and retain businesses in Pasadena and promote economic diversity and jobs in the City; and enhance the Specific Plan area's prestige as a center for high-quality development. However, it would not meet any of these objectives as fully as the proposed Project and would not meet the component of the objectives seeking a project consistent with permitted density. The Reduced Density Alternative would enhance the appearance of the Project site; redeveloping an underutilized site with obsolete and deteriorating buildings with a modern structure of exceptional architectural design; providing an attractive office project design with pedestrian friendly public open space/landscaped plaza, and converting the site development into a sustainable model of development.

(c) Alternative 3, Medical Office/Commercial Use Alternative

(1) Description

The Medical Office/Commercial Alternative represents an alternative that could feasibly be pursued if the proposed office uses were not approved for the Project site. The Medical/Office Commercial Use Alternative is based on a building of generally similar size and configuration to that of the proposed Project; but with an alternate mix of uses. It would include 75,000 square feet of medical office use, and 25,000 square feet of commercial space, in a four story building with commercial activities on the ground floor. The commercial uses would have an orientation toward the medical office activity including such uses a pharmacy, sit-down restaurant/cafeteria for office workers and visitors, etc. While many of the uses would be so oriented, commercial uses would serve the nearby and pass by population as well. The Project would include an access scheme similar to that of the proposed Project. This alternative would require 387 parking spaces or approximately 50 percent more than the proposed Project. This would require at least one additional level of subterranean parking as compared to the proposed Project, and the location of some surface parking spaces for quick stop commercial uses. It is assumed that the appropriate level of parking could be provided through an appropriate project/site design.

(2) Comparative Analysis

Air Quality

Construction

The Medical Office/Commercial Alternative would require demolition of the existing buildings and construction of a new building, with underground parking. The extent of this grading would be more extensive with this alternative than with the proposed Project due to the additional grading that would be required to provide the necessary parking, thus increasing air emissions levels, in particular the level of $NO_{x,}$ which was significant for the Project. It would also increase emissions for PM_{10}, $PM_{2.5}$, CO, VOC, SO_X, TAC and odors. PM_{10}, and $PM_{2.5}$, emissions could, although not necessarily, become significant. Either the increased excavation could be carried out over a longer time frame resulting in the same level of daily emissions as the Project, or if done in the same time frame would increase the daily emissions. (The significance impact for construction regional emissions is based on a calculation of maximum daily impacts.) The Medical Office/Commercial Alternative would also increase the level of greenhouse gases due to construction.

Operation

The Medical Office/Commercial Alternative would add additional, new operations to the Project site thus increasing the air quality emissions that would be generated from on-site activity. However, this alternative would generate more traffic than the proposed Project thus increasing operations impacts on regional criteria pollutant emissions and local CO concentrations. Toxic Air Contaminants (TAC) would be similar and odors could be increased due to food preparation in the alternative's commercial component. The Medical Office/Commercial Alternative would, like the proposed Project, have AQMP benefits regarding the reduction of vehicle trips and vehicles miles traveled that are associated with the proposed Project: increased density within a transit oriented development (TOD) area, within a transit rich area having close access to the Gold Line and Bus Lines 20, 51, and 70, and encouragement of pedestrian activity. The non-significant operations impacts of the Medical Office/Commercial Alternative on air quality would be greater than those of the proposed Project, although they may still remain less than significant.

Cultural Resources – Historic Resources

The Medical Office/Commercial Alternative would, like the proposed Project, require the removal of the two signs of historic significance. At the same time, the Medical Office/Commercial Alternative would be expected to provide the same curation of the signs as the proposed Project, which would possibly be beneficial to the community. The impacts of the

Medical Office/Commercial Alternative would be similar to those of the proposed Project, and like the proposed Project would be less than significant.

Cultural Resources – Archaeologic and Paleontologic Resources

Paleontological Resources

The Medical Office/Commercial Alternative would require demolition and excavation on the Project site and, therefore, could have an impact on paleontologic resources if any were to be present. Under the proposed Project there is also such a potential and therefore the potential impact is considered significant prior to mitigation. However, the proposed Project includes mitigation measures to provide for identification, cataloguing and curation of encountered materials. Such mitigation measures would be applied to the Medical Office/Commercial Alternative project as well. Since the Medical Office/Commercial Alternative would affect a greater volume of excavation, the potential impacts of construction on paleontological resources would be considered greater than those of the proposed Project; and like those of the proposed Project would be less than significant, due to mitigation.

Archaeological Resources

The Medical Office/Commercial Alternative would require demolition and excavation, and, therefore, could have an impact on archaeologic or Native American resources should they be present. Under the proposed Project there is only a low to moderate potential of encountering resources. Nonetheless, the proposed Project includes mitigation measures, which would be applicable to the Medical Office/Commercial Alternative as well, to address the unexpected uncovering of such resources. The measures include potential preservation in place where practical and interpretation, documentation and reporting of discovered resources. Any human remains encountered would be checked for Native American descent, with any such remains resulting in consultation with the NAHC and development of a course of action with preservation of the remains in place and project design alternatives as considerations. The greater depth of excavation required for the Medical Office/Commercial Alternative would occur below the area of likely archaeological resources should any be present. Therefore, the potential of encountering and impacting a resource would be similar to those of the proposed Project. Impacts of the Medical Office/Commercial Alternative, like those of the proposed Project, would be less than significant.

Noise

Construction

The Medical Office/Commercial Alternative would include construction activities, and therefore would generate construction noise. As noted for the proposed Project, construction on the Project site would generate construction noise and vibration that would affect buildings approximately 20 feet to the south. The noise levels would be less than the City's noise limit of 85 dB at a distance of 100 feet, and the vibration would be less than the threshold value of 0.2 inches per second PPV. Notwithstanding, mitigation measures are proposed to reduce the construction noise. The maximum noise and vibration levels for the Medical Office/Commercial Alternative would be similar to those of the proposed Project; however, the construction noise could occur for a greater number of days due to the additional excavation required for the alternative. Therefore, impacts of the Medical Office/Commercial Alternative due to construction noise and vibration would be greater than those of the proposed Project, and like the proposed Project would be less than significant.

Operation

The Medical Office/Commercial Alternative would generate new noise from traffic, mechanical equipment, loading docks, or parking facilities. The proposed Project's noise from all of these noise sources was determined to be less than significant for each. With increased traffic generation, impacts of the Medical Office/Commercial Alternative would be greater than those of the proposed Project, but could still be less than significant.

Traffic

Construction

The Medical Office/Commercial Alternative would require new construction and therefore would generate traffic impacts due to construction. The proposed Project's impacts on traffic due to construction would be limited because of the traffic controls that would be implemented through a Construction Staging Management Plan. Impacts of the Medical Office/Commercial Alternative would be slightly greater than those of the proposed Project due to the amount of excavation that would be required for an additional level of subterranean parking. However, this alternative would implement a similar Construction Staging Management Plan, and its construction impacts, like those of the proposed Project, would be less than significant.

Operation

Street Impacts

The Medical Office/Commercial Alternative would generate new traffic at the Project site of approximately 3,610 trips per day. This contrasts with the 1,246 trips for the proposed Project. When accounting for TDM credit, drive by credit for restaurants and credit for existing site uses the Medical Office/Commercial Alternative has a net increase in the number of trips of 2,381 in contrast to the proposed Project's net increase of 253 daily trips. The proposed Project's additional 253 trips were concluded to result in a significant street segment impact on Pico Street. Otherwise impacts on the roadway system for the proposed Project are less than significant. Assuming a similar trip percentage of new trips using Pico Street for the Medical Office/Commercial Alternative, approximately 74 percent or 1,762 new trips would occur on Pico Street. This is an increase of approximately 22 percent over the existing 2008, 1,125 daily trips occurring along the street segment. This is substantially greater than the City's 2.5 percent soft mitigation criterion, 5.0 percent physical mitigation, and 7.5 percent extensive physical mitigation criterion. The significant impact associated with the proposed Project results from the percentage increase in traffic on a street with low traffic volumes, and the proposed Project would not result in traffic congestion. However, the substantially greater level of traffic with the alternative would be likely to result in significant impacts not identified for the proposed Project.

The proposed Project has less than significant impacts on nearby intersection operations during the A.M. and P.M. peak hours. In contrast, the Medical Office/Commercial Alternative would add substantially more traffic to the intersections. During the A.M. peak hour, the Medical Office/Commercial Alternative would add an estimated 213 trips to the roadway system or 148 net trips after accounting for TDM, pass by and existing/previous use credits. This increase is 31 percent greater the proposed Project increase of 113 trips. During the P.M. peak hour, the Medical Office/Commercial Alternative would add an estimated 360 trips to the roadway network, or 212 net trips after accounting for TDM, pass by and existing/previous use credits. This is increase is 5.3 times greater than the increase of the proposed Project's 40 trips. This increase could potentially lead to a significant impact.

Access

The Medical Office/Commercial Alternative would have a site access plan similar to that of the proposed Project, but would experience more vehicles entering the Project site. The proposed Project would include an access system that has been designed to accommodate the project needs with provision of queuing on-site. Impacts would be negligible and less than significant. Since the Medical Office/Commercial Alternative would increase the number of vehicles entering the Project site, the Medical Office/Commercial Alternative would have greater impacts than the proposed Project. However, given the queuing availability on-site and the

mixed-use distribution of vehicles over the day, a sufficient access plan could be accommodated within the design of the alternative, and as was the case with the proposed Project, access impacts would be less than significant.

Hazards

Construction

The Medical Office/Commercial Alternative would include demolition and excavation activities and would therefore have a potential to encounter hazardous substances, e.g. asbestos containing materials and lead based paint. The proposed Project would also cause exposure to existing site contaminants, particularly for construction workers however this exposure would occur through regulatory measures, included as mitigation measures which would ensure public safety. The Medical Office/Commercial Alternative would also be required to provide site remediation. Impacts regarding the potential to encounter hazardous materials under the Medical Office/Commercial Alternative would be less than those of the proposed Project. As is the case with the proposed Project, construction impacts in regard to hazardous materials would be less than significant.

Operation

The Medical Office/Commercial Alternative would to some extent use similar hazardous materials to those used in the proposed Project's office building, e.g. the use and storage of small quantities of potentially hazardous materials in the form of cleaning solvents and pesticides for landscaping; although in lesser amount. Therefore, impacts associated with the Medical Office/Commercial Alternative would be similar to those of the proposed Project. In both cases such material would be handled in compliance with manufacturer's specifications and applicable standards and regulations. In addition, medical offices may require the handling of some hazardous substances, in compliance with regulations for the handling of such materials. Thus, potential impacts of the Medical Office/Commercial Alternative could be greater than those of the propose Project, but as is the case with the proposed Project, impacts regarding hazardous materials due to operations would be less than significant.

Water Supply

The Medical Office/Commercial Alternative would increase the water consumption at the Project site to approximately 33,649 gallons per day, which is an increase of 20,934 gallons per

day over the 12,715 gallons per day associated with current and previous site use.[1] In contrast the proposed Project would increase water consumption by 9,925 gallons per day, or approximately one half the amount of the Medical Office/Commercial Alternative. Both projects would be required to incorporate water conservation features, thus providing for more efficient use of water resources consistent with City requirements for avoiding significant impacts. Therefore, impacts of the Medical Office/Commercial Alternative on water supply would be greater than those of the proposed Project, and like the proposed Project would be less than significant.

(3) Conclusion and Relationship to Project Objectives

The analysis of the Medical Office/Commercial Alternative demonstrates that these uses tend to increase impacts rather than decrease impacts. Their increased parking demand requires greater excavation and, therefore, greater construction impacts, thereby increasing the levels of the Project's significant (NOx) impacts due to construction. PM_{10} and $PM_{2.5}$ emissions would also notably be increased, possibly but not necessarily exceeding significance levels. The greater amounts of excavation would increase the potential for encountering paleontologic resources. Also, these uses would increase the number of daily trips to the Project site thereby increasing the Project's significant traffic impact on Pico Street. Further, project operations would increase impacts related to water consumption, intersection impacts and related air quality and noise impacts. The Medical Office/Commercial Alternative would provide the same beneficial contribution to the efficient use of the TOD zone for reducing regional vehicle miles, as would the proposed Project.

The Medical Office/Commercial Alternative would mostly meet the objectives of the proposed Project. It would provide a dense transit oriented development in proximity to employment, the Gold Line and other transit opportunities; provide a project that will attract and retain businesses in Pasadena and promote economic diversity and jobs in the City; and enhance the Specific Plan area's prestige as a center for high-quality development. The Medical Office/Commercial Alternative would enhance the appearance of the Project site; redevelop an underutilized site with obsolete and deteriorating buildings with a modern structure of attractive architectural design; and convert the site development into a sustainable model of development. However, the presentation of commercial uses at the ground level and necessity to accommodate some parking on the ground level would not provide an attractive project design with pedestrian friendly public open space/landscaped plaza to the same extent as would the proposed Project.

[1] *The estimate of 32,716 gallons per day is based on the following: Wastewater generation would be 75,000 sq.ft. of medical office uses at a rate of 250 gallons per day/1,000 sq.ft; 20,000 sq.ft. of general retail uses at a rate of 80 gallons per day and 5,000 sq.ft. of sit-down/fast turnover restaurant, or 225,300 gallons per day. Assuming wastewater generation is 75 percent of water demand, this converts to 33,649 gallons per day of water consumption.*

3. Comparison of Alternatives and Identification of the Environmentally Superior Alternative

The State CEQA Guidelines require the identification of an environmentally superior alternative to the proposed Project and, if the environmentally superior alternative is the "No Project Alternative," the identification of an environmentally superior alternative should be from among the remaining alternatives.[2] Selection of an environmentally superior alternative is based on an evaluation of the extent to which the alternatives would reduce or eliminate the significant impacts associated with the Project, and on a comparison of the remaining environmental impacts of each alternative. The relative environmental characteristics of the proposed Project, the No Project Alternative, Reduced Density Alternative, and the Medical Office/Commercial Alternative described in the prior analysis are summarized in Table V-1 on page V-26.

Of the alternatives analyzed in this EIR, the No Project Alternative is considered the environmentally superior alternative, as it would avoid the proposed Project's significant impacts due to construction (i.e. NO_x emissions) and street segment impacts on Pico Street. In addition, the No Project Alternative would avoid the remaining less than significant impacts that would occur under the project. The No Project Alternative, however, would be less beneficial with respect to the AQMP and would meet none of the Project objectives.

As the No Project Alternative is determined to be the environmentally superior alternative, an alternative selection is required. The Medical Office/Commercial Alternative would increase project impacts including the intensity of the Project's significant impacts. In contrast, the Reduced Density Alternative would eliminate the proposed Project's significant unavoidable impact regarding streets segments but would not avoid its significant unavoidable air quality (NOx) impacts due to construction. Beyond this, the Reduced Density Alternative would generally, marginally reduce the proposed Project's non-significant impacts. Therefore, the Reduced Density Alternative is the environmentally superior alternative amongst the alternatives analyzed.

At the same time, the Reduced Density Alternative would not provide the same beneficial contribution to the efficient use of the TOD zone for reducing regional vehicle miles; and would not fully meet the project objectives. It would not meet the component of the objectives seeking a project consistent with permitted density: it would not so fully meet objectives pertaining to provision of a transit-oriented urban office project in proximity to employment, the Gold Line and other transit opportunities; provision of a project that will attract and retain businesses in Pasadena and promote economic diversity and jobs in the City; and enhancement of the Specific Plan area's prestige as a center for high-quality development.

[2] *CEQA Guidelines, Section 15126.6(e)(2).*

Table V-1

Comparison of Alternatives and Proposed Project

Environmental Issue Area	Project Impact	Alternative 1 No Project Alternative	Alternative 2 Reduced Density Alternative	Alternative 3 Medical Office/Commercial Alternative
Air Quality				
• Construction	Significant With Mitigation	Less (No Impact)	Less (Significant With Mitigation)	Greater (Significant With Mitigation)
• Operation	Less than Significant	Less (No Impact)	Less (Less than Significant)	Greater (Less than Significant)
Cultural Resources				
• Historic Resources	Less than Significant With Mitigation	Less (No Impact)	Similar (Less than Significant with Mitigation)	Similar (Less than Significant with Mitigation)
Paleontological and Archaeological				
• Paleontological Resources	Less than Significant With Mitigation	Less (No Impact)	Less (Less than Significant With Mitigation)	Greater (Less than Significant With Mitigation)
• Archaeological Resources	Less than Significant With Mitigation	Less (No Impact)	Less (Less than Significant With Mitigation)	Similar (Less than Significant With Mitigation)
Noise				
• Construction	Less than Significant With Mitigation	Less (No Impact)	Less (Less than Significant With Mitigation)	Greater (Less than Significant With Mitigation)
• Operation	Less than Significant	Less (No Impact)	Less (Less than Significant)	Greater (Less than Significant)
Traffic				
• Construction	Less than Significant With Mitigation	Less (No Impact)	Less (Less than Significant With Mitigation)	Greater (Less than Significant With Mitigation)
• Operation	Significant With Mitigation	Less (No Impact)	Less (Less than Significant)	Greater (Significant with Mitigation)
• Access	Less than Significant	Less (No Impact)	Less (Less than Significant)	Greater (Less than Significant)

Table V-1 (Continued)

Comparison of Alternatives and Proposed Project

Environmental Issue Area	Project Impact	Alternative 1 No Project Alternative	Alternative 2 Reduced Density Alternative	Alternative 3 Medical Office/Commercial Alternative
Hazards				
• Construction	Less than Significant With Mitigation	Less (No Impact)	Similar (Less than Significant With Mitigation)	Similar (Less than Significant With Mitigation)
• Operation	Less than Significant With Mitigation	Less (No Impact)	Similar (Less than Significant)	Greater (Less than Significant)
Water Supply	Less than Significant With Mitigation	Less (No Impact)	Less (Less than Significant With Mitigation)	Greater (Less than Significant With Mitigation)

Source: PCR Services Corporation, 2009.

VI. Other Environmental Considerations

VI. OTHER ENVIRONMENTAL CONSIDERATIONS

A. SIGNIFICANT IRREVERSIBLE CHANGES

According to Section 15126.2(c) of the CEQA Guidelines, an EIR is required to evaluate significant irreversible environmental changes that would be caused by implementation of the proposed Project. As stated in CEQA Guidelines Section 15126.2(c):

> *"[u]ses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified."*

The proposed Project would necessarily consume limited, slowly renewable and non-renewable resources. This consumption would occur during the construction phase of the proposed Project and would continue throughout its operational lifetime. Project development would require a commitment of resources that would include: (1) building materials, (2) fuel and operational materials/resources, and (3) the transportation of goods and people to and from the project site. Construction would require the use and consumption of non-replenishable or non-renewable resources, such as: certain types of lumber and other forest products, raw materials in steel, metals such as copper and lead, aggregate materials such as sand and stone used in concrete and asphalt, petrochemical construction materials such as plastics, and water. Construction vehicles and equipment, and the transportation of goods and people to and from the project site would also use nonrenewable fossil fuels such as gasoline and oil.

Project operation would require use of nonrenewable resources similar to existing uses on the site and other developed areas within the City of Pasadena. These include energy resources such as electricity, petroleum-based fuels, fossil fuels, and water. Energy resources would be used for heating and cooling buildings, transportation within the project site, and building lighting. Fossil fuels are the primary energy source for Project construction and operation. This existing, finite energy source would thus be incrementally reduced. Under Title 24, Part 6 of the California Code of Regulation, conservation practices limiting the amount of energy consumed by the proposed Project is required during operation. In addition, Leadership in Energy and Environmental Design (LEED) standards would be incorporated into the Project that would

reduce greenhouse gas emissions while also reducing energy and water usage through building efficiency measures and reductions in vehicle trips. Despite conservation practices and guidelines in energy conservation, commitment to the use of the nonrenewable resources would be long-term.

Limited use of potentially hazardous materials such as typical cleaning agents and pesticides for landscaping would be used and contained on-site. These hazardous materials would be used, handled, stored, and disposed of in accordance with manufacturer's instructions and applicable government regulations and standards. Compliance with these regulations and standards would serve to protect against significant and irreversible environmental change resulting from the accidental release of hazardous materials. In addition, demolition activities would comply with regulatory requirements to ensure that asbestos and lead-based paints are not released into the environment. Compliance with such regulations would serve to protect against a significant and irreversible environmental change resulting from the accidental release of hazardous materials. Similarly, mitigation has been included to address any hazardous materials discovered during construction.

Project construction and operation would be committed to the use of slowly renewable and nonrenewable resources and would limit the availability of these resources and the proposed Project's building site for future generations or for other uses during the life of the proposed Project. However, the continued use of such resources would be on a relatively small scale and consistent with regional and local urban design and development goals for the area. As a result, the nonrenewable resources would not result in significant irreversible changes to the environment.

B. GROWTH-INDUCING IMPACTS

Section 15126.2(d) of the CEQA Guidelines requires that an EIR analyze growth-inducing impacts of a project. Growth-inducing impacts are characteristics of a project that could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the area surrounding a project site. Impacts associated with the removal of obstacles to growth as well as the development of facilities that encourage and facilitate growth are considered to be growth-inducing. However, as stated in the CEQA Guidelines, it is not to be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

The proposed Project would replace existing uses on the project site and would constitute infill development within a highly urbanized area. As such, the proposed Project would have limited growth inducing effects. The proposed Project would not involve any extension of

infrastructure, such as roads or utilities. Consequently, it would not open up undeveloped areas to new development.

As the project site is located within the South Fair Oaks Specific Plan (Specific Plan), implementation of the proposed Project would be consistent with the land use objectives for the area to accommodate technology-based industries, particularly within the biomedical field. Adopted in April 1998, the Specific Plan would facilitate the transition from the area's history of traditional or earlier industrial uses to biotech development due to the proximity of such institutions as the adjacent Huntington Memorial Hospital and the nearby California Institute of Technology (Caltech). Under the Specific Plan, a total of 1,550,000 square feet of non-residential square footage has been projected for Plan buildout. As a proposed office building, the proposed Project is a permitted land use within the Specific Plan area and would not exceed these buildout projections for the Specific Plan area.

The proposed project would not involve the construction of housing in the area. As an infill development within an urban area, the proposed project would involve the build out of a site in conformance to the City's existing land use and zoning regulations. The proposed Project would result in 113,200 gross square feet of office floor area, with an increase of approximately 355 employees.[1] While this increase in employment may bring new residents into the area, the increase in population and the potential need for housing and associated services is not considered significant. A number of these employees are likely to already reside in the general area or within a reasonable commuting distance. To the extent that some employees may choose to relocate in the City or nearby, this demand is not expected to be substantial and could be served by existing available housing and rental opportunities as well as other housing that is planned or under construction in the area. As a result, with existing vacancies and housing already proposed for development, it is not expected the increase in employees that do not already reside in the area would induce substantial growth in the form of new housing and infrastructure.

Although the proposed Project would not foster population growth, it could result in economic growth in the surrounding area as it would contribute to the overall economic success of the City and Specific Plan area. The Project would expand the City's commercial base as well as improve the City's tax base, which would be a beneficial impact.

[1] *In the Employment Density Report prepared by the Natelson Company, Inc., an economic consulting firm, employment generation factors were derived from SCAG employment database and from Floor Area Ratio (FAR) figures obtained from Assessor's Parcel records. As a result, these employment generation factors were established fro ten different land use categories within the Los Angeles region. To determine the number of employees for the proposed project conditions, the land use categories of "Low-Rise Office" were used to assess the future project condition. Based on the employee generation factor for "Low-Rise Office" (3.13 employees/1000 s.f.), a total of 355 employees were projected for the project (3.13 employees/1000 s.f. x 113,200 s.f.= 355 employees).*

The proposed Project would be located in an urban area, well-served by existing infrastructure. No new water, sewer, or drainage infrastructure would be needed and no new roads would be required. Because the proposed Project constitutes infill development within an urbanized area and does not require the extension of new infrastructure through undeveloped areas, project implementation would not remove an obstacle to growth.

C. EFFECTS FOUND NOT TO BE SIGNIFICANT

Section 15128 of the CEQA Guidelines states that an EIR shall contain a brief statement indicating reasons that various possible significant effects of a project were determined not to be significant and not discussed in detail in the Draft EIR. An Initial Study was prepared for the proposed Project and is included in Appendix A of this Draft EIR. The Initial Study provides a detailed discussion of the potential environmental impact areas and the reasons that each topical area is or is not analyzed further in the Draft EIR. As further described in the Initial Study, the proposed Project was determined not to have the potential to cause significant impacts in regards to aesthetics, agricultural resources, biological resources, energy, geology and soils, hydrology and water quality, land use and planning, mineral resources, population and housing, public services, recreation, utilities including wastewater and solid waste.

D. SIGNIFICANT UNAVOIDABLE IMPACTS

Section 15126.2(b) of the CEQA Guidelines requires an EIR to describe significant environmental impacts that cannot be avoided and impacts that can be mitigated but not reduced to a less than significant level. The following is a summary of impacts associated with the 16 E. California Project that were concluded to be significant and unavoidable. The following impacts are described in detail in Section IV, Environmental Impact Analysis of this ~~Draft~~ EIR.

Air Quality: As analyzed in Section IV.A, Air Quality, even with the incorporation of all feasible mitigation measures, during construction, the Project would remain in exceedance of the SCAQMD regional significance thresholds of NOx during Phase 2 (mass site grading). Therefore, regional construction emissions resulting from the Project would result in a significant short-term impact. Implementation of the prescribed mitigation measures would reduce construction NOx emissions. However, even with implementation of mitigation measures, construction emissions would exceed the SCAQMD regional significance thresholds for NOx during the Phase 2 (mass site grading) construction period. As such, regional construction NOx emissions would result in a significant and unavoidable impact.

Please refer to Section IV.A, Air Quality, of this ~~Draft~~ EIR for further discussion of this topic.

Traffic: As analyzed in Section IV.D, Traffic, the Project would increase daily traffic on Pico Street between Raymond Avenue and Edmondson Alley by 8.2 percent. Although daily traffic volumes on the street would remain modest under the 2010 With Project condition, and the adjacent intersection at Raymond Avenue is projected to operate smoothly at LOS A during both peak hours, the estimated 8.2 percent increase in daily traffic on Pico Street would be a significant impact requiring mitigation based on the City's street segment significance threshold. However, Pasadena DOT has determined that there are no feasible physical mitigation measures to reduce the segment impact on Pico Street to below levels of significance. Physical mitigation measures such as capacity enhancement would not change the outcome of estimated increase in traffic. Furthermore, physical prohibition of project trips from the alley to Pico Street would have a detrimental impact on traffic circulation of the adjacent streets. Pico Street is a discontinuous local street between Fair Oaks Avenue and the Gold Line tracks to the east. The current traffic volumes on Pico Street are insignificant and expected to increase moderately in the future. Although mitigation is provided for a contribution to the citywide traffic monitoring program to purchase and install two traffic monitoring stations on Pico Street, the proposed mitigation measure would not fully mitigate the impact along Pico Street and, as such, the impact would be significant and unavoidable.

E. REASONS WHY THE PROJECT IS BEING PROPOSED, NOTWITHSTANDING SIGNIFICANT UNAVOIDABLE IMPACTS

Section 15126.2(b) also requires a description of the reasons why the Project is being proposed, notwithstanding significant unavoidable impacts associated with the Project. The reasons why this Project has been proposed are grounded in a comprehensive listing of Project objectives included in Section II, Project Description, of this ~~Draft~~ EIR. The underlying purpose of the proposed Project is to enhance the future economic growth and vitality of the Specific Plan area through the development of an urban office building that would encourage growth in new technology-based industries. Furthermore, the Project would redevelop an underutilized site containing several deteriorating, single-story structures with a modern mid-rise office building. To increase walkability and transit opportunities, the contemporary building design would incorporate pedestrian friendly and community enhancing features such as a landscaped plaza at the intersection of California Boulevard and Fair Oaks Avenue and parkway improvements along the Project's street frontage.

The proposed Project would provide employment opportunities for those who live in the community. The Project site is located near residential communities including recent housing developments within the vicinity. The proposed Project is also located in an area that is within walking distance to both bus and light rail transit (Gold Line) options as an alternative to commuting by automobile. In doing so, the proposed Project would be consistent with the goals of the community in minimizing traffic impacts and air quality impacts, as well as meeting

economic growth and employment needs. Furthermore, due to the Project's strategic site planning and the open building design, ample open space is provided along the parkway and public right-of-way to enhance the walkability of the neighborhood and foster a pedestrian-friendly environment.

Several alternatives to the proposed Project were considered in Section V, Alternatives, of this ~~Draft~~ EIR. Among those alternatives, no feasible alternative was identified that would reduce the significant unavoidable effect associated with the Project's short-term air quality impacts during construction (see Section V, Alternatives, above). In addition, none of the alternatives would achieve the objectives to the extent of the proposed Project. Since the No Project/No Build Alternative would not meet the underlying purpose of the proposed Project, it is not considered a feasible development alternative.

In addition to the environmental reasons why the Project has been proposed as cited above, there are economic and urban planning reasons in support of the proposed development. The proposed Project would transform a historically industrial area and strengthen the Specific Plan's competitive position as a hub for regional commerce and activity by providing a modern office building to facilitate the transition from a traditional manufacturing and industrial economy to an emerging technology-based economy such as biomedical, computer software or digital entertainment and communication industries. Additionally, the proposed Project would generate additional annual sales tax revenues to the City of Pasadena and provide increased employment opportunities, up to approximately 355 jobs.

F. POTENTIAL SECONDARY EFFECTS

Section 15126.4(a)(1)(D) of the CEQA Guidelines requires mitigation measures to be discussed in less detail than the significant effects of the proposed Project if the mitigation measure(s) cause one or more significant effects in addition to those that would be caused by the proposed Project. In accordance with the CEQA Guidelines, proposed Project mitigation measures that could cause potential impacts were evaluated. The following provides a discussion of the potential secondary effects that could occur as a result of implementing Project mitigation measures.

1. Air Quality

Mitigation Measures A-1 through A-5 pertain to construction and include standard measures such as the implementation of a fugitive dust control program, maintaining construction equipment, implementing construction best management practices to reduce exhaust emissions, and other energy saving practices. Implementation of these construction mitigation measures would occur on a temporary basis and would not result in secondary impacts.

2. Cultural Resources

a. Historic Resources

Mitigation Measure B-1 requires that the pole-mounted sign and a wall-mounted sign presently situated at 592 S. Fair Oaks Avenue be documented in large format black-and-white photographs and written narrative in accordance with HABS Level III standards. Mitigation Measure B-2 requires the proper removal and relocation of the pole-mounted sign and the wall-mounted sign to a suitable off-site repository or collection, preferably within Pasadena or within the Los Angeles Metropolitan area to assist the general public and interested parties in understanding the history of neon signage in the Los Angeles region. Implementation of these mitigation measures would assure that information that contributes to the history of the City of Pasadena is retained. Implementation of these mitigation measures would not result in secondary impacts.

b. Archaeological and Paleontological Resources

Mitigation Measures B-3 through B-8 require that a paleontologist monitor excavation activities in the event that resources are discovered, and that such resources be collected and preserved, as appropriate. Mitigation Measures B-9 through B-11 require that an archaeologist and Native American monitor be present during excavation activities. In the event that such resources are discovered during construction activities, such resources should be collected, preserved, and documented, as appropriate. Mitigation Measure B-11 specifically requires that if human remains are encountered unexpectedly during construction excavation and grading activities that no further disturbance occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. Implementation of Mitigation Measures B-3 through B-11 would not result in secondary impacts.

3. Noise

Mitigation Measures C-1 through C-4 address construction-related noise impacts. These mitigation measures require the Project to perform on-site operations during the permissible daily hours for construction, provide effective noise control devices on noise-generating construction equipment, reduce engine idling from construction equipment to the extent feasible, and minimize the use of simultaneous construction equipment. Implementation of these mitigation measures would not result in physical changes that would create secondary impacts.

4. Transportation

Mitigation Measure D-1 relates to increased traffic volumes on Pico Street associated with the proposed Project. The mitigation measure includes an applicant contribution to the citywide traffic monitoring program to monitor and manage traffic along this roadway segment. Implementation of this mitigation measure would reduce traffic impacts to less than significant, and no secondary impacts would result from their implementation.

5. Hazards and Hazardous Materials

Mitigation Measure E-1 requires the Project Applicant to conduct an asbestos survey in accordance with SCAQMD Rule 1403 prior to demolition activities on the project site, subject to review and approval by the City's Building and Safety Division. Mitigation Measure E-2 requires the Project Applicant to submit verification to the City of Pasadena Building and Safety Division that a lead-based paint survey has been conducted for all existing buildings located on the project site. Mitigation Measure E-3 requires the Project Applicant to ensure that prior to initiating grading on the site all contractors are aware of the potential for discovery of underground storage tanks (USTs), as well as former above ground storage tanks, or remnants thereof, in the subsurface. In the event USTs or former above ground storage tanks are encountered, work in the immediate area shall be halted and the Pasadena Fire Department shall be contacted to ensure that proper procedures are established and followed for their removal. Mitigation Measure E-4 requires the Project Applicant and the responsible parties to develop a management plan for the handling and disposal of contaminated soil and/or groundwater that may be encountered during excavation of the proposed Project for review and approval by the City of Pasadena Building and Safety Division.

These measures have been designed to ensure that no significant impacts would occur during grading and construction activities, as well as during project operation. Implementation of these mitigation measures would not result in secondary impacts.

6 Water Supply

Implementation of Mitigation Measure F-1 would result in a 20 percent reduction of water usage over normal baseline usage through installation of water-efficient fixtures as part of the project building performance. Implementation of Mitigation Measure F-2 would conserve water usage by the Project by incorporating landscape plans that require less water and irrigation systems that are more efficient. These measures would not result in direct physical changes to the environment, and, as such, its implementation would not cause potential secondary effects on the environment.

VII. Comments and Responses

VII. COMMENTS AND RESPONSES

This section provides the comment letters received on the Draft EIR and the City's responses. The presentation of the comments and responses, which starts on the following page, is organized in the following manner. The comment letter is presented first followed by the responses to the comments included in the letter. Each letter is broken into one or more comments and assigned a reference number, which consists of the identifier for the letter and the number of the comment within that letter. For example, the first comment in Letter 1 is numbered 1-1. Commenters on the Draft EIR are provided in Table VII-1 on page VII-2.

Table VII-1

Draft EIR Comments

Letter No.	Comment Letters	I. Summary	II. Project Description	III. Environmental Setting	IV.A. Air Quality	IV.B. Cultural Resources	IV.C. Noise	IV.D. Transportation and Circulation	IV.E. Hazards	IV.F. Water Supply	V. Alternatives	VI. Other Environmental Considerations	Other
Local Agencies													
1	Julianna Delgado, Ph.D., AICP, Chair Jennifer Higginbotham, Vice-Chair City of Pasadena Transportation Advisory Commission (15)							X			X		
2	City of Pasadena Historic Preservation Commission (1)					X							
3	City of Pasadena Planning Commission (20)							X			X	X	X
Individuals/Home Owner Associations													
4	Audrey O'Kelley, President West Pasadena Residents Association							X					X
5	Neil Kleinman, President Madison Heights Neighborhood Association (4)							X					

Letter No. 1

TRANSPORTATION ADVISORY COMMISSION

April 27, 2009

Via E-Mail
Ms. Erin Clark
Associate Planner
City of Pasadena
Department of Planning and Development
100 North Garfield Avenue, Room S116
Pasadena, California 91109

Re: 16 East California Project Draft Environmental Impact Report

Dear Ms. Clark:

At its meeting of April 2, 2009, the Transportation Advisory Commission ("TAC") reviewed the Draft Environmental Impact Report ("Draft EIR") for the 16 East California Project ("the Project"). At the meeting, the Commission also heard comments and concerns from representatives of two neighborhood associations, the Madison Heights Neighborhood Association and the West Pasadena Residents Association. The purpose of this letter is to summarize TAC's comments and recommendations regarding the Draft EIR.

In general, TAC commends the Project for its LEED design features, including attention to increasing and supporting non-motorized mobility. The following elements are particularly noteworthy: the provision of open space that exceeds the minimum required by the South Fair Oaks Specific Plan (5,000 sq. ft. is being provided as opposed to the 300 required); the placement of the proposed plaza at the corner of Fair Oaks and California and other pedestrian-oriented improvements intended to increase walkability in the vicinity; access to parking from Edmonson Alley away from the busy Fair Oaks/California intersection with on-site queuing during peak hours; and on-site amenities provided for bicyclists, such as lockers and showers. However, TAC found the Draft EIR raises the following concerns--especially with respect to Circulation Pattern and Traffic Study Assumptions--that should be addressed more fully in the Final EIR. **1-1**

A. Circulation Pattern

During its discussion, TAC commented on the difficult circulation pattern for this Project, both for motorists finding and entering the parking garage and for pedestrians entering the building, especially for first-time visitors. A clear, wayfinding program for both motorists and pedestrians is needed. Signs are especially needed to prevent increased vehicular travel time and more congestion in the already traffic-congested Fair Oaks/California corridor as motorists look for the parking entrance. Special attention should be given to vehicles traveling westbound along California and southbound along Fair Oaks. Signs should also be designed to facilitate on-site, pedestrian access, especially from the parking garage to the building entrance. **1-2**

To improve traffic circulation in the vicinity, TAC also suggested that a revised Project and Final EIR study the possibility of Edmonson Alley becoming a one-way (northbound direction) street. **1-3**

In addition, TAC questioned whether a pedestrian path from the Gold Line Station to the Project had been analyzed and considered and, if not, suggested the need for further review as part of the Project's circulation pattern. **1-4**

B. Traffic Study Assumptions and Mitigations

TAC raised a number of questions related to the underlying assumptions in the Traffic Study for the Project. The Study shows an increase in 1,200 new weekday daily vehicle trips but no significant impact on traffic conditions, especially at the California and Fair Oaks intersection, which seems counterintuitive. The following questions need further explanation and discussion in the Final EIR. **1-5**

1. Is the assumed, 1.5% annual growth rate in traffic realistic? How was this assumption derived and how has it been tested since adoption of the City's guidelines? If the 1.5% assumption is not applied, what would be the intersection impacts?
2. How were the trip generation credits for the Project calculated and assigned? The Draft EIR shows a reduction in daily trips by allowing for a 10% TDM credit and additional ones for "previous land use," e.g. restaurant/retail? What would the outcome be if these credits were not assigned and/or the actual uses were less intensive (resulting in excess parking spaces)? **1-6**
3. The only mitigation measure discussed in the Draft EIR is contribution to the citywide traffic monitoring program. How will the Project meet the requirements of the Trip Reduction Ordinance? **1-7**
4. The Project should be conditioned to require a TDM plan with annual monitoring. Why was this not included in the Draft EIR?

5. The Project calls for a two-foot street widening along California and Fair Oaks to "appropriately widen" the roadways. This criterion is unclear. What is meant by "appropriately widen?" Would the dedication be incidental and adjacent to the building and/or consist of widening of the ally, or is street widening envisioned along a segment beyond the Project borders? What are the pros and cons of widening or not widening? **1-8**
6. Some segments of California are 'de-emphasized' under the General Plan. Why were these segments not considered in the Traffic Study? What would be the outcome should these segments be included? **1-9**
7. How has the Traffic Study accounted for an increase in traffic on all deemphasized streets in the Project vicinity?
8. Why was the Raymond/California intersection rated at a level of service ("LOS") 'A' when frequent backups and traffic delays result from the Gold Line crossing? **1-10**
9. Has the City established any goals for LOS? Is LOS 'E,' which is forecast to occur at the Pasadena and California intersection, acceptable?
10. How does the Traffic Study account for the projected growth in Gold Line usage? **1-11**

C. Reduced Density Alternative

With respect to the Reduced Density Alternative, TAC felt it was difficult to understand from the Draft EIR why a 16% reduction in density was selected (as opposed to 20% or other round number). Upon close review, it seems that a 16% reduction was selected because at that density, the potential impacts do not exceed the City's 4.8% threshold and thus, can be determined to be "less than significant." The Final EIR should clearly state the reasoning for the selection of the 16% reduction. In addition, the Final EIR should analyze 25% and 50% reduced-density alternatives. **1-12**

D. Additional General Concerns

The Commission's review of the Draft EIR brought to light issues that need to be raised, and may be addressed during the City's revision of its Mobility Element. TAC noted a potential 'flaw' in the City's criteria, which came to light in the street segment analysis for Pico Street. For the studied Pico segment, a minimal increase in actual traffic results in more than an 8.2% increase, deemed to be a significant and unavoidable impact because the threshold applied is not proportional, e.g. an 8.2% traffic increase on a street with an already significant traffic volume will have greater real impacts, creating greater traffic congestion than the same percentage increase on a street such as Pico with little to no existing traffic, although both will exceed the threshold for significance that can be mitigated. **1-13**

A second issue is the acceptable LOS for City streets, which is also a matter of policy. Should the City assume that it is acceptable for all streets to increase in traffic volume up to and including an LOS of 'F' or should the threshold of 'acceptability' be set lower, at LOS 'C' for example? **1-14**

Finally, as previously recommended by TAC and the Planning Commission, the Department of Transportation should conduct a focused mobility and traffic mitigation study for the Fair Oaks/California corridor.

1-15

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On behalf of our fellow Commissioners, we thank the City for giving TAC the opportunity to review and comment on the Draft EIR. TAC looks forward to reviewing the Final EIR and the responses to its comments.

Respectfully submitted,

JULIANNA DELGADO, PhD, AICP
Chair

JENNIFER HIGGINBOTHAM
Vice-Chair

cc: Mayor and City Council
Planning Commission

JAD:042709

LETTER NO. 1

Julianna Delgado, Ph.D., AICP, Chair
Jennifer Higginbotham, Vice-Chair
City of Pasadena
Transportation Advisory Commission (15)

RESPONSE NO. 1-1

This comment confirms the review of the Draft EIR by the City of Pasadena Transportation Advisory Commission (TAC) and commends the proposed Project for its LEED design features. The comment does not introduce new environmental information specific to the proposed Project. The comment is acknowledged and will be forwarded to the decisionmakers for review and consideration.

RESPONSE NO. 1-2

Comment noted. The Applicant will develop a guide sign program to direct motorists and pedestrians into and away from the building.

RESPONSE NO. 1-3

An EIR must describe a range of reasonable alternatives to the project that could achieve most of the basic project objectives while reducing the project's potentially significant environmental effects. Edmondson Alley as a one-way alley, however, would not further reduce the traffic impact on Pico Street between Edmondson Alley and Raymond Avenue to below levels of significance. Alternatively, there may be potential secondary significant environmental impacts associated with conversion of streets/alleys to one way operations.

Perhaps the greatest disadvantage of a one-way northbound Edmondson Alley would involve exiting traffic. Under one-way northbound operation, 100 percent of the exiting traffic would be forced to turn left out of the garage and then right onto eastbound California Boulevard. This forces all of the project's exiting traffic through the intersection of California/Raymond where 38 percent of the project traffic would have to make a left turn and another 38 percent would turn right. These high turning movements would potentially lead to a significant impact at the intersection of California Boulevard and Raymond Avenue.

Alleys are designed to provide access, accommodate vehicle loading and unloading, and alleviate traffic along major arterials. Full access to the project site through the alley will reduce congestion associated with the project at the intersection of California Boulevard and Fair Oaks Avenue. Access through the alley also takes slow moving entrance and exit traffic off of California

Boulevard and Fair Oaks Avenue, thus reducing traffic and pedestrian conflicts and associated safety concerns on these streets. The proposed two-way operation of the Edmondson Alley spreads project traffic out, increases its approach and departure flexibility, increases safety, and reduces its impacts on the overall system. A one-way alley alternative would create additional potentially significant impacts over the proposed Project, and was therefore rejected from further consideration during the analysis of the project.

RESPONSE NO. 1-4

Pedestrians between the project site and the Fillmore Gold Line Station have access to sidewalks along Raymond Ave, California Boulevard, Fair Oaks Avenue, Pico Street, and Fillmore Street. In addition, traffic signals exist at Raymond/Pico and at Raymond/California so pedestrians have the choice of a route with full sidewalks along Raymond and their choice of a protected, signalized crosswalk to cross Raymond at either Pico or California.

The pedestrian connection between the site and the Gold Line station was evaluated and found to be sufficient to support current and encourage future transit ridership.

RESPONSE NO. 1-5

A conservative rate of 1.5 percent growth per year, as prescribed in the City's guidelines, is applied to the baseline traffic counts. The analysis utilized the established thresholds for intersection analysis as outlined in the City's *Transportation Impact Review Current Practice and Guidelines*. The 1.5 percent rate also takes into account the growth factors shown in the *2004 Congestion Management Program for Los Angeles County*, which anticipates that the regional growth for the San Gabriel Valley area will increase by less than one percent per year between the years 2005 and 2025.

This 1.5 percent annual growth rate represents a conservative calculation in that the total traffic growth rate in the City and in and near the Central District average slightly over one percent per year – but this growth rate includes BOTH ambient growth and related projects. This ambient growth rate is intended to account for smaller projects contributing to other traffic growth around the study area that are not detailed in the related projects list.

RESPONSE NO. 1-6

The project trip generation (summarized in Table 5 of the Traffic Study – refer to Appendix E) is based on trip generation rates found in the *Trip Generation, 7th Edition* publication by the Institute of Transportation Engineers (ITE), and actual driveway counts. The ITE Trip Generation Handbook is used by all jurisdictions in Los Angeles County and is the national standard for trip generation.

The net project trip impacts were determined in the traffic study by crediting the trips generated from the existing land uses on-site. The existing land uses on-site are two restaurants (Monty's steakhouse and Grandview Palace), a massage establishment (Body Healing Center), and an auto repair center (M&G Auto Body). Calculation of this credit was determined based on rates established in the *Trip Generation, 7th Edition* publication, as well through actual driveway counts conducted in 2008. Two sets of traffic counts were taken to determine the potential impact of the project. The first set concentrated on recording the morning and afternoon peak hour turning movements at all nine of the study intersections. When these counts were taken, all of the land uses on the project site were active and in operation. Therefore, trips from all of the previously-active land uses on the site were indeed included in the base intersection traffic counts collected for the traffic analysis.

The second set of counts, the driveway counts, focused on developing the most accurate set of net trip generation possible for the proposed project. These counts were conducted at the request of DOT but, unfortunately, the Monty's restaurant was inactive by this time, and therefore the ITE Trip Generation rate was used to estimate the number of trips that was generated by the restaurant and included in the intersection counts. The other commercial uses on-site were still in full operation. The driveway survey reflects the most accurate on-site trip credit of all the active uses, particularly as the massage establishment is an undefined use in the trip generation manual. Given the fact that Monty's was operational at the time the existing intersection counts were taken, the proposed project was given trip credits for the removal of Monty's from the site.

If existing land uses are not considered, and the land uses are in effect at the time the City begins its CEQA process, the project impact analysis would not be consistent with CEQA's requirement that the impacts of the project should be compared to "on the ground" existing conditions and entitled uses. If this and the other credits were not taken, the impact of the 16 E. California project on traffic would be overstated because the gross project trips would be added to background intersection traffic conditions that already contained traffic generated on-site that would be eliminated with the new development.

In addition, credit was given for pass-by trips and for required trip reduction strategies. Pass-by trips are those that are already on the street network and therefore do not represent new trips added to the system. In this case, the pass-by trips are subtracted from the trip credit so they represent a reduction in the trip credit taken against the new project trips. The project is subject to the City's Trip Reduction Ordinance requiring TDM measures. Given the proximity of the project to the Gold Line station and its location within the transit oriented development (TOD) area, a 10 percent credit for TDM is reasonable and is standard in City analyses. As stated in the City's Trip Reduction Ordinance No. 7157, for projects exceeding 25,000 square feet of gross floor area, "a minimum of 10 percent of the employee parking spaces shall be for, and designate as, preferential parking for carpool and vanpool vehicles." Furthermore, the 10 percent trip reduction assumption for office trips is certainly conservative given the Central District location of the site, the transit

service available to the site, and the project requirements to comply with the City's Traffic Reduction Strategies.

The question of "what would be the outcome if these credits were not assigned" does not satisfy CEQA's analytical requirements nor help determine the project's traffic impacts because it double counts the effects of trips to/from the project site. Further, such an analysis could lead to an overstatement of the mitigation level required of the project, and could violate CEQA's "nexus" and "rough proportionality" requirements for mitigation measures.

The comment also asks how the trip generation or the trip credits relate to the on-site parking supply – i.e., would an overestimation of credits result in excess parking supply. The trip generation estimate is not based on Zoning Code parking requirements but, rather, based on the size of the proposed buildings and the land uses intended to occupy those buildings. Thus, the trip generation analysis assumes that an adequate parking supply will be provided; and, consistent with that assumption, the proposed project meets the City code for parking and thus has been determined to provide an adequate supply of parking to meet the demands of the project.

RESPONSE NO. 1-7

The last five bullet points on page IV.D-12 of this Final EIR list project features/practices that would serve to implement Transportation Demand Management (TDM) practices. In addition, on page IV.D-13 of this Final EIR it states that a trip credit is taken for a TDM program, which is a City requirement that applies to the proposed Project. The text of the Draft EIR has been revised to clarify that the proposed Project would implement a TDM Plan that would be consistent with the applicable requirements of Section 10.64.020, Transportation Demand Management Program Plan, of the City of Pasadena Municipal Code. This section of the Municipal Code requires that TDM Program Plans be reviewed and approved by the Director of Transportation prior to the issuance of a building permit and, thereafter, be reviewed and approved annually.

RESPONSE NO. 1-8

As indicated on page II-15 in this Final EIR, the proposed Project would provide a two-foot dedication along California Boulevard, a two-foot dedication along Fair Oaks Avenue, and a four-foot dedication along Edmondson Alley. These are all property dedications and will be taken from the private property and not from the public sidewalk or roadway.

As indicated on pages IV.D-10 and IV.D-11 of this Final EIR, the four-foot widening of Edmondson Alley along the project property line is intended to help accommodate additional traffic associated with the proposed Project. The two-foot dedication along Fair Oaks Avenue is intended to increase the width of the sidewalk adjacent to the proposed project from 10 feet to 12 feet, which is the preferred width for the area and is anticipated per the South Fair Oaks Specific Plan to

accommodate substantial pedestrian movements. The two-foot dedication along California Boulevard is intended to widen each eastbound travel lane by one foot because the current lane widths are substandard.

RESPONSE NO. 1-9

Section 4.1.3.1 of the Mobility Element of the General Plan states:

> *"The Council established, as City policy, that traffic growth would be limited on selected streets in order to protect residential neighborhoods. Traffic management initiatives are underway to direct the increase in traffic to multimodal corridors and to enforce traffic restrictions on streets. No capital or operational transportation improvements to increase traffic will be made on the de-emphasized streets." In addition,* Policy 3.11 of the Mobility Element *states: "Recognize designated de-emphasized streets as routes where efforts will be made to limit increases in travel. Measures that would increase traffic in these streets will not be planned or implemented".*

The segments selected for analysis for this EIR are those that could be directly and significantly impacted by project trips.

DOT reviews the proposed directional distribution of project traffic and determines those streets where sufficient project traffic might be assigned to result in a significant segment impact. As shown in Table 7 of the traffic study, the project increases daily trips on the street segments of California Boulevard, Fair Oaks Avenue, and Raymond Avenue by less than 1 percent of the daily traffic level. As one moves farther away from the project, project traffic can be expected to dissipate and the impact on daily traffic levels will likewise diminish. Thus, no additional segments impacts would be expected to occur. Studying more segments would not increase the validity of the analysis. The analysis as presented captures all of the potential significant segment impacts created by project traffic.

The City's segment impact criteria are not dependent on the functional classification of the roadway, nor is any special consideration given to additional project traffic added to principal Mobility Corridors or deemphasized Streets. If a project adds traffic demand equivalent to more than 2.5 percent of the average daily traffic on any street, the need for mitigation is triggered. In this case, the project would trigger that condition at one segment.

The segments of California Boulevard classified as de-emphasized are located east of Lake Avenue and west of Pasadena Avenue. The majority of vehicular travel to and from the proposed office development is expected to utilize the surrounding street network close to the 210 freeway or

the 110 freeway. A significant percentage of project-related trips traveling on the de-emphasized segments of California Boulevard is not expected.

Analyses of larger areas are beyond the scope of this project and are addressed as a part of the City's General Plan Update**.**

RESPONSE NO. 1-10

The Level of Service (LOS) calculations are based on the City's *Transportation Impact Review Current Practice and Guidelines* as well as peak hour turning movement counts conducted at the intersection. As stated on page IV.D-4 of this Final EIR, the acceptable level of service for intersections within the City is LOS D or better. An "acceptable" LOS does not imply that conditions experienced by drivers are satisfactory at all times.

In the case of the Raymond/California intersection, the traffic volumes during the morning peak hour are relatively light on Raymond Avenue itself and, more importantly from a capacity calculation standpoint, the left turns from all four approaches are very light (only 16 left turns per hour each from the north and south legs and only 50-80 left turns from the east west legs). The low number of left turns leaves more green time available to accommodate the heavier east-west through traffic on California Boulevard. The result of the capacity calculation is that only 36 percent of the intersection's capacity is utilized in the morning peak hour, resulting in LOS A operations.

In the afternoon peak hour, the left turn movements increase to the 50-115 level and both the east-west through traffic and the north-south through traffic increase slightly over the morning peak hour levels. In the afternoon peak hour, the volumes would utilize approximately 50 percent of the intersection's capacity – still operating at LOS A, but close to the LOS B boundary.

The intersection LOS measures the anticipated performance of the intersection over the course of an entire hour. Even the indication of a LOS A operation does not mean that there might not be an occasional backup during a few signal cycles over the course of an hour.

Please refer to Response No. 1-11 below for further information regarding traffic congestion associated with the Gold Line.

RESPONSE NO. 1-11

To assess potential impacts of the Gold Line, additional analyses were conducted for the following three intersections:

– Fair Oaks Avenue and California Boulevard.

- Raymond Avenue and California Boulevard.
- Arroyo Parkway and California Boulevard.

Based on the Gold Line's timetable, which has 16 trains per hour in the peak periods, it was estimated that the capacity of the intersections would be affected by approximately 20 percent. This was based on a vehicle clearance and gate down time of an average 45-50 seconds. This is typically more conservative than industry standards, which range from 39-50 seconds. Even though intersection operation degrades with the influence of the Gold Line, there are no additional cumulatively significant impacts associated with the traffic generated by the project, and thus no cumulative impact mitigation measures are required. Any increased traffic impacts with increased operations of the Gold Line must be addressed and mitigated by the operator of the Gold Line, and not by the applicant for this project.

For detailed analysis of the effects of increased patronage on the Gold Line, please refer to the Metro Gold Line Environmental Impact Report.

RESPONSE NO. 1-12

The commenter is correct that the Reduced Density Alternative was selected to avoid the proposed Project's one significant and unavoidable traffic impact. Further analysis of the project trips indicates that, at a 16 percent reduction of the project size, the potential traffic impacts along Pico Street would not exceed the City's 4.9 percent threshold for physical mitigation for roadway segments. Additional reduction of the project size beyond 16 percent would further reduce the project segment impact on Pico Street to below levels of significance.

CEQA is an environmental disclosure and analysis law, designed to make decisionmakers and the public aware of the potentially significant environmental effects of a proposed project, feasible mitigation measures, and alternatives to a project that would reduce the identified potentially significant environmental effects of the proposed project. With regard to alternatives, CEQA is not meant to be the place where the analysis of the merits of the land use allowed under the zoning code should take place. Instead, that analysis should take place in the staff report and findings. Consequently, CEQA only requires that an EIR describe a reasonable range of alternatives to the project, or to the location of the project that could feasibly avoid or lessen significant environmental impacts while substantially attaining the basic objectives of the project. As discussed on pages V-1 and V-2 of this Final EIR, the range of alternatives required in an EIR is governed by a "rule of reason"; therefore, the EIR need evaluate only those alternatives necessary to permit a reasoned choice. Furthermore, an EIR need not consider an alternative if its effects cannot be reasonably identified, its implementation is remote or speculative, or if it would not achieve the basic project objectives. In accordance with these provisions, the Reduced Density Alternative would avoid the proposed Project's significant and unavoidable traffic impact, while still achieving the basic project objectives.

The alternatives selected for the Draft EIR represent a reasonable range of alternatives selected based on the key provisions of the CEQA Guidelines mentioned above. Additional reduced density alternatives, such as a 25 percent or 50 percent reduced-density alternative, were not analyzed as they would not avoid any significant environmental impacts of the proposed Project beyond what has already been addressed by the 16 percent reduced density alternative. Consequently, if the City were to want to analyze those additional alternatives for land use planning purposes, it could do so in the staff report, but not in the CEQA document. Furthermore, such alternatives, including reducing the size of the project by half, would not achieve the basic project objectives of the proposed Project to the same extent as the Reduced Density Alternative, and could further undermine the economic feasibility of the project.

RESPONSE NO. 1-13

The methodology for assessing street segment impacts will be re-evaluated in the City's Mobility Element Update.

RESPONSE NO. 1-14

This comment raises a general policy issue and does not introduce new environmental information specific to the proposed Project. The comment is acknowledged and will be forwarded to the appropriate decisionmakers for review and consideration.

RESPONSE NO. 1-15

The circulation and mobility in the area will be studied in the City's Mobility Element Update.

Letter No. 2

Historic Preservation Commission Comments
16 E. California Project—Draft EIR
April 6, 2009

Motion from Historic Preservation Commission, April 6, 2009, Advisory Review of the Draft Environmental Impact Report (DEIR) for the Proposed New Development Project at 16 E. California Boulevard:

Concur with the findings of the Draft Environmental Impact Report (DEIR) that the proposed new development project at 16 E. California would have a less-than-significant effect on cultural resources with the mitigation measures to preserve and relocate the two historic signs, and forward this conclusion to the Zoning Hearing Officer. In addition, the Commission recommended that the vertical (1945) sign be preserved on site (if feasible) and, if it cannot be preserved on site, that it remain in the City and be exhibited rather than stored out of public view. The sense of the Commission is that the scripted-letter wall sign on the Fair Oaks is not a historic resource, and it may be offered to the Museum of Neon Art in downtown Los Angeles or to a similar repository.

2-1

LETTER NO. 2

City of Pasadena
Historic Preservation Commission

RESPONSE NO. 2-1

Mitigation Measure B-2, Sign Relocation, has been revised in accordance with the this comment to preserve the pole-mounted sign on site if feasible, and if not, require that the pole mounted sign be relocated to a suitable site within the City of Pasadena in public view.

Letter No. 3

Planning Commission Comments
16 E. California Project—Draft EIR
April 22, 2009

Traffic Study

TDM:	Address the validity of the 10% TDM credit. What goes into this? From where were credits for particular uses derived?	**3-1**
Circulation:	Will there be signage or some other form of restriction for vehicles attempting to turn left into the ingress-only driveway off of S. Fair Oaks Avenue into the project?	**3-2**
Related Projects:	Were the Sares-Regis and Ambassador West projects taken into account in the traffic study? Figure III-1 shows related projects that are north of the 210 freeway and, seemingly, far away from the project site. Why were these projects selected and included within the traffic study for this project? Are there projects in closer proximity that should be included?	**3-3**
Street Segments:	It appears that all street segments that were studied are below California Blvd. What is the reason for this? Why were others not included? This analysis should include street segments above California Blvd as well. Segments along California Blvd between Pasadena Ave and Fair Oaks Ave should be studied as well. There should be a direct connection between the street segment analysis and those projects included as related projects for the purpose of cumulative impact analyses.	**3-4**
LOS Analysis:	Statements within the DEIR (e.g. Page III-4 and III-5) appear to claim that LOS D is "acceptable". Is this the case? On what basis? LOS D should not be considered an "acceptable" level. LOS determination for the intersection of Fair Oaks Ave and California Blvd, both existing and projected, should be recalculated and reconfirmed. Personal observations of travel through that intersection are that LOS levels are below those calculated in the traffic study.	**3-5**
Parking:	Suggestion made that parking is not adequate and will lead to area traffic and/or parking problems.	**3-6**
Methodology:	Comment regarding Table 5, page 18 of Traffic Study, the driveway count seems wrong and the table should be checked.	**3-7**
	Goldline expansion will increase number of trains moving through area and make conditions at California/Fair Oaks intersection worse. Is this taken into account in the traffic study?	**3-8**
General:	Comment that traffic study is inadequate and should be recirculated.	**3-9**

Land Use

Specific Plan Intent:	The South Fair Oaks Specific Plan provides a vision for an area that serves biomedical and emerging technology uses. Does general office further this vision? If not, is the proposed project consistent with the Specific Plan?	**3-10**
Alternatives:	Why was no alternative for biomedical research considered?	**3-11**
Project Objectives:	Is it an accurate statement that reducing the density of the project would also reduce the effectiveness of promoting transit use (Page V-25, final paragraph)? Please clarify.	**3-12**

Aesthetics **3-13**

Cumulative Impact:	Were cumulative aesthetic impacts analyzed?	
	Is there a potential for a "canyon-effect" on S. Fair Oaks Avenue?	**3-14**

General

Process:	Why do this EIR and consideration of Statement of Overriding Considerations go to the Hearing Officer for approval?	**3-15**
	Will there be additional opportunities to comment on the Final EIR prior to seeking approval?	**3-16**

Planning Commission—*Public Comment*
16 E. California Project—Draft EIR
April 22, 2009

Noticing:	Comment that a residential area within 300 feet was not noticed and that Transportation Advisory Commission meeting times and dates changed.	**3-17**
Traffic:	Suggestion that no project access should be allowed to or from Fair Oaks Avenue or California Boulevard.	**3-18**
Parking:	Comment that applicant stated in a prior public meeting that 400 tenants would be in the building. If so, 255 parking spaces is inadequate.	**3-19**
	Suggestion of area-wide parking impact analysis, as visitors to new developments might seek parking elsewhere on Raymond, etc.	**3-20**

LETTER NO. 3

City of Pasadena
Planning Commission

RESPONSE NO. 3-1

Based on CEQA's guidelines, baseline credits are given to entitled uses on the site. The project will also be subject to the City's TRO requiring TDM measures. Given the proximity of the project to the Fillmore Gold Line station and its location within the transit oriented development (TOD) area, a 10 percent credit for TDM is reasonable. As stated in the City's Trip Reduction Ordinance No. 7157, for projects exceeding 25,000 sf of gross floor area, "a minimum of 10 percent of the employee parking spaces shall be for, and designate as, preferential parking for carpool and vanpool vehicles."

RESPONSE NO. 3-2

Prior to the issuance of the first permit for construction, appropriate measures to restrict left turns into and out of the driveway along Fair Oaks Avenue shall be reviewed and approved by the Department of Transportation. The approved measures shall be installed or constructed before the issuance of the Certificate of Occupancy.

RESPONSE NO. 3-3

The related projects selected for inclusion in the Traffic Study include reasonably anticipated future projects producing related or cumulative impacts. Selected projects in the related projects list are those projects that directly add trips to the proposed projects' study area. In other words, the related projects located north of the 210 freeway were included because their associated project traffic affected the study area included in this EIR.

The potential traffic impacts of the proposed project were re-assessed by inclusion of the Westgate Pasadena (Sares Regis) and the Ambassador College West Campus projects. The results of the analysis did not, however, change the outcome of the previous results. Thus, no changes to the EIR conclusions or additional mitigation measures are required. The aforementioned related projects were analyzed despite the fact that the build-out for the Westgate Pasadena project is year 2015, and the Ambassador College West Campus has not been constructed despite the planned build-out year of 2009. Table VII-2 on page VII-24 summarizes the results of the analyses and the fact that the change in volume to capacity ratios does not exceed the thresholds of significance outlined in the City's *Transportation Impact Review Current Practice and Guidelines.*

Table VII-2

Intersection Level of Service Analysis - Future Conditions (2010)

Intersections	Peak Hour	Existing	Cumulative Base 2010		Cumulative Plus Project 2010			
		LOS	V/C	LOS	V/C	LOS	Change in V/C	Significant Impact
1. St John Ave and California Blvd	A.M.	C	0.721	C	0.728	C	0.007	NO
	P.M.	B	0.657	B	0.657	B	0.000	NO
2. Pasadena Ave and California Blvd	A.M.	C	0.808	D	0.808	D	0.000	NO
	P.M.	E	0.969	E	0.974	E	0.005	NO
3. Fair Oaks Ave and California Blvd	A.M.	B	0.722	C	0.727	C	0.005	NO
	P.M.	C	0.801	D	0.805	D	0.004	NO
4. Raymond Ave and California Blvd	A.M.	A	0.369	A	0.370	A	0.001	NO
	P.M.	A	0.511	A	0.517	A	0.006	NO
5. Arroyo Pkwy and California Blvd	A.M.	B	0.659	B	0.662	B	0.003	NO
	P.M.	C	0.820	D	0.822	D	0.002	NO
6. Fair Oaks Ave and Glenarm St	A.M.	C	0.854	D	0.869	D	0.015	NO
	P.M.	C	0.871	D	0.872	D	0.001	NO
7. Fair Oaks Ave and Congress St	A.M.	A	0.442	A	0.442	A	0.000	NO
	P.M.	A	0.502	A	0.502	A	0.000	NO
8. Fair Oaks Ave and Del Mar Blvd	A.M.	B	0.680	B	0.682	B	0.002	NO
	P.M.	C	0.853	D	0.854	D	0.001	NO
9. Raymond Ave and Pico St	A.M.	A	0.201	A	0.224	A	0.023	NO
	P.M.	A	0.256	A	0.264	A	0.008	NO

Source: Fehr & Peers, June 2009.

Furthermore, it should be noted that assumptions regarding increases in background traffic are conservative as the analysis accounts for both reasonably foreseeable projects in the area as well as a 1.5 percent per year growth factor, as further described in Response No. 1-5. In addition, the assumptions used in the analysis are conservative as the increase in traffic estimated for related

projects in the area does not account for traffic mitigation measures that are likely to be required for a number of the projects.

Also important to note is that while a Predevelopment Plan Review ("PPR") application has been submitted to the City for the Huntington Medical Research Institute (HMRI) project one block south of the proposed 16 E. California project, that project was not analyzed as a related project because it is deemed to be too speculative at this point for inclusion in this CEQA analysis. In the City's experience, projects that are in the PPR stage generally undergo substantial substantive changes as a result of the comments submitted during that review. Also, often the project proposed during PPR does not ripen into a project application, or if an application does come forward after the project has changed in response to the PPR comments, it takes a very long time (upwards of a year or more) to be deemed complete. Accordingly, any cumulative impact analysis that would include projects in the PPR stage would overstate the cumulative traffic scenario without a reasonable basis for doing so.

RESPONSE NO. 3-4

The segments selected for analysis are those that could be directly impacted by project trips. Analyses of larger areas are beyond the scope of this project and are to be addressed as a part of the City's General Plan Update.

RESPONSE NO. 3-5

LOS calculations are based on the City's *Transportation Impact Review Current Practice and Guidelines*. The LOS calculations are based on a snapshot of the conditions at the time the counts were conducted. An acceptable LOS does not imply that conditions experienced by drivers are satisfactory at all times.

RESPONSE NO. 3-6

Parking impacts were analyzed within the Initial Study prepared for the proposed Project which was circulated for public review from October 1 to October 30, 2008 and incorporated into the Draft EIR as Appendix A. As stated in the Initial Study, per Section 17.46.040 - Number of Off-Street Parking Spaces Required, of the Zoning Code, the minimum number of parking spaces for 'Office – Administrative Business Professional' is three spaces for every 1,000 square feet of floor area (parking areas do not count towards this calculation). However, per Section 17.50.340, Transit Oriented Development, in the Zoning Code, because the site is within one-quarter mile of the Fillmore Light-Rail Station, this standard is reduced by 25 percent. Further, the minimum number of parking spaces may only be exceeded through the provision of 'Commercial Off-Street Parking', 'Shared Parking', or 'Joint Parking.' The proposed gross floor area is 113,200 square feet. After the 25 percent reduction, the required number of parking spaces is 255. The project would

provide a maximum of 255 spaces within a subterranean parking garage in accordance with the City's parking requirements.

RESPONSE NO. 3-7

Trip generation credits are given to a project to account for the elimination of existing uses on the site. Furthermore, turning movement counts at the driveways serving the existing land uses on the site are based on actual field data. The results of the counts were reviewed by DOT and approved for use in the traffic study.

Detailed traffic count data are included in Appendix E (Traffic Study) of this Final EIR. The traffic count data has been reviewed again and is accurate and acceptable for use in the study. The driveway counts were conducted between 7-9 AM and 4-6 PM on Wednesday, May 7, 2008 to capture the AM and PM peak periods. These hours are consistent with the periods analyzed in the study. The four locations counted were: the north driveway onto California Boulevard, the west driveway on to Fair Oaks Avenue and the two driveways onto Edmonson Alley. The trip generation credits are the sum of these four counts. Not assigning credits would overestimate the impact of the proposed development to the street network, since the existing land uses' traffic is reflected in the existing traffic counts.

RESPONSE NO. 3-8

Refer to Response No. 1-11 for a discussion of traffic impacts related to Gold Line expansion.

RESPONSE NO. 3-9

The comment does not introduce new environmental information specific to the proposed Project. The comment is acknowledged and will be forwarded to the decisionmakers for review and consideration.

RESPONSE NO. 3-10

While one of the expressed goals of the Specific Plan is to "create an attractive physical environment for businesses which commercialize emerging technology, particularly related to biomedical," another is to more generally "support the retention and enhancement of local business." Furthermore, at the core of the "vision diagram for a community of innovation," which is included on page 5 of the Specific Plan document, "Bio-Tech Industry Core" is described as consisting of the following uses: Bio-medical Multi-tenant and Single-tenant Research & Technical Support Facilities, Incubator Business Facilities, Adaptive Re-use, and General Office Development. As such, the Project's proposed "Office – Administrative Business Professional"

land use is consistent with the permitted land uses within the Specific Plan and more specifically the Bio-Tech Industry Core, which includes General Office Development.

RESPONSE NO. 3-11

As discussed on page V-4 of this Final EIR, alterative site uses, including Medical Office/Commercial Uses, were considered in the selection of alternatives to the proposed Project.

However, CEQA does not require the selection of alternatives to include an evaluation of all potential land uses or occupants for a given site, but rather only a reasonable range of alternatives that would reduce the potentially significant environmental effects of the proposed project and meet most of the basic project objectives. Accordingly, as part of the reasonable range of alternatives selected in the Draft EIR, the Medical Office/Commercial Use Alternative was selected as it represents a reasonable mix of uses that could occur in conformance with applicable plans and regulations if the proposed Project were not to proceed. More specifically, this alternative was chosen to include a medical office use which is representative of the Bio-Tech Industry Core. In addition, the commercial uses would not only help offset the loss of existing on-site commercial uses, but would also complement the on-site medical uses as well as serve the off-site project vicinity.

RESPONSE NO. 3-12

It is an accurate statement to say that reducing the density of the proposed Project would also reduce the effectiveness of promoting transit use. This statement is referring to the density of the proposed Project when compared to the Reduced Density Alternative. The proposed Project would provide greater density and place more jobs on site within a Transit Oriented Development (TOD) area compared to the Reduced Density Alternative. As such, the proposed Project would result in a greater reduction of regional vehicle miles traveled by employees compared to the Reduced Density Alternative as it would have more employees with the opportunity to utilize alternative modes of transportation. As stated in the Pasadena Municipal Code, Section 17.50.340, the City's Transit Oriented Development standards, which apply to the project site, emphasize intensification of development and reduced reliance on motor vehicles. From a planning perspective, greater density in such areas served by transit is preferred over growth that might otherwise occur more remotely from job opportunities with resulting increases in vehicle miles traveled and associated traffic and air emissions. Furthermore, a number of City general plan objectives and policies, including Objective 1 and Policy 10.2, promote higher density development in targeted areas, such as TOD areas, which are located away from Pasadena's residential neighborhoods.

RESPONSE NO. 3-13

Yes. Aesthetic impacts were analyzed within the Initial Study prepared for the proposed Project which was circulated for public review from October 1 to October 30, 2008. The Initial Study concluded that aesthetic impacts for the proposed Project were less than significant. Furthermore, the Initial Study's analysis of cumulative impacts stated that given the currently low visual quality of the site, its redevelopment would have a beneficial aesthetic effect and, therefore, the proposed Project would not incrementally contribute to cumulative aesthetic impacts and no significant cumulative aesthetic impacts would occur. The Initial Study is included in Appendix A of this Final EIR.

RESPONSE NO. 3-14

As indicated on page 34 in the Initial Study, Appendix A of this Final EIR, the project would be consistent with the land use regulations and development standards set forth in the City's Municipal Code, including the zoning code which specifies a maximum allowable building height of 45-feet. In addition, on page 7 of the Initial Study it is indicated that the project would be compatible with surrounding development, which includes one to five story buildings, in terms of building height and massing. Furthermore, as stated on page II-13 of this Final EIR, the proposed Project's slip-H design and building features provide for building articulations, enhancement of open space and vistas for pedestrians and drivers, and massing efficiencies, by breaking up massing and maximizing open space. In addition, as shown in Figure II-7, on page II-12 of this Final EIR, the project provides trees and landscaping that are concentrated along Fair Oaks Avenue and California Boulevard, further breaking up the visual mass of the building. Given that the height and density of the project are compatible with surrounding development, and in conformance with land use and zoning designations, and aspects of the project design break up the visual mass of the structure, no significant canyon effects are anticipated.

RESPONSE NO. 3-15

According to the California Environmental Quality Act (CEQA) Guidelines, Environmental Determinations must be approved with the first discretionary approval for a project. Based on the scope of the proposed Project, and in accordance with the City of Pasadena Zoning Code, the discretionary approvals required for this Project are two Minor Conditional Use Permits (MCUPs). MCUPs are heard by the Hearing Officer (PMC 17.61.050). Therefore, the EIR and Statement of Overriding Considerations will also be heard before the Hearing Officer in connection with the MCUPs. Altering this process for this or any other project proposal would require an amendment of the Zoning Code.

RESPONSE NO. 3-16

A public hearing to review and consider approval of the EIR will be held before the Hearing Officer. Written comments on the EIR may be mailed or delivered to the Hearing Officer at the City's Permit Center (175 N. Garfield Avenue) during the two week period prior to the public hearing. In addition, oral comments will be received at the public hearing.

The proposed Final EIR can be reviewed at the Permit Center by appointment only, or on the City's environmental notices web page at:
www.cityofpasadena.net/environmental/Environmental_Home.asp

RESPONSE NO. 3-17

The Draft EIR was circulated for public review for a period of 45 days, beginning March 17, 2009 and ending on May 1, 2009. During that period the document was presented publicly before the Transportation Advisory Commission (TAC) and Historic Preservation Commission. A Public Hearing to receive public comments was also held before the Hearing Officer. The Notice of Availability, which included the dates, times, and locations of all three meetings, was posted with the Los Angeles County Clerk's office, the State Clearinghouse, and mailed to all property owners within a 300ft radius of the Project site. In addition, public review of the Draft EIR was included on the agendas of the three aforementioned City advisory bodies and distributed to their standard recipients. Notice of the Public Hearing was additionally noticed with two 3'x 4' signs posted directly at the Project site 14 days prior to the Hearing, in accordance with the City's Zoning Code requirements.

The commenter makes specific reference to the TAC meeting. These meetings are indeed held at different times, some in the mornings and some in the evenings. Meeting times are established and posted months in advance, however. The TAC meeting at which the subject EIR was reviewed was not rescheduled at any point during the 45-day public review period.

RESPONSE NO. 3-18

The comment suggests that access to the project be limited to Edmondson Alley and that Edmondson alley should only provide access to Pico Street. This access plan would force all project traffic to enter/leave the site through the Edmondson/Pico location and then spread to either Raymond/Pico or Fair Oaks//Pico. Therefore, prohibiting project access from Fair Oaks Avenue and California Boulevard would negatively impact the project circulation and could potentially cause significant impacts at other intersections. The limited access driveway from Fair Oaks Avenue would provide an alternate access for vehicles to the site, thus reducing northbound right-turn project vehicles at the Fair Oaks Avenue and California Boulevard intersection. Eliminating project access from California Boulevard would imply closing Edmondson Alley – an alley that provides access to other properties within the area. Alleys are designed to alleviate traffic along

major arterials. Full access to the project site through the alley driveway will reduce congestion associated with the project at the intersection of California Boulevard and Fair Oaks Avenue by limiting the amount of unprotected left turns to and from Fair Oaks Avenue that might otherwise be required to access the site, and spreading out project-related traffic. Access through the alley also takes slow moving entrance and exit traffic off California Boulevard and Fair Oaks Avenue, thus reducing traffic, pedestrian conflicts and safety concerns on these streets.

RESPONSE NO. 3-19

The comment implies that the number of tenants that will occupy the proposed office building is a known quantity and that there is a 1:1 ratio between the number of tenants and the number of cars to be parked on-site. With respect to the first conclusion, the proposed office space has yet to be leased and, therefore, any estimate regarding the number of tenants that will occupy the space is speculative. That said, even if there are more than 255 tenants in the building, the conclusion cannot be made that every tenant will drive a single occupancy vehicle to the site everyday and, therefore, require one parking space for each tenant.

Instead, Section 17.46.040 of the Zoning Code establishes the parking requirement for the proposed project based on the size of the building and an established ratio of 3 spaces/1,000 square feet for office uses. For this proposed project, with approximately 113,200 square feet of gross building area, the total required number of parking spaces is 340 spaces. In accordance with the Code (Section 17.50.340 e), when a non-residential project is within a transit-oriented district, the required off-street parking should be reduced by 25 percent. Therefore, the final parking requirement for this project is 255 spaces. The project fulfills the parking requirement by providing the required 255 spaces. In addition, the project applicant is subject to the City's Trip Reduction Ordinance and, as such, is required to implement a Transportation Demand Management (TDM) program.

RESPONSE NO. 3-20

An area-wide parking impact analysis is beyond the scope of this EIR.

April 29, 2009

Via E-Mail & Hand Delivery
Ms. Erin Clark, Associate Planner
City of Pasadena Planning Department
Economic Development Division
100 N. Garfield Avenue – Room S116
Pasadena, CA 91109

Re: DEIR for 16 E. California Project

Dear Ms. Clark,

The Board of Directors of the West Pasadena Residents' Association ("WPRA") is satisfied with the applicant's design as it appears in the DEIR. The open courtyard and fountain facing the intersection of Fair Oaks and California are a welcome relief from the relatively featureless designs of the other buildings on that corner. 4-1

The applicants have designed ingress and egress attempting to minimize the impact on traffic at the already heavily congested intersection of Fair Oaks and California. However, this proposed development will increase traffic at that intersection, and we believe more should be done to reduce traffic in the area. 4-2

The WPRA finds the traffic analysis seriously flawed, and the conclusions it reaches are unacceptable. The analysis did not include Sares Regis and Ambassador West developments that are within a quarter-mile radius of the planned building. Future development one block south on Fair Oaks will also increase traffic at the Fair Oaks and California intersection. The analysis did not include the impact on traffic on Fair Oaks north of California, nor did it include the impact of increased traffic due to the expanded emergency facility at the Huntington Hospital. The study area should be widened to include all street segments within a one quarter to half mile radius of the project. Although the Gold Line crossing is three blocks away, queuing from the train crossing slows traffic at the intersection at peak traffic hours. The forecast of increased Gold Line traffic will increase this queuing. 4-3

The neighborhood has not yet begun to experience the impact of the almost-completed medical building on the southwest corner of the intersection. The traffic study assumes that substantially all of the 16 E. California tenants would arrive in the morning and leave in the evening with little, if any, in and out traffic during the day. It is unclear that this assumption is reasonable. Tenants such as medical labs and food sellers that serve the medical offices in the neighborhood could generate customer traffic throughout the day. The EIR discounts trips from 1,246 down to 253 trips and, as one planning commissioner noted, is based on a series of assumptions that make the trip generation analysis "incomprehensible" and "unbelievable." 4-4

As incomplete as the analysis is, it still forecasts levels of service that are unacceptable. No development should be allowed which forecasts levels of service of "D" or "E". The City of Pasadena should never plan for gridlock, and anyone, even now, who tries to transit the California/Fair Oaks intersection can see that it is close to gridlock already. Prior to project approval, the City should require a traffic study that includes all of these impacts, with the study area widened to include all impacted streets and intersections. 4-4

Finally, the WPRA is concerned about the limited parking in the new building. The design calls for 255 spaces, but estimates of the number of workers more in the 400 range. Plans to encourage bicycle and Gold Line use appear to be indeterminate. Overflow parking would likely go to the parking garage at Fillmore and Raymond, which will then reduce the amount of parking available for Gold Line commuters. Visitors who arrive and find the parking spaces occupied will further increase traffic in the area as they search for alternative parking. Additional on-site parking should be provided. 4-5

Sincerely,

Audrey O'Kelley
President

cc: Michael Beck, City Manager
Fred Dock, Director of Transportation
Councilman Steve Madison, District 6

LETTER NO. 4

Audrey O'Kelley, President
West Pasadena Residents Association

RESPONSE NO. 4-1

This comment confirms the review of the Draft EIR by the Board of Directors of the West Pasadena Residents' Association (WPRA) and commends the proposed Project for its design features. The comment does not introduce new environmental information specific to the proposed Project. The comment is acknowledged and will be forwarded to the decisionmakers for review and consideration.

RESPONSE NO. 4-2

Comment noted. The request for an areawide traffic improvement program is beyond the scope of one project. The upcoming General Plan Mobility Plan Update will focus on the types of traffic circulation and congestion analyses being requested in this comment.

RESPONSE NO. 4-3

Refer to Response No. 3-3 for a discussion of related projects.

Refer to Response No. 1-5 for a discussion of the traffic analysis methodology and impacts to the intersection of Fair Oaks Avenue and California Boulevard.

Refer to Response No. 1-9 for a discussion of street segment impacts.

Refer to Response No. 1-11 for a discussion of traffic impacts regarding the Gold Line expansion.

RESPONSE NO. 4-4

The LOS calculations and analysis in the Traffic Study are based on the City's *Transportation Impact Review Current Practice and Guidelines*. The LOS calculations are based on a snapshot of the conditions at the time the counts were conducted. The analysis does evaluate a worst-case scenario of project-related traffic impacts that are expected to occur during the AM and PM peak hours of the day and found that the incremental impacts at the study intersections did not exceed the significance thresholds outlined in the City's guidelines.

The trip generation estimate for the project assumes that 175 of the project trips would occur in the morning peak hour and another 169 trips would occur in the afternoon peak hour. Given the estimated number of 1,246 daily trips, only 28 percent of the project daily trips would occur in the peak hours of the day and the remaining 902 trips (72 percent of the daily traffic volume to/from the project) would occur outside the peak hours.

The assumptions regarding project trip generation adjustments are discussed in Response No. 1-6.

The comment regarding the City's plan to "design for gridlock" is acknowledged and will be forwarded to the decisionmakers for review and consideration.

RESPONSE NO. 4-5

Refer to Response Nos. 3-6 and 3-19 for a discussion of parking impacts.

Letter No. 5

On behalf of the Madison Heights Neighborhood Association I want to indicate my full support for the recommendations of the Transportation Advisory Commission letter of April 27. I spoke at the April 2nd TAC Meeting and indicated that rush hour traffic congestion has an impact on our neighborhood when westbound traffic on California backs up beyond Marengo Avenue. This congestion results in drivers making illegal turns onto our residential streets with associated travel at unsafe speeds. **5-1**

At the meeting I questioned the applicability of the traffic simulation studies in support of the 16 East California Project. The studies may be theoretically correct, but they are inconsistent with the reality of the traffic situation. Traffic simulations assume a theoretical flow on California of 1,700 cars per hour per lane. In reality, both in the rush hours and off-hours, one or more lanes may be brought to a standstill when pedestrians cross Fair Oaks. The result is that the curbside lane is stopped due to cars waiting to make a right hand turn. At the same time the middle lane may become blocked by cars overflowing the space allowed in the left turn lane. At one or more instances during an hour there will be periods of near total stoppage that cause backups beyond streets parallel to Fair Oaks. The resultant grid lock is compounded by Gold Line crossings. **5-2**

The Draft EIR correctly pointed out that several intersections will drop one level of service category by 2010 without the project. Beyond 2010, the P.M. level of service for California/Fair Oaks will certainly drop from C to D. A level D situation with associated Gold Line crossings is certain to cause major gridlock situations. **5-3**

A decision to authorize new construction before traffic implications of soon to be occupied buildings are understood would place the Fair Oaks/California intersection, adjacent intersections and nearby residential communities at great risk. The Madison Heights Neighborhood Association asks for a delay of approval for the project until a major traffic study with appropriate traffic improvement plans in completed. **5-4**

Neil Kleinman
President

LETTER NO. 5

Neil Kleinman, President
Madison Heights Neighborhood Association

RESPONSE NO. 5-1

The segments selected for analysis are those that could be directly impacted by project trips. Analyses of larger areas are beyond the scope of this project and are to be addressed as a part of the City's General Plan Update. Nonetheless, Department of Transportation has Citywide Neighborhood Protection Programs that protects residents from the intrusion of through traffic from neighborhoods.

The comment refers specifically to congestion on westbound California Boulevard east of Arroyo Parkway. While the project would add traffic to the intersection of Arroyo Parkway/California Boulevard, the incremental impact on the intersection would be small. Ten percent of the inbound traffic to the project would use westbound California Boulevard east of Arroyo Parkway. This means that approximately 10 new project trips would be added to the 1,141 westbound trips projected to use that segment in 2010 during the morning peak hour.

In the afternoon peak hour, an office building generates very few inbound trips, so when compared to the restaurant and commercial trips that are generated by the existing land uses on the site, the proposed office building would actually generate fewer westbound PM peak hour trips on California Boulevard than occurred with the existing land uses on the site. Therefore, when compared to future base conditions, the project would result in a slight decrease in afternoon peak hour trips on westbound California Boulevard east of Arroyo Parkway.

RESPONSE NO. 5-2

The traffic study prepared for the proposed Project analyzed both intersection and street segment impacts along California Boulevard. The LOS calculations and analyses are based on the City's *Transportation Impact Review Current Practice and Guidelines*.

The LOS calculations are based on a snapshot of the conditions at the time the counts were conducted. An acceptable LOS does not imply that conditions experienced by drivers are satisfactory at all times. The circulation and mobility in the area will be studied in the City's Mobility Element Update.

RESPONSE NO. 5-3

The LOS calculations are based on the City's *Transportation Impact Review Current Practice and Guidelines.* An acceptable LOS does not imply that conditions experienced by drivers are satisfactory at all times. The thresholds for significant impact at the intersections are prescribed in the City's traffic guidelines to determine whether a project significantly impacts intersections and street segments within the study area.

Refer to Response No. 1-11 for a discussion of traffic impacts related to Gold Line expansion.

RESPONSE NO. 5-4

The comment does not introduce new environmental information specific to the proposed Project. The comment is acknowledged and will be forwarded to the decisionmakers for review and consideration.

VIII. Mitigation Monitoring and Reporting Program

VIII. MITIGATION MONITORING AND REPORTING PROGRAM

A. INTRODUCTION

The Mitigation Monitoring and Reporting Program (MMRP) has been prepared for the 16. E California Project located in the City of Pasadena in compliance with Section 21081.6 of the Public Resources Code and Section 15097 of the CEQA Guidelines, which is required for all projects where an Environmental Impact Report or Mitigated Negative Declaration has been prepared. Section 21081.6 of the Public Resources Code sates: " …the [lead] agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment…[and the program] shall be designed to ensure compliance during project implementation". The City of Pasadena is the Lead Agency for the proposed project.

The MMRP describes the procedures utilized to implement the mitigation measures identified in the EIR. It is the intent of the MMRP to: (1) verify satisfaction of the required mitigation measures of the EIR; (2) provide a methodology to document implementation of the required mitigation; (3) provide a record of the Monitoring Program; (4) identify monitoring responsibility; (5) establish administrative procedures for the clearance of mitigation measures; (6) establish the frequency and duration of monitoring; and (7) utilize existing review processes where feasible.

The MMRP lists mitigation measures according to the numbering system established in the EIR sections. The mitigation measures are listed by impact area, with an accompanying identification of the following:

- Responsible Implementation Party/ Monitor and Reporter;
- Time Frame/Monitoring Milestone during which the mitigation measure should be implemented; and
- Party Responsible to Review Reports.

16 E. CALIFORNIA PROJECT
Mitigation Monitoring & Reporting Program Matrix

Impact	Significance Conclusion After Mitigation	Mitigation Measures	Responsible Implementation Party/ Monitor & Reporter	Time Frame/ Monitoring Milestone	Responsible to Review Reports
SU = Significant and Unavoidable LTS = Less Than Significant NI = No Impact					
A. Air Quality					
Construction Impact: Regional	**SU**	**MM A-1:** Contractors shall implement a fugitive dust control program pursuant to the provisions of SCAQMD Rule 403.	**Applicant's Mitigation Monitor**	**For inclusion in approved Construction Management Plan**	**Public Works Department**
		MM A-2: All construction equipment shall be properly tuned and maintained in accordance with manufacturer's specifications.			
		MM A-3: Contractors shall maintain and operate construction equipment so as to minimize exhaust emissions.			
		MM A-4: Electricity from power poles rather than temporary diesel- or gasoline-powered generators shall be used to the extent feasible.			
		MM A-5: All construction vehicles shall be prohibited from idling in excess of ten minutes, both on- and off-site.			
Construction Impact: Localized	**LTS**	None			
Construction Impact: Green House Gas Emissions	**LTS**	None			
Construction Impact: Toxic Air Contaminants	**LTS**	None			

16 E. CALIFORNIA PROJECT
Mitigation Monitoring & Reporting Program Matrix

Impact	Significance Conclusion After Mitigation	Mitigation Measures	Responsible Implementation Party/ Monitor & Reporter	Time Frame/ Monitoring Milestone	Responsible to Review Reports
SU = Significant and Unavoidable LTS = Less Than Significant NI = No Impact					
A. Air Quality					
Construction Impact: Odors	**NI**	None			
Operational Impact: Regional	**NI**	None			
Operational Impact: Local	**LTS**	None			
Operational Impact: Toxic Air Contaminants	**LTS**	None			
Operational Impact: Global Climate Change	**LTS**	None			
Operational Impact: Odors	**LTS**	None			

16 E. CALIFORNIA PROJECT
Mitigation Monitoring & Reporting Program Matrix

Impact	Significance Conclusion After Mitigation	Mitigation Measures	Responsible Implementation Party/ Monitor & Reporter	Time Frame/ Monitoring Milestone	Responsible to Review Reports
SU = Significant and Unavoidable LTS = Less Than Significant NI = No Impact					
B.1 Cultural Resources: Historic Resources					
Construction Impact: Demolition of 592 S. Fair Oaks; 590 S. Fair Oaks; 10 E. California Boulevard	**NI**	None			
Construction Impact: Sign Removal (592 S. Fair Oaks)	**LTS**	**MM B-1: Recordation and Photography.** A Historic American Buildings Survey (HABS) level III recordation shall be prepared. The signage shall be documented in large format black-and-white photographs and written narrative in accordance with HABS requirements. Completion of the HABS level III recordation of the existing signs on the project site should be implemented prior to their removal and before commencement of construction activities. The building's exterior showing the signs in place, the signage, as well as the property setting and contextual views shall be documented. Original archival prints shall be submitted to the California Office of Historic Preservation, the City of Pasadena Planning and Development Department and the Pasadena Public Library.	**Applicant's qualified architectural historian or historic architect and a photographer experienced in Historic American Building Survey (HABS) photography**	**Prior to removal of two signs (pole mounted and wall mounted) from 592 S. Fair Oaks Ave.**	**Design & Historic Preservation Section**

16 E. CALIFORNIA PROJECT Mitigation Monitoring & Reporting Program Matrix					
Impact	**Significance Conclusion After Mitigation**	**Mitigation Measures**	**Responsible Implementation Party/ Monitor & Reporter**	**Time Frame/ Monitoring Milestone**	**Responsible to Review Reports**
SU = Significant and Unavoidable LTS = Less Than Significant NI = No Impact					
B.1 Cultural Resources: Historic Resources					
	LTS	**MM B-2: Signage Relocation.** To assist the general public and interested parties in understanding the history of neon signage in Pasadena and to make these historic resources available to the public, the neon and metal signage of the circa 1951-1953 pole-mounted sign located at 592 S. Fair Oaks Avenue shall be preserved on site (if feasible) and, if it cannot be preserved on site, it is preferred that it remain in the City and be exhibited in a suitable location in public view. The wall mounted sign (circa 1961) may be donated to a suitable off-site repository or collection, preferably one located either within Pasadena or another location within the Los Angeles metropolitan area, such as the Museum of Neon Art in Los Angeles, which will ensure the continued preservation of the signage. To reduce potential damage to the signs during their relocation, the applicant shall obtain the services of a qualified conservator experienced in the removal and conservation of neon signage and who shall prepare and implement a relocation plan. Prior to the issuance of a demolition permit and any permits for the relocation of the signs, the relocation plan shall be reviewed	**Applicant's qualified conservator and preservation consultant**	**Prior to issuance of demolition permit**	**Planning & Development Department: Design & Historic Preservation**

16 E. CALIFORNIA PROJECT Mitigation Monitoring & Reporting Program Matrix					
Impact	**Significance Conclusion After Mitigation**	**Mitigation Measures**	**Responsible Implementation Party/ Monitor & Reporter**	**Time Frame/ Monitoring Milestone**	**Responsible to Review Reports**
SU = Significant and Unavoidable LTS = Less Than Significant NI = No Impact					

B.1 Cultural Resources: Historic Resources					
		by City of Pasadena Design & Historic Preservation staff. The signs may be temporarily relocated in an effort to protect their integrity if deemed necessary and with the approval of City Historic Preservation staff.			

16 E. CALIFORNIA PROJECT
Mitigation Monitoring & Reporting Program Matrix

Impact	Significance Conclusion After Mitigation	Mitigation Measures	Responsible Implementation Party/ Monitor & Reporter	Time Frame/ Monitoring Milestone	Responsible to Review Reports
SU = Significant and Unavoidable LTS = Less Than Significant NI = No Impact					
B.2 Cultural Resources: Archaeological and Paleontological Resources					
Construction Impact: Paleontological Resources Paleontological records search indicates that excavations into the older Quaternary Alluvium deposits within the Project site are likely to contain significant vertebrate fossils. Thus, construction of the Project, primarily excavation associated with the parking structure at depths averaging 20 feet, has the potential to result in significant impacts associated with the permanent loss of, or loss of access to, a paleontological resource. Thus, impacts to paleontological resources are considered potentially significant prior to mitigation.	**LTS**	**MM B-3:** A qualified paleontologist shall attend a pre-grade meeting and develop a paleontological monitoring program to cover excavations in the event they occur into the older Quaternary Alluvium. A qualified paleontologist is defined as a paleontologist meeting the criteria established by the Society for Vertebrate Paleontology. If excavation into Quaternary Alluvium occurs, monitoring shall consist of visually inspecting fresh exposures of rock for larger fossil remains and, where appropriate, collecting wet or dry screened sediment samples of promising horizons for smaller fossil remains. If it is determined that excavation will not encounter Quaternary Alluvium, no further measures need be taken. The frequency of monitoring inspections shall be based on the rate of excavation and grading activities, the materials being excavated, and if found, the abundance and type of fossils encountered.	**Applicant's qualified paleontologist**	**Prior to issuance of grading permit**	**Building Division**
		MM B-4: If a potential fossil is found, the paleontologist shall be allowed to temporarily divert or redirect grading and excavation activities in the area of the exposed fossil to facilitate evaluation and, if necessary, salvage.	**Applicant's qualified paleontologist**	**During grading/excavation activities**	**Building Division**

16 E. CALIFORNIA PROJECT Mitigation Monitoring & Reporting Program Matrix					
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B.2 Cultural Resources: Archaeological and Paleontological Resources					
		MM B-5: At the paleontologist's discretion and to reduce any construction delay, the grading and excavation contractor shall assist in removing rock samples for initial processing.	**Applicant's qualified paleontologist**	**During grading/excavation activities**	**Building Division**
		MM B-6: Any fossils encountered and recovered shall be prepared to the point of identification and catalogued before they are donated to their final repository.	**Applicant's qualified paleontologist**	**During grading/excavation activities**	**Building Division**
		MM B-7: Any fossils collected shall be donated to a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County. Accompanying notes, maps, and photographs shall also be filed at the repository.	**Applicant's qualified paleontologist**	**During grading/excavation activities**	**Building Division**

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B.2 Cultural Resources: Archaeological and Paleontological Resources					
		MM B-8: If fossils are found following completion of the above tasks the paleontologist shall prepare a report summarizing the results of the monitoring and salvaging efforts, the methodology used in these efforts, as well as a description of the fossils collected and their significance. The report shall be submitted by the Project Applicant to the lead agency, the Natural History Museum of Los Angeles County, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the Project and required mitigation measures.	**Applicant's qualified paleontologist**	**During grading/excavation activities**	**Building Division**

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Mitigation Monitoring & Reporting Program Matrix

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B.2 Cultural Resources: Archaeological and Paleontological Resources					
Construction Impact: Archaeological and Native American Resources No prehistoric archaeological sites were identified on or within a one-half mile radius of the Project site. In addition, the Project site has been urbanized and developed for over 100 years and surficial and buried archaeological resources that may have existed prior to the disturbances are likely to have been displaced. Thus, impacts to archaeological resources are considered less than significant. Nonetheless, in the event archaeological resources are unexpectedly encountered during Project implementation, mitigation measures are recommended. No Native American resources in or adjacent to the Project site have been identified and no responses from Native American individuals or organizations contacted have been received. Thus, no impacts are anticipated to Native American resources.	**LTS**	**MM B-9:** If archaeological resources are encountered during project implementation, an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards (the "Archaeologist") shall be immediately notified and retained by the Project Applicant and approved by the City to oversee and carryout the mitigation measures stipulated in this EIR.	**Applicant's qualified archaeologist**	**During grading/excavation activities**	**Building Division**
		MM B-10: If archaeological resources are encountered during project implementation, the qualified archaeologist should coordinate with the Project Applicant as to the immediate treatment of the find until a proper site visit and evaluation is made by the archaeologist. The archaeologist shall be allowed to temporarily divert or redirect grading or excavation activities in the vicinity in order to make an evaluation of the find and determine appropriate treatment. Treatment will include the goals of preservation where practicable and public interpretation of historic and archaeological resources. All cultural resources recovered will be documented on California Department of Parks and Recreation Site Forms to be filed with the CHRIS-SCCIC. The archaeologist shall prepare a final report about the find to be filed with Project	**Applicant's qualified archaeologist**	**During grading/excavation activities**	**Building Division**

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B.2 Cultural Resources: Archaeological and Paleontological Resources					
However, if Native American resources are unexpectedly encountered during Project implementation, the mitigation measures recommended would address potential impacts.		Applicant, the City, and the CHRIS-SCCIC, as required by the California Office of Historic Preservation. The report shall include documentation and interpretation of resources recovered. Interpretation will include full evaluation of the eligibility with respect to the National and California Register of Historic Places and CEQA. The report shall also include all specialists' reports as appendices. The Lead Agency shall designate repositories in the event that significant resources are recovered. The archaeologist shall also determine the need for archaeological and Native American monitoring for any ground-disturbing activities thereafter. If a need is warranted, the archaeologist will develop a monitoring program in coordination with a Native American representative (if there is potential to encounter prehistoric or Native American resources), the Project Applicant, and the City. The monitoring program will also include a treatment plan for any additional resources encountered and a final report on findings.			
	LTS	**MM B-11:** If human remains are encountered unexpectedly during construction excavation and grading activities, State Health and Safety Code	**Applicant's qualified archaeologist**	**During grading/excavation activities**	**Building Division**

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B.2 Cultural Resources: Archaeological and Paleontological Resources					
		Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the NAHC. The NAHC will then identify the person(s) thought to be the Most Likely Descendent of the deceased Native American, who will then help determine what course of action should be taken in dealing with the remains. Preservation of the remains in place or Project design alternatives shall be considered as possible courses of action by the Project Applicant, the City, and the Most Likely Descendent.			

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Mitigation Monitoring & Reporting Program Matrix

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C. Noise					
Construction Impact: **On-Site Construction Activities** Estimated construction-related noise at the nearest single-family residential uses along Concordia Court, the hospital use on Fairmount Avenue, and the residences along Pico Street would not exceed existing ambient noise levels. In addition, construction equipment noise levels would be below the City's noise limit of 85 dBA at a distance of 100 feet. As such, construction-period noise impacts would be less than significant. Nonetheless, mitigation measures are recommended to reduce noise levels at adjacent properties where construction noise would exceed ambient noise levels.	**LTS**	**MM C-1:** Construction activities shall be limited to the following hours in accordance with the City's Municipal Code: From 7:00 A.M. to 7:00 P.M. Monday through Friday; From 8:00 A.M. to 5:00 P.M. on Saturday; Construction shall not occurred on Sundays and Holidays.	**Applicant's Mitigation Monitor**	**Throughout construction period**	**Public Works Department**
		MM C-2: Noise-generating construction equipment operated at the project site shall be equipped with effective noise control devices, (i.e., mufflers, lagging, and/or motor enclosures). All equipment shall be properly maintained to assure that no additional noise, due to worn or improperly maintained parts, would be generated.	**Applicant's Mitigation Monitor**	**Throughout construction period**	**Building Division/Code Compliance**
		MM C-3: Engine idling from construction equipment such as bulldozers and haul trucks shall be limited, to the extent feasible.	**Applicant's Mitigation Monitor**	**Throughout construction period**	**Building Division/Code Compliance**
		MM C-4: To the extent feasible, construction activities shall be scheduled so as to avoid operating several pieces of heavy equipment simultaneously, which causes high noise levels.	**Applicant's Mitigation Monitor**	**Throughout construction period**	**Building Division/Code Compliance**

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C. Noise					
Construction Impact: Ground-Borne Vibration	**LTS**	None			
Operational Impact: Off-Ste Roadway Noise	**LTS**	None			
Operational Impact: Stationary Point-Source Noise	**LTS**	None			
Operational Impact: Site Compatibility	**LTS**	None			
Operational Impact: Vibration	**LTS**	None			

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D. Traffic					
Construction Impact: **Traffic**	**LTS**	None			
Operational Impact: **Intersections**	**LTS**	None			
Operational Impact: **Roadway Segments** Pico Street between Raymond Avenue and Edmondson Alley	**SU**	**MM D-1:** In order to address increased traffic volumes on Pico Street associated with the proposed project the applicant shall provide a contribution to the citywide traffic monitoring program to purchase and install two traffic monitoring stations on Pico Street.	**Applicant**	**Prior to issuance of building permit**	**Department of Transportation**
Operational Impact: **Regional Transportation System**	**LTS**	None			
Operational Impact: **Project Access**	**LTS**	None			

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E. Hazardous Materials					
Construction Impact: Asbestos The two on-site buildings within the western portion of the site are known to contain Asbestos Containing Materials (ACM). In addition, the auto body shop building may also contain ACM. Demolition of buildings containing ACM is, therefore, considered to be a potentially significant impact prior to mitigation.	**LTS**	**MM E-1:** Prior to the issuance of demolition permits, the Applicant shall submit to the City a comprehensive pre-demolition asbestos survey in accordance with SCAQMD Rule 1403. The survey shall be reviewed and approved by the City of Pasadena Building and Safety Division. All identified ACM shall be removed and disposed of by a registered Cal-OSHA-certified asbestos abatement contractor prior to any disturbance of the material, and the Applicant shall submit documentary proof of such handling to the City.	**Applicant**	**Prior to issuance of demolition permits**	**Building Division**
Construction Impact: Lead Based Paint Lead Based Paint (LBP) materials were found on various interior and exterior surfaces in both buildings within the western portion of the site. In addition, the auto body shop building may also contain LBP. Therefore, demolition of buildings containing LBP is considered to be a potentially significant impact prior to mitigation.	**LTS**	**MM E-2:** Prior to issuance of demolition permits, the Applicant shall submit to the City of Pasadena Building and Safety Division a lead-based paint survey for all existing buildings located on the project site. All identified lead-based paint shall be handled and disposed of pursuant to OSHA regulations, and the Applicant shall submit documentary proof of such handling to the City.	**Applicant**	**Prior to issuance of demolition permits**	**Building Division**

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E. Hazardous Materials					
Construction Impact: Underground and Former Above Ground Storage Tanks No physical evidence or documentary evidence indicates USTs have existed on the Project site. However, it is possible that undocumented USTs were used at the site and may still exist despite extensive redevelopment of the site over the years. Unknown USTs discovered during excavation of the site could contain hazardous materials, which may create hazards to construction workers and is considered to be a potentially significant impact prior to mitigation.	**LTS**	**MM E-3:** Prior to initiating grading on the site the Applicant shall inform contractor of the potential for discovery of underground storage tanks (USTs), as well as former above ground storage tanks, or remnants thereof, in the subsurface. In the event USTs or former above ground storage tanks are encountered, work in the immediate area shall be halted and the Pasadena Fire Department shall be contacted to ensure that proper procedures are established and followed for their removal. A qualified environmental consultant shall be contacted to evaluate the soil conditions in the area surrounding the tanks. Work in the area shall only continue with authorization from the Pasadena Fire Department.	**Applicant**	**During grading activities**	**Fire Department**
Construction Impact: Contaminated Soils Chemical testing for metals on site revealed that concentrations of metals and TPH concentrations were below levels constituting the need for special handling, treatment or disposal of the soil cuttings. Nonetheless, it is possible that the soils in this	**LTS**	**MM E-4:** Prior to initiation of excavation and grading activities, the Applicant shall retain a qualified environmental consultant to prepare a soils management plan, which will be submitted to the City of Pasadena Building and Safety Division for review and approval. The soils management plan shall be implemented during excavation and grading activities at the site to ensure that any contaminated soil are properly disposed	**Applicant's qualified environmental consultant**	**Prior to issuance of grading permit**	**Building Division**

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E. Hazardous Materials					
area could yield contamination above and beyond what was identified in the Phase I and Limited Phase II ESA during Project construction excavation and/or grading activities. This is considered to be a potentially significant impact prior to mitigation.		of offsite. The plan shall include but not necessarily be limited to the following: - A qualified environmental consultant shall be present at all times during digging or grading activities to monitor compliance with the soils management plan and to actively monitor the soils and excavations for evidence of contamination. Any soil encountered during future excavation or grading activities that appears to have been affected by hydrocarbon or any other contamination shall be evaluated, based upon appropriate laboratory analysis, by a qualified environmental consultant prior to offsite disposal at a licensed facility. - Soils in the southwestern corner of the site near Boring Location B-1, as identified in the Phase I and Limited Phase II ESA, shall be segregated and analyzed prior to offsite disposal. Identified contamination shall be removed to the extent practicable. This may require over-excavation in this area and further analysis of this soil to determine the extent of soil contamination.			

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E. Hazardous Materials					
		- All detectable contaminated soils shall be properly handled and transported to an appropriately licensed disposal facility.			
	LTS	None			

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F. Water Supply					
Operational Impact: Water Efficiency As water supplies face challenges from drought, climate change, and pumping restrictions, both MWD and the City include conservation as a portion of the future strategy to ensure that water supplies are maximized, while consumer demand is minimized. Although Pasadena Water and Power would be able to supply the projected water demand, impacts to water supply are considered potentially significant without implementation of conservation measures.	**LTS**	**MM F-1:** The water usage of the proposed building to be retained shall be reduced by 20 percent, in accordance with section 14.90.050 of the Pasadena Municipal Code. In order to demonstrate this reduction, the Applicant must submit a water-conservation plan for review and approval by the Planning Division. This plan is also subject to review and approval by the City's Water and Power Department and the Building Division before the issuance of a building permit. The plan must demonstrate the ability to limit water consumption to 80 percent of its originally anticipated amount. The project's irrigation and plumbing plans are also required to comply with the approved water-conservation plan. For this project, the original amount is 22,640 gallons/day and the required 20 percent reduction is 4,528 gallons/day. Plumbing permits required in order to complete this reduction shall be finalized prior to certificate of occupancy.	**Applicant**	**Water conservation plan to be submitted prior to issuance of building permits** **Plumbing permits to be submitted prior to issuance of certificate of occupancy**	**Building Division**
		MM F-2: The Applicant shall submit a detailed landscape plan that proposes the planting of "California Friendly" plants and the use of high efficiency irrigation technology. Landscape and irrigation plans shall be submitted for review with each phase of the project and shall be reviewed by the Design Commission in combination with the building plans.	**Applicant**	**Prior to Final Design approval**	**Design Commission**

IX. Persons and Organizations

IX. PERSONS AND ORGANIZATIONS

A. DOCUMENT PREPARATION

1. Lead Agency

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- Fatima Vidal, Archaeological Technician

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4. Project Applicant

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X. REFERENCES

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Appendices

Appendix A

Initial Study, NOP, and NOP Comments

Notice of Preparation and Environmental Impact Report and Scoping Meeting

To: Agencies, Organizations and Interested Parties

From: City of Pasadena
Planning and Development Dept.
Economic Development Division
100 North Garfield Avenue, S116
Pasadena, California 91109

Subject: Notice of Preparation of a Draft Environmental Impact Report

The City of Pasadena will be the Lead Agency and will prepare an Environmental Impact Report (EIR) for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The probable environmental effects are air quality, cultural resources, hazards/hazardous materials, noise, transportation/traffic, and utilities (water supply) impacts. The Initial Environmental Study may be reviewed from October 1 through October 30, 2008 at the Planning and Development Department, at 175 N. Garfield Avenue, Pasadena, California 91109, between the hours of 8:00 AM and 5:00 PM Monday through Thursday and between 8:00 AM and 12:00 PM on Friday. The Initial Environmental Study may also be viewed at the Central Library, located at 285 East Walnut Street and on the Planning and Development web page at:
http://www.ci.pasadena.ca.us/planning/environmental/Environmental_Home.asp.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but **not later than 30 days** after receipt of this notice.

Please send your response to **Erin Clark** at the address shown above. We will need the name for a contact person in your agency.

Scoping Meeting: The City of Pasadena will hold an EIR scoping meeting for the project at **6:00 PM on Thursday, October 16, 2008**. The meeting will be held at the Permit Center Hearing Room, 175 N. Garfield Avenue, Pasadena, CA 91109.

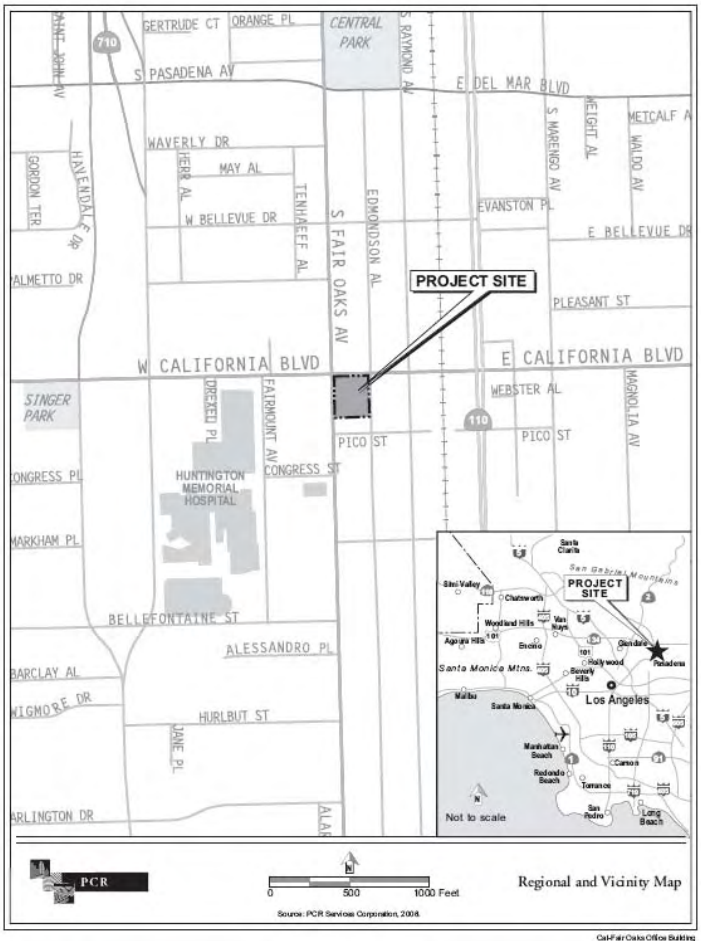
The City encourages anyone with an interest to attend this meeting and express their ideas.

Project Location: 590-612 South Fair Oaks Avenue and 12-26 East California Boulevard. The project site is located on the southeast corner of California Boulevard and Fair Oaks Avenue in the City of Pasadena, California. 565 J6 (Thomas Guide) – (Also refer to attached "Regional and Vicinity Map")

Project Title: 16 East California Project

Project Applicant: Council Rock Partners

Project Description: The project site is located at the southeast corner of the intersection of California Boulevard and Fair Oaks Avenue. The proposed project is an approximately 113,200 gross square foot office building (approximately 100,240 rentable square feet), and would require demolition of three existing buildings in order to develop a four-story, 45-foot high office building located over a two-level subterranean parking garage. The building would also include architectural features and screening that may go up to an additional 14 feet to provide building continuity, attractive design, and screening for mechanical equipment.



The project site is comprised of five parcels that are currently improved with a 6,525 square foot unoccupied building (formerly Monty's Steakhouse), a 2,720 square foot building occupied by the Grandview Palace Restaurant and a message therapy center, and a 3,390 square foot building occupied by M&G Auto Body. The total existing square footage for all three buildings is 12,635 square feet. The remaining areas of the site are devoted to 75 surface parking spaces. The total site area is approximately 42,090 square feet (0.97 acres). Overall, the project would result in a net increase of 100,565 gross square feet of floor area when compared to existing conditions.

Vehicular access to the site would be provided via an ingress-only driveway from Fair Oaks Avenue. Access to the subterranean parking garage would be provided via Edmondson Alley with vehicles exiting via Edmondson Alley north to California Blvd or south to Pico Avenue.

Date: October 1, 2008

Signature:

Project Planner: Erin Clark
Title: Associate Planner
Telephone: (626) 744-6708
Fax: (626) 396-8528
E-mail: erclark@cityofpasadena.net

INITIAL STUDY

16 East California Boulevard

PLN 2008-00208
October 1, 2008
City of Pasadena

Contact Person:
Erin Clark, Associate Planner
City of Pasadena
Planning and Development Department
Economic Development Division
100 North Garfield Avenue, Rm S116
Pasadena, California 91109

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CITY OF PASADENA
PLANNING DIVISION
HALE BUILDING
175 NORTH GARFIELD AVENUE
PASADENA, CA 91109-7215

INITIAL STUDY

In accordance with the Environmental Policy Guidelines of the City of Pasadena, this analysis, the associated "Master Application Form," and/or Environmental Assessment Form (EAF) and supporting data constitute the Initial Study for the subject project. This Initial Study provides the assessment for a determination whether the project may have a significant effect on the environment.

SECTION I - PROJECT INFORMATION

1. Project Title:	16 East California Project
2. Lead Agency Name and Address:	Planning and Development Department City of Pasadena 175 North Garfield Avenue Pasadena, California 91109
3. Contact Person and Phone Number:	Erin Clark, Associate Planner (626) 744-4660
4. Project Location:	590-612 South Fair Oaks Avenue and 12-26 East California Boulevard. The project site is located on the southeast corner of California Boulevard and Fair Oaks Avenue in the City of Pasadena, California.
5. Project Sponsor's Name and Address:	Council Rock Partners 2121 Avenue of the Stars, Suite 990 Los Angeles, CA 90067
6. General Plan Designation:	South Fair Oaks Specific Plan
7. Zoning:	IG-SP-2

8. Description of the Project: The project site is located at the southeast corner of the intersection of California Boulevard and Fair Oaks Avenue. The project site is comprised of five parcels that are currently improved with a 6,525 square foot unoccupied building (formerly Monty's Steakhouse), a 2,720 square foot building occupied by the Grandview Palace Restaurant and a message therapy center, and a 3,390 square foot building occupied by M&G Auto Body. The total existing square footage in all three building is 12,635 square feet. The

remaining areas of the site are devoted to 75 surface parking spaces. The total site area is approximately 42,090 square feet (0.97 acres)

The proposed project is an approximately 113,200 gross square foot office building (approximately 100,240 rentable square feet). The project would require demolition of the existing buildings in order to develop a four-story, 45-foot high office building located over a two-level subterranean parking garage. The building would also include architectural features and screening that may go up to an additional 14 feet to provide building continuity, attractive design, and screening for mechanical equipment. Overall, the project would result in a net increase of 100,565 gross square feet of floor area when compared to existing conditions.

To promote a pedestrian friendly environment the proposed project includes two distinct open space areas. A plaza is proposed at the corner of Fair Oaks Avenue and California Boulevard with frontage on both streets. This space would feature landscaping, including large mature trees, decorative paving, seating areas and a water feature. The plaza would serve to activate pedestrian use at the corner while providing an inviting public plaza at the entry to the building. A smaller courtyard would be located in the southern-central portion of the site and would feature several trees and seating areas.

A contemporary architectural style is proposed for the office building. The building would incorporate a concrete frame with post-tensioned concrete floor slabs. The building's exterior would include a combination of painted, exposed concrete, large (colored) ceramic panels, and high-efficiency vision glass panels.

Vehicular access to the site would be provided via an ingress-only driveway from Fair Oaks Avenue. A loading dock would be located along the driveway from Fair Oaks Avenue in the southern portion of the site. The project would provide 255 parking spaces within the two-level subterranean parking garage consistent with the requirements of the City municipal code, for a total number of net new parking spaces on site of 180. Access to the subterranean parking would be provided via Edmondson Alley. Vehicles would exit the project via Edmondson Alley north to California Blvd or south to Pico Avenue.

The proposed project would be designed to qualify for a Leadership in Energy and Environmental Design (LEED) energy efficiency certification and would be developed in compliance with the City Green Practices Ordinance (PMC 14.90). Further, as standard design features, the project would incorporate active water conservation measures, including, but not limited to: low flow, dual flush toilet/urinal controls; time-control sink faucets; drip irrigation systems for all landscape areas with a master environmental control system; roof storm water runoff filtered through selected planters to provide plant irrigation prior to entering the storm water runoff system; low water use landscape materials with heavy surface mulch to reduce evaporation; and maintenance specifications that require low water use, including a motorized brush machine for regular cleaning of the exterior plaza, courtyard and parking garage (no hose off allowed).

It is anticipated that construction of the project would commence in late Spring 2009 and last approximately 19 months. It is anticipated that approximately 36,560 cubic yards of soil would be hauled away during excavation of the site to accommodate the parking structure. Building construction would then occur for approximately 16 months. Assuming this construction time frame, office spaces would be available for occupancy in late 2010, with full building occupancy determined based on market conditions.

9. Surrounding Land Uses and Setting: The site is bounded by California Boulevard to the north beyond which is a mix of one- to three-story office and commercial buildings. Edmondson Alley, which will provide access to subterranean parking for the project, is located to the east, beyond which are a mix of one- and two-story industrial buildings. Immediately south of the project site is a one-story, fast-food restaurant (Burger King) with a surface parking lot, beyond which is Pico Street. Fair Oaks Avenue bounds the project site to the west. Across Fair Oaks Avenue to the west, the four-story Huntington Pavilion (medical office) is currently being constructed. The Pavilion will extend along Fair Oaks Avenue from California Boulevard on the north to Pico Street on the south.

10. Other public agencies whose approval is required (e.g. permits, financing approval, or participation agreement).

The project would require a Minor Conditional Use Permit (CUP) for Tandem Parking and a Minor CUP for Transit Oriented Development, to be heard by the Hearing Officer. The conceptual and final design of the project would be required, and heard by the Design Commission. A Construction Staging and Traffic Management Plan would be required by the Department of Public Works. Demolition, grading, foundation and building permits would also be required. No approvals from public agencies other than the City of Pasadena are anticipated.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

	Aesthetics		Geology and Soils		Population and Housing
	Agricultural Resources	X	Hazards and Hazardous Materials		Public Services
X	Air Quality		Hydrology and Water Quality		Recreation
	Biological Resources		Land Use and Planning	X	Transportation/Traffic
X	Cultural Resources		Mineral Resources	X	Utilities and Service Systems
	Energy	X	Noise		Mandatory Findings of Significance

DETERMINATION: (to be completed by the lead agency).

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	
I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared.	
I find that the proposed project MAY have a significant effect(s) on the environment. Analysis in the Initial Study shows that one or more impact areas will have a "Potentially Significant Impact". An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that were not analyzed in a previously approved EIR or Negative Declaration for the project at hand.	X
I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because all potentially significant effects (1) have been analyzed in an earlier EIR pursuant to applicable standards and (2) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project.	

9/30/08

Prepared By/Date

Michael Harden, Principal Planner
PCR Services Corporation

Printed Name

Reviewed By/Date

Printed Name

Negative Declaration/Mitigated Negative Declaration adopted on: N/A

Adoption attested to by:

Printed name/Signature

Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. " Potentially Significant Impact' is appropriate if there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Unless Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The Lead Agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section 20, "Earlier Analysis," may be cross-referenced).

5) Earlier analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. See CEQA Guidelines Section 15063(c)(3)(D). Earlier analyses are discussed in Section 20 at the end of the checklist.

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier documents and the extent to which address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) The explanation of each issue should identify:

   a) The significance criteria or threshold, if any, used to evaluate each question; and

   b) The mitigation measure identified, if any, to reduce the impact to less than significant

SECTION II - ENVIRONMENTAL CHECKLIST FORM

1. BACKGROUND.

Date checklist submitted: September 30, 2008

Department requiring checklist: Planning and Development

Planner assigned: Erin Clark

2. ENVIRONMENTAL IMPACTS. (EXPLANATIONS OF ALL ANSWERS ARE REQUIRED):

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

3. AESTHETICS.

Would the project:

a. Have a substantial adverse effect on a scenic vista? ( )

☐	☐	☒	☐

WHY? The project site is within a highly urbanized community in southwestern Pasadena. The nearest residential use is approximately 1,000 feet from the project site. The topography of the project site and surrounding area is flat with no substantial topographical variations. A variety of buildings and structures exist in the surrounding area. To the north of the site beyond California Boulevard are a mix of one- to three-story office and commercial buildings. One- and two-story industrial buildings are located to the east and the four-story Huntington Pavilion (medical office) is currently being constructed to the west. To the south, beyond Pico Street is a mix of one- and story commercial uses. Given the flat topography in the project area and its built out nature with generally low-rise development, there are no significant long-range views across the project site. The project site is not in an area that offers notable views of the San Gabriel Mountains or views of the Arroyo Seco, the San Rafael Hills, Eaton Canyon, or Old Town Pasadena. Furthermore, the project would not in any way obstruct the views of any of these scenic resources.

In accordance with section 17.61.030 of the City's Zoning Code, the design of this project will be reviewed by the Design Commission. Although the project would not significantly impact a scenic vista, this regulatory procedure provides the City with an opportunity to incorporate additional conditions to increase the aesthetic value of the project.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? ( )

☐ ☐ ☒ ☐

WHY? The project is not located within the viewshed of an Official State Scenic Highway, Los Angeles County Scenic Highway, or local scenic highway. There are three small street trees located along the Fair Oaks Avenue frontage and no street trees located along the California Boulevard frontage. In accordance with the City Trees and Tree Protection Ordinance, if any street trees are removed during construction along Fair Oaks Avenue they would be replaced, and all street trees and street furnishings would be installed in accordance with South Fair Oaks Specific Plan guidelines and Public Works Department requirements. None of the trees to be removed are designated as landmark-eligible trees or important scenic resources. The site itself contains no rock outcroppings or other natural features recognized as having significant aesthetic value. In addition, the site does not contain structures that have been designated as historic resources and the structures on the site are not architecturally notable or considered scenic resources. The building has an attached "Monty's" neon sign projecting from the southwest corner that appears original to the building as well as an additional "Monty's" sign on the façade parapet. The projecting neon sign is listed as a "Historic Sign (HS)" on the City's List of Designated Historic Properties. The wall sign may meet the criteria for designation as a historic sign and will be evaluated for potential eligibility. In any event, neither sign is of a size or character that their removal would constitute substantial damage to scenic resources. Thus, project implementation would not substantially damage important scenic resources or other locally recognized desirable aesthetic natural features within the viewshed of a scenic highway and less than significant impacts would occur in this regard.

c. Substantially degrade the existing visual character or quality of the site and its surroundings? ( )

☐ ☐ ☒ ☐

WHY? The project site is currently improved with three aging, multi-use buildings and areas of surface parking. As a result, the existing visual quality of the site is low. The existing built environment surrounding the site to the north, east and south is typical of commercial areas in the City and lacks notable aesthetic characteristics (i.e., landscape, streetscape, unique architecture, etc.). To the west, the four-story Huntington Pavilion (medical office) is currently being constructed. The surrounding locale includes variable building heights ranging from one-to five stories (a five-story office building is located at the southwest corner of Congress Street and Fair Oaks Avenue). The proposed project would be within the height and mass limitations of the site's applicable zoning and land use designations. Development of the site with a new four-story, contemporary architectural office building would be compatible with surrounding land uses in terms of both height and massing. The inclusion of landscaped open space areas, particularly the plaza located at the corner of Fair Oaks Avenue and California Boulevard, would serve to activate pedestrian use at the corner while providing an inviting public plaza at the entry to the building. Overall, redevelopment of the site is expected to improve its visual quality and benefit the aesthetic character of the surrounding area. Thus, the project would not substantially degrade the existing visual character or quality of the site and its surroundings. Furthermore, as required by section 17.61.030 of the Pasadena Municipal Code, the design of the project would be reviewed for approval by the Design Commission. This regulatory procedure was established to ensure that the design, colors, and finish materials of development projects comply with adopted design guidelines and to achieve compatibility with the surrounding area.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? ( )

☐ ☐ ☒ ☐

WHY? As discussed in Response No. 3.a-b, the land uses immediately adjacent to the project site include various commercial/office buildings and associated surface parking areas. The project vicinity exhibits considerable ambient nighttime illumination levels due to the densely developed and commercial nature of the area. Artificial light sources from surface parking areas, buildings and other surrounding properties include interior and exterior lighting for security/safety, architectural highlighting, landscape lighting, and illuminated signage. Automobile headlights, streetlights and stoplights along the major and secondary surface streets surrounding the project also contribute to the high overall ambient lighting levels in the vicinity.

Similar to existing site and surrounding uses, the project would include low to moderate levels of interior and exterior lighting for security, parking, and architectural highlighting. Compliance with City and State energy conservation measures currently in place would limit unnecessary interior illumination during evening and nighttime hours. Soft accent lighting used for signage, and architectural highlighting would be directed to permit visibility of the highlighted elements but, would not be so bright as to cause light spillover. All proposed signage and outdoor lighting would be subject to applicable lighting regulations contained within the Municipal Code. Since the project replaces commercial uses with other commercial uses, nighttime illumination would not substantially increase over current levels with redevelopment of the site and the lighting characteristics of the proposed project would be similar to other commercial developments in the surrounding area of the City. Furthermore, no light-sensitive receptors (i.e., residential uses) are located adjacent to the site, therefore, no impacts to light sensitive receptors would occur. Thus, impacts regarding project lighting would be less than significant.

The building's exterior would include a combination of painted, expose concrete, large (colored) ceramic panels, and high-efficiency vision glass panels. The glass panels would have a low-reflectivity value to minimize off-site glare. Use of reflective materials would conform to Zoning Code requirements and to evaluations of exterior cladding and other building materials through the City's design review process. Overall, the project would not create a substantial new source of glare which would adversely affect day or nighttime views in the area and impacts would be less than significant.

The proposed office building would be up to four stories tall (or 45 feet) and would also include architectural features and screening that may go up to an additional 14 feet to provide building continuity, attractive design, and screening for mechanical equipment, all of which would be consistent with the maximum allowable 45-foot building height for the project site. The proposed building may cast shadows on adjacent commercial/industrial uses, however, as none of the adjacent uses are considered shade sensitive uses (i.e., residential uses and routinely used outdoor spaces), impacts related to shading would be less than significant.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

4. AGRICULTURAL RESOURCES.

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? ( )

☐ ☐ ☐ ☒

WHY? The City of Pasadena is a developed urban area surrounded by hillsides to the north and northwest. The City contains no prime farmland, unique farmland, or farmland of statewide importance, as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. Thus, no impacts regarding agricultural resources would occur.

b. Conflict with existing zoning for agricultural use, or a Williamson Act contract? ( )

☐ ☐ ☐ ☒

WHY? The City of Pasadena has no Williamson Act contract land and has no land zoned for agricultural use other than commercial nurseries being allowed by right in the CG (General Commercial) and IG (General Industrial) zones and conditionally in the CO (Office Commercial), CL (Limited Commercial), OS (Open Space) and PS (Public-Semi Public) Zoning Districts. Thus, the proposed project would not conflict with any agricultural zoning and would not preclude the use of commercial nurseries in any allowed zones. No impacts would occur in this regard.

c. Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? ( )

☐ ☐ ☐ ☒

WHY? There is no known farmland in the City of Pasadena. The project site is located in an urban area and is presently developed with commercial uses. Therefore the proposed project would not result in the conversion of farmland to a non-agricultural use.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

5. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a. Conflict with or obstruct implementation of the applicable air quality plan? ( )

☒ ☐ ☐ ☐

WHY? The project site is located within the 6,600 square mile South Coast Air Basin (Basin). The South Coast Air Quality Management District (SCAQMD) is required, pursuant to the Clean Air Act, to reduce emissions of criteria pollutants for which the Basin is in non-attainment (i.e., ozone, carbon monoxide, PM_{10}, and $PM_{2.5}$). The project would be subject to the SCAQMD's Air Quality Management Plan (AQMP). The AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. These strategies are developed, in part, based on regional population, housing, and employment projections prepared by the Southern California Association of Governments (SCAG).

The project would create a net increase in floor area, which could contribute to regional and local air emissions during construction and operation. Construction activities would produce emissions from construction equipment and fugitive dust. Project operations would increase the amount of traffic in the area and would consequently generate vehicle emissions that could affect implementation of the AQMP. As such, it is recommended that the project's consistency with the AQMP be addressed in an EIR.

Further, while not yet set forth in any applicable plan, the City is aware of the potential contribution to greenhouse gases that may arise from projects, and the rapidly evolving efforts at the state and local levels to meaningfully analyze and reduce greenhouse gases. The EIR for this project will include a greenhouse gas analysis that will be state-of-the-art when it is released for public comment. The fact that the project would be designed to qualify for a Leadership in Energy and Environmental Design (LEED) energy efficiency certification and to comply with the City Green Practices Ordinance (PMC 14.90) will be accounted for in the greenhouse gas analysis.

Potential project impacts with regard to the Los Angeles County Congestion Management Plan are addressed in Response No. 18.b, below.

b. Violate any air quality standard or contribute to an existing or projected air quality violation? ( )

☒ ☐ ☐ ☐

WHY? As discussed in Response No. 5.a, the project site is located within the Basin, which is characterized by relatively poor air quality. State and Federal air quality standards are often exceeded in many parts of the Basin, with Los Angeles County among the highest of the counties that compose the Basin in terms of non-attainment of the standards. Implementation of the proposed project would increase emissions on both a short term (i.e., during construction) and long-term basis in a non-attainment area. Short-term construction emissions would result from a number of sources, including but not limited to, the operation of heavy-duty construction equipment and on-site excavation. Long-

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

term emissions would result from motor vehicles traveling to and from the site once the project is fully operational and from stationary sources using natural gas and electricity. As the project could result in increased air emissions associated with construction and operation, it is recommended that this issue be analyzed further in an EIR.

c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? ( )

☒	☐	☐	☐

WHY? Since the project would result in increases in air emissions from construction and operations (e.g., vehicle trips and stationary sources) in the Basin, which is currently in non-attainment of Federal and State air quality standards for ozone, carbon monoxide, PM_{10} and $PM_{2.5}$, it is recommended that this issue be analyzed further in an EIR. Further, as discussed above, the EIR for this project will include a greenhouse gas analysis that will be state-of-the-art when it is released for public comment

d. Expose sensitive receptors to substantial pollutant concentrations? ( )

☒	☐	☐	☐

WHY? Construction activities and operation of the proposed use would increase air emissions above current levels, thereby potentially affecting nearby sensitive receptors. Land uses that are generally considered more sensitive to air pollution than others are as follows: hospitals, schools, residences, playgrounds, child care centers, athletic facilities, and retirement/convalescent homes. The closest sensitive receptor to the project site is the Huntington Memorial Hospital located west of the project across Fair Oaks Avenue. In addition to the hospital, a new medical office building is presently under construction along Fair Oaks Avenue to the west of the site. Construction and operation of the project could increase air emissions that could impact nearby sensitive receptors. Therefore, it is recommended that this issue be analyzed further in an EIR

e. Create objectionable odors affecting a substantial number of people? ( )

☐	☐	☐	☒

WHY? Potential sources that may emit odors during construction activities include the use of architectural coatings and solvents. SCAQMD Rule 1113 limits the amount of volatile organic compounds from architectural coatings and solvents. Therefore, via mandatory compliance with SCAQMD Rule 1113, construction activities or materials would not create objectionable odors.

According to the SCAQMD CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. As the project involves the development of an office building and has no elements known to generate odor complaints, no impacts are expected to occur.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

6. BIOLOGICAL RESOURCES.

Would the project:

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? ( )

☐ ☐ ☐ ☒

WHY? The subject site is in a fully developed urban area, identified as the South Fair Oaks Specific Plan area. The project site has no landscaping or habitat subject to review by the Department of Fish and Game or U.S. Fish and Wildlife Service. Construction of an office building in this location would not affect any special status species identified in local or regional plans, regulations, or policies. No impacts would occur in this regard.

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? ( )

☐ ☐ ☐ ☒

WHY? The subject site is fully improved with urbanized uses and no riparian or other sensitive natural community exists on the project site or in the immediate vicinity. Thus, the project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community. No impacts would occur in this regard.

c. Have a substantial adverse effect of federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? ( )

☐ ☐ ☐ ☒

WHY? The subject site is located in an urbanized area and is currently improved with three multi-use buildings and associated paved surface parking lots. No waterbodies or federally protected wetlands exist on the site or adjacent properties. The project would not have an adverse effect on federally protected wetlands, as defined in Section 404 of the Clean Water Act. Thus, no impacts would occur in this regard.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? ( )

☐ ☐ ☐ ☒

WHY? The subject site is entirely developed with three multi-use buildings and associated paved surface parking lots. Surrounding land uses of the site include commercial, industrial and office uses. No wildlife corridors or native wildlife nursery sites are present on or adjacent to the site. Furthermore, due to the urbanized nature of the project area, the potential for native resident or migratory wildlife species movement through the site is very low. The project would not interfere with the movement of native resident or migratory fish or wildlife species or use of a wildlife nursery site. No impacts would occur in this regard.

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? ( )

☐ ☐ ☐ ☒

WHY? Vegetation on the site is limited to small areas of ornamental landscaping and along the perimeter of the site there are three small street trees on the Fair Oaks Avenue frontage. In accordance with the City Trees and Tree Protection Ordinance, if any street trees are removed during construction along Fair Oaks Avenue they would be replaced, and all street trees would be installed in accordance with South Fair Oaks Specific Plan guidelines and Public Works Department requirements. None of the trees are designated as landmark-eligible trees. Therefore, the proposed project would not conflict with any local policies or ordinances protecting biological resources, and no impacts would occur.

f. Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan? ( )

☐ ☐ ☐ ☒

WHY? There are no adopted Habitat Conservation or Natural Community Conservation Plans within the City of Pasadena or in the vicinity of the project site. There are also no approved local, regional or state habitat conservation plans that address the City or project area. Therefore, no impacts associated with conflicts with such plans would occur.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

7. CULTURAL RESOURCES.

Would the project:

a. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5? ( )

☒ ☐ ☐ ☐

WHY? The three buildings on the project site that are proposed for demolition are not on the City's List of Designated Historic Properties.[1] The 2,720 square foot building occupied by the Grandview Palace Restaurant and a massage therapy center and the 3,390 square foot building occupied by M&G Auto Body do not include significant architectural merits, were not designed by known architects, and are not associated with persons or events of significance. Therefore, these buildings proposed for demolition are not considered eligible for consideration as local landmarks.

The 6,525 square foot building occupied by Monty's Steakhouse Restaurant, is a mid-twentieth-century commercial building constructed about 1953-1955. The building has an attached "Monty's" neon sign projecting from the southwest corner that appears original to the building as well as an additional "Monty's" sign on the façade parapet. The projecting neon sign is listed as a "Historic Sign (HS)" on the City's List of Designated Historic Properties. The wall sign may meet the criteria for designation as a historic sign and will be evaluated for potential eligibility. The Monty's building would be demolished and signs removed as a result of the proposed project. Review of the Los Angeles County Assessor's property records for the 612 S. Fair Oaks Avenue parcel indicates the building meets the 50-year age consideration of the National Register and the 45-year age guideline of the California Register. Although preliminary research suggests that the buildings on the site do not qualify as historical resources, further evaluation of this issue will be presented in an EIR along with an evaluation of potentially significant impacts to the historic Monty's Sign.

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? ( )

☒ ☐ ☐ ☐

WHY? There are no known prehistoric or historic archeological sites on the project site, which is fully developed and has been subject to disturbance from construction activities over time. Additionally, the City's General Plan EIR identified that infill development in already developed areas is not anticipated to result in the uncovering of additional resources. Nonetheless, during grading, excavation or construction of the project it is possible that currently unknown prehistoric or historic archaeological resources could be encountered. Therefore, the sensitivity of the site for encountering such resources and the potential need for mitigation will be analyzed further in an EIR.

[1] http://cityofpasadena.net/planning/deptorg/dhp/pdfs/CombinedDesignations.pdf.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? ( )

☒ ☐ ☐ ☐

WHY? The project site lies on the valley floor in an urbanized portion of the City of Pasadena. This portion of the City has not been identified as having high paleontologic sensitivity, however, vertebrate fossils of Ice Age terrestrial animals have been found in these areas. Given the depth of excavation on the site, the potential for encountering paleontologic resources and the need for mitigation measures will be analyzed further in an EIR.

d. Disturb any human remains, including those interred outside of formal ceremonies? ( )

☐ ☐ ☐ ☒

WHY? There are no known human remains on the site. The project site is not part of a formal cemetery and is not known to have been used for disposal of historic or prehistoric human remains. Thus, human remains are not expected to be encountered during construction of the proposed project. In the unlikely event that human remains are encountered during project construction, State Health and Safety Code Section 7050.5 requires the project to halt until the County Coroner has made the necessary findings as to the origin and disposition of the remains pursuant to Public Resources Code Section 5097.98. Compliance with these regulations would ensure the proposed project would not result in significant impacts due to disturbing human remains.

8. ENERGY.

Would the proposal:

a. Conflict with adopted energy conservation plans? ( )

☐ ☐ ☐ ☒

WHY? The project does not conflict with the 1983 adopted Energy Element of the General Plan. The proposed intensity of the project is within the intensity allowed by the Zoning Code and envisioned in the City's approved General Plan. Further the project will comply with the energy standards in the California Energy Code, Part 6 of the California Building Standards Code (Title 24). Measures to meet these performance standards may include high-efficiency Heating Ventilation and Air Conditioning (HVAC) and hot water storage tank equipment, lighting conservation features, higher than required rated insulation and double-glazed windows. Furthermore, the project would be designed to qualify for a Leadership in Energy and Environmental Design (LEED) energy efficiency certification and to comply with the City Green Practices Ordinance (PMC 14.90). Thus, no impacts would occur in this regard.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

b. Use non-renewable resources in a wasteful and inefficient manner? ( )

☐ ☐ ☒ ☐

WHY? (Oil-based products) The proposed project would not create a high enough demand for energy to require development of new energy sources. Construction of the project would result in a short-term less than significant consumption of oil-based energy products. However, the additional amount of resources used would not cause a significant reduction in available supplies.

The site is also located within a transit oriented development (TOD) area. As such, the project is required to meet the TOD standards in Section 17.50.340 of the Municipal Code which encourage the use of transit and walking through building design standards and reduced parking requirements. In response to the TOD requirements, the project is proposing to replace the site's automobile intense uses, which consist of an auto-body repair shop, restaurants and a massage parlor with a LEED certified office building. The project site is located in a transit rich area, with close access to the Gold Line and Bus Lines 20, 51 and 70. To encourage the use of pedestrian activity and thereby enhance transit usage, the project is proposing a public plaza, which would feature landscaping and seating amenities for pedestrians. In addition, bicycle racks would be provided at the entry level to the new office building and landscaping would be provided throughout the site to encourage pedestrian activity. Further, parking would be provided in accordance with the Municipal Code requirements for transit-oriented development, as discussed above. Therefore, the project's responsiveness to the TOD requirements would reduce impacts regarding the consumption of gasoline to a less than significant level.

(Energy) The long-term impact from increased energy use by this project is not significant in relationship to the number of customers currently served by the electrical and gas utility companies. Supplies are available from existing mains, lines and substations in the area. Occupation of the project would result in a less than significant increase in the consumption of natural gas. This consumption would be reduced through adherence to the performance standards of California Energy Code, Part 6 of the California Building Standards Code Title 24. The project is estimated to increase consumption by 2,775 net kilowatt-hours of electrical energy per day, as shown in Table 1.

Table1
Electricity Usage Summary

Land Use	Unit Type	Usage Rate	Usage
Existing Conditions			
2,720 sf (restaurant and massage)	kw/sf/yr	47.45	129,064 kw/yr
6,525 (restaurant – Monty's)	kw/sf/yr	47.45	309,611 kw/yr
3,390 (auto body shop)	kw/sf/yr	10.50	35,595 kw/yr
Project Conditions			
113,200 sf (office)	kw/sf/yr	12.95	1,465,940 kw/yr
Net Increase with Project			**991,670 kw/yr or 2,717 kw/day**

Notes:
[a] kw/sf/yr = kilowatt-hour/square foot/year

Source: 1993 CEQA Air Quality Handbook, prepared by the South Coast Air Quality Management District.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

This increase in electricity consumption would be reduced to a less than significant level by meeting the above referenced energy standards. Measures to meet these performance standards may include high efficiency Heating Ventilation and Air Conditioning (HVAC) and hot water storage tank equipment, lighting conservation features, higher than required rated insulation and double-glazed windows. The energy conservation measures would be shown on a building plan(s). This plan would be submitted to the Water and Power Department and Building Official for review and approval prior to the issuance of a building permit.

Installation of energy-saving features would be inspected by a Building Inspector prior to issuance of a Certificate of Occupancy.

(Water) The proposed use would include modern plumbing fixtures and be required to comply with the City's Green Building Ordinance. As such, the project would not use water in a wasteful or inefficient manner.

9. GEOLOGY AND SOILS.

Would the project:

a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. ( )

☐ ☐ ☐ ☒

WHY? According to the 2002 adopted Safety Element of the City of Pasadena's General Plan, the project site is within the vicinity of several active faults including the Raymond Fault, Sierra Madre Fault Zone, Verdugo Fault, Hollywood Fault, Newport-Inglewood Fault, and Santa Monica Fault, located approximately 1.4 miles south, 4 miles northeast, 5.5 miles northwest, 6 miles southwest, 15 miles southwest, and 16 miles west-southwest of the site, respectively. The San Andreas Fault, a "master" active fault, is located approximately 25 miles northeast of the site and controls seismic hazard in Southern California.

While the Puente Hills Blind Thrust is located directly below the project site, the fault does not extend to the ground surface and would not be considered a surface fault rupture hazard. Based on the available geologic data, no known faults with the potential for surface fault rupture are located directly below or project toward the site. As such, no direct impacts regarding fault rupture would occur.

ii) Strong seismic ground shaking? ( )

☐ ☐ ☒ ☐

WHY? The site is located in a seismically active area that would be subject to seismic ground shaking, similar to most of Southern California. Since the City of Pasadena is traversed by several active fault

systems including the San Andreas and Newport-Inglewood Faults, any major earthquake along these systems would cause seismic ground shaking. Much of the City is developed on sandy, stony or gravelly loam formed on the alluvial fan adjacent to the San Gabriel Mountains. This soil is more porous and loosely compacted than bedrock, and thus subject to greater impacts from seismic ground shaking than bedrock.

At a minimum, the earthquake resistant design and materials utilized in new projects must meet or exceed the current seismic engineering standards of the California Uniform Building Code Seismic Zone 4 requirements. The applicant for the project is required to submit a soils report to the Building Division for review and approval. The applicant must also submit project plans for review and approval, showing compliance with seismic engineering standards, including a grading plan, prior to beginning of construction. Through conformance with these standards and requirements, impacts would be less than significant.

iii) Seismic-related ground failure, including liquefaction as delineated on the most recent Seismic Hazards Zones Map issued by the State Geologist for the area or based on other substantial evidence of known areas of liquefaction? ( )

☐ ☐ ☒ ☐

WHY? Liquefaction generally occurs in saturated, loose to medium dense, granular soils and in saturated, soft to moderately firm silts whereby the space between individual particles are completely filled with water due to strong seismic shaking. As identified by the recent Seismic Hazard Zone maps published by the California Geological Society (CGS), the project site is not within a Liquefaction Hazard Zone.[2] The historical high groundwater level in the vicinity of the site is at a depth greater than 65 feet below ground surface (bgs). Borings conducted on the site did not encounter groundwater until a depth of 76 feet BGS.[3] Due to the low groundwater level and the generally dense to very dense, Pleistocene age granular deposits encountered below the project site, the potential for soil liquefaction at the site is considered to be very low. Therefore, impacts regarding liquefaction would be less than significant.

iv) Landslides as delineated on the most recent Seismic Hazards Zones Map issued by the State Geologist for the area or based on other substantial evidence of known areas of landslides? ( )

☐ ☐ ☐ ☒

WHY? The project site and surrounding areas contain flat topography. The project site is not within a Landslide Hazard Zone as shown on Plate P-1 of the 2002 Safety Element of the General Plan. This Plate was developed considering the Earthquake-Induced Landslide areas as shown on the State of California Seismic Hazard Zone maps for the City. Therefore, the project would have no impacts from seismic induced landslides.

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[2] *Source: Report of Geotechnical Engineering Services for the Proposed California and Fair Oaks Office Building, dated July 28, 2008, prepared by GeoDesign, Inc.*

[3] Ibid.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

b. Result in substantial soil erosion or the loss of topsoil? ( )

☐ ☐ ☒ ☐

WHY? Excavation and Grading. Construction of the project would require exporting approximately 36,560 cubic yards of soil. There are no plans for use of imported fill. The displacement of soil through cut and fill would be controlled by the City's grading ordinance, Chapter 33 of the 2001 California Building Code relating to grading and excavation, other applicable building regulations and standard construction techniques. In addition, the project would implement the design recommendations in the geotechnical evaluation prepared specific for the project site, which would be reviewed and approved by the City's Building Division. The existing building regulations and property site inspections would ensure that construction activities do not create unstable earth conditions.

Erosion. According to the Final Environmental Impact Report certified for the adoption of the 1994 Land Use and Mobility Elements, the natural water erosion potential of soils in Pasadena is low, unless these soils are disturbed during the wet season. Both the Ramona and Hanford soils associations, which underlay much of the City, have high permeability, low surface runoff and slight erosion hazard due to the gravelly surface layer and low topographic relief away from the steeper foothill areas of the San Gabriel Mountains.

Water erosion during construction would be minimized by limiting construction to dry weather, covering exposed excavated dirt during periods of rain and protecting excavated areas from flooding with temporary berms.

Soil erosion after construction would be controlled by implementation of an approved landscape and irrigation plan. This plan would be submitted to the Planning and Development Department for review and approval prior to the issuance of a building permit.

Construction may temporarily expose the soil to wind and/or water erosion. Erosion caused by strong wind, excavation and earth moving operations would be minimized by watering during construction and by covering earth to be transported in trucks to or from the site, in compliance with SCAQMD District Rule 403.

As the project would involve more than 250 cubic yards of cut or fill, it would be required by the City to prepare an erosion and sediment transport control plan as part of the applicant's grading plan. The grading plan would be approved by the Building Official and the Public Works Department prior to the issuance of any building permits.

As the project would not be subject to the Hillside Grading Ordinance, the erosion and sediment control plan would include measures such as the following:

- Confine construction to the dry season (April 16th to October 14th), whenever possible;
- If construction needs to be scheduled for the wet season (October 15th to April 15th of the following year), ensure that structural erosion and sediment transport control measures are ready for implementation prior to the onset of the first major storm of the season:
- Keep slope lengths and gradients to a minimum;

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

- Keep disturbed areas to the minimum necessary for construction;
- Keep runoff away from disturbed areas during construction;
- Stabilize disturbed areas as quickly as possible, either by vegetative or mechanical methods;
- Trap sediment before it leaves the site with such techniques as check dams, sediment ponds, or siltation fences;
- Control landscaping activities carefully with regard to the application of fertilizers, pesticides or other hazardous substances.
- Provide proper instruction to all landscaping personnel on the construction team.

Compliance with the applicable local regulations regarding dust control and erosion would ensure that impacts regarding soil erosion or the loss of topsoil are less than significant.

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? ( )

☐ ☐ ☒ ☐

WHY? The City of Pasadena rests primarily on an alluvial plain. To the north the San Gabriel Mountains are relatively new in geological time. These mountains run generally east-west and have the San Andreas Fault on the north and the Sierra Madre Fault to the south. The action of these two faults in conjunction with the north-south compression of the San Andreas tectonic plate is pushing up the San Gabriel Mountains. This uplifting combined with erosion has helped form the alluvial plain. As shown on Plate 2-4 of the Technical Background Report to the 2002 Safety Element, the majority of the City lies on the flat portion of the alluvial fan, which is expected to be stable.

According to the Seismic Hazards Map, Plate 1-3 and Slope Instability Map, Plate 2-4 of the adopted 2002 Safety Element of the General Plan, the project is not in an area subject to liquefaction or earthquake-induced landslides. The Seismic Hazard map does not show this project to be in an area where there is geologic evidence of past landslides. In addition, the geotechnical investigation for the project site concludes that the site is generally free from geologic hazards.[4] Furthermore, modern engineering practices and compliance with established building standards, including the California Building Code, would ensure that the project would cause less than significant impacts regarding geologic units or soils.

As the applicant would be required to submit soils reports for review and approval by the Building and Safety Division, impacts would be less than significant.

[4] Ibid.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? ( )

☐ ☐ ☒ ☐

WHY? According to the 2002 adopted Safety Element of the City's General Plan the project site is underlain by alluvial material from the San Gabriel Mountains. Soil borings conducted as part of the geotechnical investigation revealed the presence of fill materials near the surface, below which are native soils consisting of increasingly dense, very stiff silt and fine to medium sand with some gravel. These soils are expected to have a low to moderate soil expansion potential. Soils with expansive characteristics that could create risks to life or property would be removed and/or replaced as part of standard construction practices pursuant to the City of Pasadena and/or California UBC building requirements. Therefore, project implementation would result in less than significant impacts associated with expansive soils, and substantial risks to life or property would not occur.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? ( )

☐ ☐ ☐ ☒

WHY? The project would be required to connect to the existing sewer system. Therefore, soil suitability for septic tanks or alternative wastewater disposal systems is not applicable in this case, and the proposed project would have no associated impacts.

10. HAZARDS AND HAZARDOUS MATERIALS.

Would the project:

a. Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials? ( )

☒ ☐ ☐ ☐

WHY? The project would involve the development of office uses on a previously improved site. The project would generally involve limited amounts of hazardous materials, such as household solvents and cleaners, automotive fluids and chemicals and fertilizers used in landscaping. These materials are not anticipated to be used in substantial quantities that would result in a significant hazard to the public. The proposed office uses would involve lower quantities of hazardous materials when compared to the existing on-site uses, which include an auto body shop, to be used, stored, or transported in the vicinity of the project area in a manner similar to other office uses in the surrounding area. The use, transport, and disposal of these materials would be subject to local, State, and Federal regulations. Compliance with these regulations would ensure that the project does not create a significant hazard to the public or the environment as a result of the routine transport, use or disposal of hazardous materials during project operations.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

A Phase I and Limited Phase II Environmental Site Assessment (ESA) have been prepared by Carlin Environmental Consulting, Inc. to evaluate the presence of known or suspected hazardous materials or wastes on the project site. According to the ESA, the site has been developed with a mix of uses, including an existing auto body shop and former junk yard and plumbing storage yard, that have utilized and/or stored hazardous materials. In addition, due to the nature of the previous on-site uses, there is the potential for buried structures to be encountered during excavation and grading of the site. Although no documentary or surficial evidence suggest that aboveground storage tanks (ASTs) or underground storage tanks (USTs) are located on the site, a preliminary subsurface investigation revealed that some detectable concentrations of Total Petroleum Hydrocarbon (TPH) were discovered through a boring on the southwestern portion of the site. In addition, according to a limited survey report prepared by GeoDesgin Inc., both asbestos-containing materials (ACM) and/or lead-based paint (LBP) occur within the building materials of the commercial buildings along the western portion of the site.

Due to the identified and potential hazardous materials on the project site, it is recommended that further evaluation of hazards to the public or the environment be included in the EIR analysis. The results and recommendations presented in the Phase I and Limited II ESA, as well as within the asbestos and LBP surveys, will be included in the EIR.

b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? ( )

☒ ☐ ☐ ☐

WHY? As discussed in Response No. 10.a, portions of the project site have actively and historically been used for automotive and other uses that potentially utilized and/or stored hazardous materials. Specifically, the auto body shop includes the use of gasoline and other oil products. According to a Phase I and Limited Phase II ESA and an asbestos/LBP survey conducted on the premises, the site has demonstrated the presence of soil contamination from past development/redevelopment activities, as well as the presence of asbestos and LBP materials within the existing on-site structures. As demolition, grading and other construction related activities have the potential to unearth and release unknown hazardous materials and/or waste, the results of the hazardous materials investigations and the project's potential for impacts due to the release potential hazardous materials will be detailed in an EIR.

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? ( )

☒ ☐ ☐ ☐

WHY? The project site is located approximately 0.29 mile from Waverly School at 67 West Bellevue Drive, a private school with combined K-12 grade levels. Other nearby schools include the Sequoyah School (K-8) at 535 South Pasadena Avenue and Blair High School at 1201 South Marengo Avenue, located approximately 0.31 and one mile, respectively, from the project site. Operation of the project would not involve the emission of hazardous materials or handling of hazardous or acutely hazardous materials, substances, or waste. During construction of the project, there is the potential for

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

contaminants to be removed from the site, based on the findings of the hazardous materials investigations, as discussed in Response Nos. a-b. It is anticipated that if soil contaminates or other hazardous materials were to be removed, such activities would occur in compliance with all applicable local, State and/or Federal handling procedures. Nevertheless, potential impacts resulting from the handling of hazardous materials will be addressed in an EIR.

d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? ( )

☐ ☐ ☐ ☒

WHY? The Phase I Limited Phase II ESA prepared for the project site included a search of Federal, State of California, and local environmental databases prepared by Environmental Data Resources, Inc. (EDR). The records search revealed that two addresses on the project site are listed in EDR's proprietary Historical Cleaners Database. However, these sites are not considered hazardous materials sites pursuant to Government Code Section 65962.5. Furthermore, these previous on-site uses were limited to laundry facilities and did not include dry cleaning operations, which are typically the primary concern regarding hazardous materials in cleaning facilities. In addition, as part of the local agency records search, the Pasadena Fire Department provided a records of current and past of on-site uses that involved the handling and/or use of hazardous materials on various properties within the site. The records provided by the Fire Department are indicative of hazardous materials sites pursuant to Government Code Section 65962.5.

As discussed in Response Nos. 10-a-c, above, and indicated by the records search conducted by EDR, there is the potential for contamination on the project site due to past and/or current uses (i.e., auto body shop), including potential hazards associated with gasoline and other oil products. While it acknowledged that potentially significant hazardous materials impacts could occur on the project site, the records search conducted for the project site revealed that that the project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Thus, there is no potential for the project to result in hazards to the public or the environment in this regard.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? ( )

☐ ☐ ☐ ☒

WHY? The project site is not within an airport land use plan or within two miles of a public airport or public use airport. The nearest public use airport is the Bob Hope Airport in Burbank, located approximately 15 miles west of the project site. Therefore, no impact would occur in this regard.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? ( )

☐ ☐ ☐ ☒

WHY? The project site is not within the vicinity of a private airstrip. There are no private airstrips in Pasadena. Thus, no impact would occur in this regard.

g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? ( )

☐ ☐ ☐ ☒

WHY? The project site is located in an area where adequate circulation and access is provided to facilitate emergency response. The City of Pasadena maintains a citywide emergency response plan, which goes into effect at the onset of a major disaster (e.g. a major earthquake). In the event of a disaster, the Fire Department is responsible for implementing the plan, and the Pasadena Police Department devises evacuation routes based on the specific circumstance of the emergency.

The City has pre-planned evacuation routes for dam inundation areas associated with Devil's Gate Dam, Eaton Wash, and the Jones Reservoir. According to the Technical Background Report of the adopted 2002 Safety Element of the General Plan (Plate 3-1), the project site is not within any of these dam inundation areas.

The proposed building configuration would comply with applicable fire codes, including proper emergency exits for patrons and residents. Construction activities would generally be confined to the site and would be subjected to emergency access standards and requirements of the City of Pasadena Fire Department to ensure traffic safety. As such, implementation of the proposed project would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. Thus, no impact would occur in this regard.

h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? ( )

☐ ☐ ☐ ☒

WHY? The project site and surrounding area consists of urbanized development. No wildland features are located on-site or within the local project vicinity. Furthermore, according to the Technical Background Report of the adopted 2002 Safety Element of the General Plan as shown on Plate 4-2, Wildfire Hazard Map, the project site is in an area of low fire hazard. Thus, no impacts would occur in this regard.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

11. HYDROLOGY AND WATER QUALITY.

Would the project:

a. Violate any water quality standards or waste discharge requirements? ( )

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WHY? Section 303 of the federal Clean Water Act requires states to develop water quality standards to protect the beneficial uses of receiving waters. In accordance with California's Porter/Cologne Act, the Regional Water Quality Control Boards (RWQCBs) of the State Water Resources Control Board (SWRCB) are required to develop water quality objectives that ensure their region meets the requirements of Section 303 of the Clean Water Act.

Pasadena is within the greater Los Angeles River watershed and, thus, within the jurisdiction of the Los Angeles RWQCB. The Los Angeles RWQCB adopted water quality objectives in its Stormwater Quality Management Plan (SQMP). This SQMP is designed to ensure stormwater achieves compliance with receiving water limitations. Thus, stormwater generated by a development that complies with the SQMP does not exceed the limitations of receiving waters, and thus does not exceed water quality standards.

Compliance with the SQMP is ensured by Section 402 of the Clean Water Act, which is known as the National Pollution Discharge Elimination System (NPDES). Under this section, municipalities are required to obtain permits for the water pollution generated by stormwater in their jurisdiction. These permits are known as Municipal Separate Storm Sewer Systems (MS4) permits. Los Angeles County and 85 incorporated Cities therein, including the City of Pasadena, obtained an MS4 (Permit # 01-182) from the Los Angeles RWQCB, most recently in 2001. Under this MS4, each permitted municipality is required to implement the SQMP.

In accordance with the County-wide MS4 permit, all new developments must comply with the SQMP. In addition, as required by the MS4 permit, the City of Pasadena has adopted a Standard Urban Stormwater Mitigation Plan (SUSMP) ordinance to ensure new developments comply with SQMP. This ordinance requires most new developments to submit a plan to the City that demonstrates how the project will comply with the City's SUSMP. In accordance with SUSMP requirements, the project must implement appropriate Best Management Practices (BMPs) to ensure that the first ¾-inch of stormwater be cleansed prior to discharge into the municipal storm drain system. Specifically, operational BMPs to be implemented may include screened or walled trash container areas, stenciling of on-site storm drain inlets, covered and properly drained loading areas, and infiltration and treatment systems in paved areas to prevent pollutant runoff.

The project consists of developing 113,200 gross square feet of office uses. None of the proposed uses are point source generators of water pollutants, and thus, no quantifiable water quality standards apply to the project. As an urban development, the proposed project would add typical, urban, nonpoint-source pollutants to storm water runoff. As discussed, these pollutants are permitted by the County-wide MS4 permit, and would not exceed any receiving water limitations. In addition, since the proposed development meets the City's SUSMP requirement thresholds, the applicant is required to submit and implement a SUSMP compliance plan. Furthermore, by removing the existing aging structures and surface parking lots from the project and replacing them with the proposed office

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

building and enclosed parking garage that would include storm water BMPs, storm water runoff water quality would improve with the project when compared to existing conditions. Overall, compliance with the applicable regulatory requirements cited above would ensure that the proposed project would not violate any water quality standards or waste discharge requirements, and would have less than significant impacts.

b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? ( )

☐ ☐ ☒ ☐

WHY? The project would not install any groundwater wells, and would not otherwise directly withdraw any groundwater. In addition, there are no known aquifer conditions at the project site or in the surrounding area, which could be intercepted by excavation or development of the project. The project involves excavation for two levels of subterranean parking. The depth of excavation would be approximately 40 feet. Since the groundwater beneath the project site is anticipated to be greater than approximately 65 feet bgs, dewatering during construction of the site is not anticipated to occur. As the project would result in impervious surfaces similar to the amount of development that currently exists on the site, the amount of groundwater recharge in the area would not substantially change from past urban uses on the site. Therefore, the proposed project would not physically interfere with any groundwater supplies.

The project would use the existing water supply system provided by the Pasadena Department of Water and Power. The source of some of this water supply is ground water, stored in the Raymond Basin. Thus, the project could indirectly withdraw groundwater. As discussed in Response No. 19.a, below, the project would consume approximately 22,640 gallons per day of water. The current on-site uses consume approximately 12,715 gallons of water per day. The net gain in water consumption would be 9,925 gallons of water per day on the project site. However, the proposed water usage would be negligible in comparison to the overall water service provided by the Department of Water and Power. This minor amount of water use would result in less than significant impacts from depletion of groundwater supplies.

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on-or off-site? ( )

☐ ☐ ☐ ☒

WHY? The project site is currently developed with impermeable surfaces, with the exception of limited landscaped areas and runoff onsite drains to California Boulevard and Fair Oaks Avenue into the City's storm drain system. The project site does not contain any discernable streams, rivers, or other drainage features. Development of the site would involve minor grading, but will not substantially alter the drainage pattern of the site or surrounding area given that the amount of impermeable surface would

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

remain similar to existing conditions and runoff would continue to flow into the City's storm drain system.

The drainage of surface water from the project would be controlled by building regulations and directed towards the City's existing streets, flood control channels, storm drains and catch basins similar to existing conditions. Prior to the issuance of a building permit, the applicant is required to submit a site drainage plan to the Building Division and the Public Works Department for review and approval. This required approval ensures that the proposed drainage plan is appropriately designed and that the proposed runoff does not exceed the capacity of the City's storm drain system. The proposed drainage of the site would not channel runoff on exposed soil, would not direct flows over unvegetated soils, and would not otherwise increase the erosion or siltation potential of the site or any downstream areas. Therefore, the proposed project would not result in significant erosion or siltation impacts from changes to drainage patterns.

Although the project could change the site's drainage pattern, the project would not result in substantial erosion or siltation. As discussed above, the project is subject to NPDES requirements, including the County-wide MS4 permit and the City's SUSMP ordinance. In accordance with these requirements, the applicant is required to submit a plan to the City that demonstrates how the project will comply with the City's SUSMP. To comply with the SUSMP, the project must implement BMPs that reduce water quality impacts, including erosion and siltation, to the maximum extent practicable. Complying with the City's SUSMP and implementing the required BMPs would ensure that the proposed project would not result in significant erosion or siltation impacts due to changes to drainage patterns.

d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site? ( )

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WHY? As discussed above, the project would involve only minor changes in the site's drainage patterns and does not involve altering a discernable drainage course. The proposed minor changes to the site's drainage patterns are not expected to cause flooding. Regardless, the project's potential to cause flooding would be eliminated through the required compliance with the City's SUSMP ordinance. This ordinance requires post-development peak storm water runoff rates to not exceed pre-development peak storm water runoff rates. Compliance with this SUSMP requirement would be ensured through the City's drainage plan review and approval process.

Since the project does not involve alteration of a discernable watercourse and post-development runoff discharge rates are required to not exceed pre-development rates, the proposed project does not have the potential to alter drainage patterns or increase runoff that would result in flooding. Therefore, the proposed project would not cause flooding and would have no impact in this regard.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

e. Create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? ( )

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WHY? As discussed in Response 11.c, the project would not substantially change the amount of impervious surface area on site and, thus, would not result in substantial increases in surface water runoff quantities. Additionally, with implementation of the project, overall existing drainage patterns would be maintained, and the project would include appropriate on site drainage improvements to convey anticipated stormwater flows. In addition, as discussed above in Responses 11.c and 11.d, compliance with the City's SUSMP ordinance would ensure that post-development peak storm water runoff rates to not exceed pre-development peak storm water runoff rates. Thus, project implementation would not result in a substantial increase in the rate or amount of surface water runoff that would result in flooding on- or off-site. No impacts associated with alterations to existing drainage patterns would occur.

As discussed above in Responses 11.a and 11.c, the project would generate only typical, non-point source, urban stormwater pollutants. These pollutants are covered by the Countywide MS4 permit, and the project, through the City's SUSMP ordinance, is required to implement BMPs to reduce stormwater pollutants to the maximum extent practicable. Therefore, the proposed project would not create runoff that would exceed the capacity of the storm drain system and would not provide a substantial additional source of polluted runoff. There would be no impact in this regard.

f. Otherwise substantially degrade water quality? ( )

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WHY? As discussed in Response 11.a, the project would not be a point-source generator of water pollutants. The only long-term water pollutants expected to be generated onsite are typical urban stormwater pollutants. Compliance with the City's SUSMP ordinance would ensure that these stormwater pollutants would not substantially degrade water quality. The project, however, also has the potential to generate short-term water pollutants during construction, including sediment, trash, construction materials, and equipment fluids. The County-wide MS4 permit requires construction sites to implement BMPs to reduce the potential for construction-induced water pollutant impacts. These BMPs include methods to prevent contaminated construction site stormwater from entering the drainage system and preventing construction-induced contaminates from entering the drainage system. The MS4 identifies the following minimum requirements for construction sites in Los Angeles County:

1 Sediments generated on the project site shall be retained using adequate Treatment Control or Structural BMPs;

2 Construction-related materials, wastes, spills or residues shall be retained at the project site to avoid discharge to streets, drainage facilities, receiving waters, or adjacent properties by wind or runoff;

3 Non-storm water runoff from equipment and vehicle washing and any other activity shall be contained at the project site; and

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

4 Erosion from slopes and channels shall be controlled by implementing an effective combination of BMPs (as approved in Regional Board Resolution No. 99-03), such as the limiting of grading scheduled during the wet season; inspecting graded areas during rain events; planting and maintenance of vegetation on slopes; and covering erosion susceptible slopes.

In addition, projects with a construction site of one acre or greater are subject to additional stormwater pollution requirements during construction. The State Water Resources Control Board (SWRCB) maintains a statewide NPDES permit for all construction activities within California that result in one (1) or more acres of land disturbance. This permit is known as the State's General Construction Activity Storm Water Permit or the State's General NPDES Permit. The proposed project site 0.97 acres, however, despite being less than one-acre, the City may require the project to submit to the SWRCB a Notice of Intent (NOI) to comply with the State's General Construction Activity Storm Water Permit. This NOI must include a Storm Water Pollution Prevention Plan (SWPPP) that outlines the BMPs that would be incorporated during construction. These BMPs would minimize construction-induced water pollutants by controlling erosion and sediment, establishing waste handling/disposal requirements, and providing non-storm water management procedures. Compliance with the applicable regulatory requirements would ensure that construction of the proposed project would result in less than significant water quality impacts.

g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or dam inundation area as shown in the City of Pasadena adopted Safety Element of the General Plan or other flood or inundation delineation map? ( )

☐ ☐ ☐ ☒

WHY? The project includes no housing. In addition, according to the Dam Failure Inundation Map, Plate 3-1, of the adopted 2002 Safety Element of the City's adopted General Plan, the project is not located in a dam inundation area. Thus, no impacts would occur in this regard.

h. Place within a 100-year flood hazard area structures, which would impede or redirect flood flows? ( )

☐ ☐ ☐ ☒

WHY? The entire City of Pasadena is in Zone D on the Federal Emergency Management Agency (FEMA) map Community Number 065050, which indicates the City is not within a 100-year floodplain. Therefore, the project would not place structures within a 100-year flood plain, which would impede or redirect flood flows. No impact would occur in this regard.

i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? ( )

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WHY? As indicated above, no portions of the City of Pasadena are within a 100-year floodplain identified by the FEMA. In addition, according to the City's Dam Failure Inundation Map (Plate 3-1, of

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

the adopted 2002 Safety Element of the City's General Plan), the project site is not identified within an inundation area. Therefore, the project would have no impact from exposing people or structures to flooding risks, including flooding as a result of the failure of a levee or dam.

j. Inundation by seiche, tsunami, or mudflow? ( )

☐ ☐ ☐ ☒

WHY? The City of Pasadena is not located near enough to any inland bodies of water or the Pacific Ocean to be inundated by either a seiche or tsunami. In addition, the site and surrounding area is flat and is not located in an area of potential mudflow. Thus, no impacts would occur regarding inundation by seiche, tsunami, or mudflows.

12. LAND USE AND PLANNING.

Would the project:

a. Physically divide an existing community? ( )

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WHY? The project site is located in a highly urbanized area with a mix of land uses. To the north of the site beyond California Boulevard are a mix of one- to three-story office and commercial buildings. One- and two-story industrial buildings are located to the east and the four-story Huntington Pavilion (medical office) is currently being constructed to the west. To the south, beyond Pico Street is a mix of one- and two-story commercial uses.

Development of the project site into an office building would be consistent and compatible with the established land use patterns in the area and would not physically divide an established community. The project would be a commercial infill project in a highly urbanized community. Therefore, no impacts would occur in this regard.

b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? ( )

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WHY? Several local and regional plans guide development within the project area. At the local level, the City's General Plan provides a comprehensive, long-term plan for future development within the City. Within various areas of the City, Specific Plans have been adopted that provide more detailed guidance than the General Plan regarding land use patterns and development. The project site is within the South Fair Oaks Specific Plan, which is the general plan land use designation for the site. In addition, the City of Pasadena Municipal Code, which includes the Zoning Code, directly regulates land use and development of the project site through development and building standards.

General Plan and Specific Plan. The General Plan designation for the project site is Specific Plan, expressly the South Fair Oaks Specific Plan. The South Fair Oaks Specific Plan was adopted in April 1998 to facilitate transition of the area to a center for biomedical and research facilities. The Specific Plan emphasizes biotech development that builds on the assets of the adjacent Huntington Hospital and the nearby California Institute of Technology. The 1994 General Plan allocated 1,550,000 net new square feet of non-residential development in the South Fair Oaks Specific Plan area. The 91,180 net new square feet (or 113,200 gross sf.) proposed by this project is within the development intensity envisioned in the South Fair Oaks Specific Plan area.

As the project proceeds through the development review process, the following General Plan objectives and polices are considered relevant:

Objective 1 – Targeted Development: Direct higher density development away from Pasadena's residential neighborhoods and into targeted areas, creating an exciting urban core with diverse economic, housing, cultural and entertainment opportunities.

The project is proposed away from residential neighborhoods and is within the South Fair Oaks Specific Plan – one of the seven "targeted growth" areas within the General Plan. Thus, the project is consistent with Objective 1.

Policy 1.3 – Transit-Oriented and Pedestrian-Oriented Development: Within targeted development areas, cluster development near light rail stations and along major transportation corridors thereby creating transit oriented development "nodes" and encouraging pedestrian access.

and

Policy 10.2 – Transit-Oriented Development: Within targeted development areas cluster development near light rail stations and along major transportation corridors to maximize transit use by local businesses and employees.

The project site is within 0.25 miles of the Fillmore Gold Line station and is within a Transit-Oriented Development (TOD) area. Thus, the project is consistent with Policy 1.3 and 10.2.

Policy 5.5 – Architectural and Design Excellence: The City shall actively promote architectural and design excellence in buildings, open space and urban design and shall discourage poor quality development.

and

Policy 5.6 – Human Values: Future development should reflect concern for the well-being of citizens – for workers, visitors, neighbors and passersby – and should embody the cultural values of the community; it should be accommodating, inspiring, inviting and enduring.

and

Policy 5.7 – Enhanced Environment: Development should be shaped to improve the environment for the public; it should support the distinctiveness of the locality and region as well as the special characteristics of the existing fabric of the site's immediate surroundings.

The final design of the project would be subject to design review by the Design Commission to ensure consistency with the applicable design policies. Based on the preliminary review of the project site plan, the exterior courtyard area at the corner of the site (California and Fair Oaks) appears to be responsive to the surrounding context by promoting pedestrian usage at this location. This proposed courtyard area would help to modulate and reduce the overall mass of the building, while offering an inviting public plaza element for pedestrians entering the office complex. With approval of the final project design by the Design Commission, the project would be consistent Polices 5.5 to 5.7.

Objective 10 – Diverse Economy: Pasadena shall promote a diverse economic base that serves local residents by providing jobs, by providing city revenues, by enhancing our dynamic social and cultural life, and by meeting the needs of international competition.

The project proposes additional office space that would allow for a more diverse economic base and provide jobs. Thus, the project is consistent with Objective 10.

Policy 22.1 – Urban Design: Urban design programs shall encourage pedestrian-oriented development, including encouragement of pedestrian circulation among parcels, uses, transit stops and public or publicly accessed spaces; requiring human scale; encouraging varied and articulated facades; requiring regular visual (as in the use of first floor windows with clear glass) and physical access for pedestrians; requiring the ground floor residential and commercial entries face and engage the street; and encouraging pedestrian-oriented streetscapes amenities.

The design of the proposed building would be pedestrian oriented, with regular visual and physical access as the building is in a transit-oriented development area. The main pedestrian access to the site would be from California Boulevard, where the main plaza would be located. The plaza would feature landscaping, including large mature trees, decorative paving, seating areas and a water feature. The plaza would serve to activate pedestrian use at the corner while providing an inviting public plaza at the entry to the building. Secondary pedestrian access to the site would be provided along the south side of the building, with the building entryway serving as a transition between the public plaza and the courtyard along the south side of the building. The incorporation of the open space features of the project, including the plaza and smaller courtyard areas, and final design review by the Design Commission would ensure that the project is consistent with Policy 22.1

The goals of the South Fair Oaks Specific Plan include the following:

- Create an attractive physical environment for businesses which commercial emerging technology, particularly related to biomedical.
- Integrate land use and transportation programs with the light rail station site at Fillmore Street.
- Support the retention and enhancement of local businesses.
- Mitigate related traffic impacts in the Specific Plan area and in adjacent residential neighborhoods.

As discussed above, the project would include office uses that would facilitate transition of the area to a center for biomedical and research facilities. The proposed building and site plan would be subject to design review by the Design Commission to ensure an attractive aesthetics environment is provided on the site. In response to the TOD requirements for the site, the Project is proposing to replace the site's automobile intense uses, which consist of an auto-body repair shop, restaurants and a massage parlor

with a LEED certified office building. The project site is located in a transit rich area, with close access to the Gold Line and Bus Lines 20, 51 and 70. To encourage the use of pedestrian activity and thereby enhance transit usage, the project is proposing a public plaza, as described above. In addition, bicycle racks would be provided at the entry level to the new office building and landscaping would be provided throughout the site to encourage pedestrian activity. Further, parking would be provided in accordance with the Municipal Code requirements for transit-oriented development. By encouraging transit usage in conjunction with a safe and pleasant pedestrian-oriented environment, the project would serve to minimize traffic impacts.

Overall, based on the anticipated approval of the Design Review by the Design Commission and recognizing that the project proposes uses with an intensity allowed by the project's Specific Plan land use designation and would be consistent with the above referenced goals, objectives and policies, the project would not conflict with the City's General Plan or South Fair Oaks Specific Plan.

Historic Preservation Ordinance

The City of Pasadena has a Historic Preservation Ordinance. Section 7 of this document identifies that the project may significantly impact historic resources. Therefore, the project's consistency with the City's Historic Preservation Ordinance will be discussed in the Cultural Resources Section of the EIR. Since the project's consistency with the City's Historic Preservation Ordinance will be discussed in the Cultural Resources section of the EIR, a separate Land Use and Planning discussion is not required for the EIR.

Zoning

The zoning designation for the site is IG-SP-2 (Industry, General, South Fair Oaks Specific Plan), which indicates the site is within an industrial district (IG) and subject to the South Fair Oaks Specific Plan Overlay District (SP2). The proposed 'Office – Administrative Business Professional' use is an allowed land use in this district.

The site is within a quarter mile of the Metro Gold Line Fillmore Station and falls within a TOD area that is subject to the City's TOD standards. Thus, the project is required to meet the TOD standards in Section 17.50.340. These standards encourage the use of transit and walking through building design standards and reduced parking requirements. As discussed under the project's consistency with the goals of the Specific Plan, the project would encourage transit usage and provide a safe and pleasant pedestrian-oriented environment, consistent with the TOD requirements. In addition, as the project is within a TOD area, it would be required to obtain a Minor CUP for Transit Oriented Development from a Hearing Officer. The required findings are as follows:

1 The project consists of a use, or mix of uses, that encourage transit use and is oriented toward the transit user.

2 The project is designed to enhance pedestrian access and/or other non-motor vehicle modes of transportation to public transit.

3 The project encourages pedestrian activity and/or other non-motor vehicle modes of transportation and reduces dependency on motor vehicles.

Based on the above, the project is anticipated to be consistent with the required findings for a TOD development project.

The South Fair Oaks Specific Plan does not have a maximum allowable building area, thus the project's proposed 113,200 gross sf. would be consistent with the allowable intensity for the site.

The maximum allowable building height for the project site is 45 feet. Per Section 17.40.060.D.2.a of the Zoning Code, the appurtenances may exceed the maximum allowable height by up to 15 feet, provided the total footprint of all appurtenances does not exceed 25 percent of the roof area. The Design Commission has the authority to increase this to 20 feet, if the Design Commission finds that the additional height provides an improved architectural design (e.g., towers or other architectural features). The proposed office building would be up to four stories tall (or 45 feet) and would also include architectural features and screening that may go up to an additional 14 feet to provide building continuity, attractive design, and screening for mechanical equipment, which is consistent with the maximum allowable 45-foot building height for the project site.

The South Fair Oaks Specific Plan requires that a minimum 300 square foot open space area be provided with minimum dimension of 15 feet. The project would provide open space that exceeds requirements of the Specific Plan.

Per Section 17.46.040 - Number of Off-Street Parking Spaces Required, of the Zoning Code, the minimum number of parking spaces for 'Office – Administrative Business Professional' is three spaces for every 1,000 square feet of floor area (parking areas do not count towards this calculation). However, per Section 17.50.340, Transit Oriented Development, in the Zoning Code, because the site is within one-quarter mile of the Fillmore Light-Rail Station, this standard is reduced by 25 percent. Further, the minimum number of parking spaces may only be exceeded through the provision of 'Commercial Off-Street Parking', 'Shared Parking', or 'Joint Parking'. The proposed gross floor area is 113,200 square feet. After the 25 percent reduction, the required number of parking spaces is a maximum of 255. As proposed, 190 of the 255 parking spaces (74.5%) would be in a tandem configuration. A maximum of 75% of provided parking spaces may be tandem pending approval of a Minor Conditional Use Permit.

For non-residential structures of 15,000 square feet or more, five percent of the total required motor vehicle parking is required. Therefore, 11 bicycle spaces are required. The project would provide a minimum of 11 bicycle spaces to meet this requirement.[5]

All office projects with floor area over 40,000 square feet are required to provide one loading space for every 40,000 square feet, to a maximum requirement of four spaces. One loading spaces shall be at least 12 feet by 30 feet, with 14 feet of vertical clearance, with the remainder at least 10 feet by 20 feet, with 12 feet of vertical clearance. Based on a gross floor area of 113,200 square feet, three loading spaces are required. Three spaces would be provided by the project in accordance with the loading requirements for the site.

Overall, based on the anticipated approvals for the project, the project would be consistent with the land use regulations and development standards set forth in the City's Municipal Code, which includes the Zoning Code.

[5] Pre-application Conference Comments Memo, dated March 12 2008. "Current Planning" comments provided by David Sinclair, Planner, City of Pasadena.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

Regional Plans. Regional planning agencies also have jurisdiction over land use issues and maintain policies that apply to the project site. These include the Los Angeles County Congestion Management Plan (CMP), which regulates regional traffic issues; the South Coast Air Quality Management District's (SCAQMD) Air Quality Management Plan (AQMP), which addresses attainment of state and federal ambient air quality standards throughout the South Coast Air Basin; and the Southern California Association of Governments' (SCAG) Regional Comprehensive Plan & Guide (RCPG), Regional Transportation Plan (RTP), and Growth Vision Report address regional development and forecasts growth for cities under its jurisdiction An analysis of the project's consistency with these existing local plans and zoning is provided below.

The project's consistency with the CMP program and the AQMP will be discussed in the EIR. Since the project's consistency with these programs will be discussed in the Traffic and Air Quality sections of the EIR respectively, a separate Land Use and Planning discussion is not required for the EIR.

SCAG's RCPG, RTP and Growth Vision Report include goals, policies and objectives to minimize the environmental effects of development region wide. The primary goals of the RCPG are to improve the standard of living, enhance the quality of life, and promote social equity. Throughout each of the SCAG policy documents, the promotion and use of alternative transportation is a primary objective to minimize the environmental effects of development region wide. Consistent with the SCAG regional goals and policies, the development of a currently under-utilized site within the South Fair Oaks Specific Plan area would directly support policies which promote infill and redevelopment in developed, transit-accessible areas. The proposed project would introduce new office uses within the area, while remaining compatible with surrounding industrial and commercial uses. Based on its location, the proposed project would minimize infrastructure costs, make use of existing facilities, and reduce the number of auto trips and vehicle miles when compared to similar projects in less centralized locations. The project would incorporate design features to encourage transit usage within a TOD area in conjunction with a safe and pleasant pedestrian-oriented environment. Therefore, the proposed project is considered consistent with the SCAG regional documents.

c. Conflict with any applicable habitat conservation plan (HCP) or natural community conservation plan (NCCP)? ( )

☐ ☐ ☐ ☒

WHY? There are no Habitat Conservation or Natural Community Conservation Plans in Pasadena. Thus, no impacts would occur in this regard.

13. MINERAL RESOURCES.

Would the project:

a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? ( )

☐ ☐ ☐ ☒

WHY? The Final Environmental Impact Report for the adopted 1994 Land Use and Mobility Elements of the City's General Plan states that there are two areas in Pasadena, which may contain mineral

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

resources of sand, gravel and stone Eaton Wash, and Devils Gate Reservoir. This project is not near these areas. Thus, no impacts regarding mineral resources would occur.

b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? ( )

☐ ☐ ☐ ☒

WHY? There are no locally important mineral-resource recovery sites delineated by the City of Pasadena Land Use Element of the Comprehensive General Plan. The 1999 "Aggregate Resources in the Los Angeles Metropolitan Area" map published by the California Department of Conservation, Division of Mines and Geology shows no aggregate resources within the City of Pasadena. Thus, no impacts regarding the loss of availability of a locally-important mineral resource recovery site would occur.

14. NOISE.

Will the project result in:

a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? ( )

☒ ☐ ☐ ☐

WHY? Operation of the project may increase existing noise levels as a result of project-related traffic and employees/visitors entering and exiting the project site. Additionally, construction activities and the use of heavy equipment (e.g., bulldozers, backhoes, cranes, loaders, etc.) during project construction would generate noise on a short-term basis. Therefore, it is recommended that the project's potential to exceed noise standards be analyzed further in an EIR.

b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? ( )

☒ ☐ ☐ ☐

WHY Given the nature of the project's proposed office use, excessive groundborne vibration or groundborne noise levels within the project area would not occur during project operation. However, construction of the project may temporarily expose people to ground borne vibration or groundborne noise levels. Although construction activities would be short-term in nature, it is recommended that the potential vibration and ground borne noise generated by construction activities be analyzed in an EIR.

c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? ( )

☒ ☐ ☐ ☐

WHY? As discussed above, project operations may contribute to an increase in ambient noise levels. Therefore, it is recommended that impacts associated with a permanent increase in ambient noise levels be analyzed in an EIR.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? ( )

☒ ☐ ☐ ☐

WHY? As discussed above, construction related activities may result in a temporary increase in ambient noise levels in the site vicinity. Thus, it is recommended that this issue be analyzed further in an EIR.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? ( )

☐ ☐ ☐ ☒

WHY? There are no airports or airport land-use plans in the City of Pasadena. The closest airport is the Bob Hope Airport (formerly the Burbank-Glendale-Pasadena Airport), which is located more than 15 miles from Pasadena in the City of Burbank. Therefore, construction or operation of the project would not expose people to excessive airport related noise levels and no impacts would occur in this regard.

f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? ( )

☐ ☐ ☐ ☒

WHY? There are no private-use airports or airstrips within or near the City of Pasadena. As such, construction or operation of the project would not expose people residing or working in such an area to excessive noise levels and no impacts would occur in this regard.

15. POPULATION AND HOUSING.

Would the project:

a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? ( )

☐ ☐ ☒ ☐

WHY? The project does not propose the development of new residential units. Thus, the project would not directly generate an increase in the residential population in the area. Based on current socioeconomic and land use data for the Los Angeles region, employment generation factors show that the proposed office use would generate 314 employees based on 100,240 square feet of office area. The existing on-site commercial uses are estimated to generate 30 employees based on 12,635 square

feet of commercial uses.[6] As a result, the project would provide a net increase of 284 employees for the site. Based on employment projections provided by SCAG in its RTP, the employment population in the City is anticipated to increase from 117,954 employees in 2008 to 119,968 in 2010 or an increase of 2,004 employees. While the project would increase employment, this increase would be well within the employment projections set by the SCAG for the City of Pasadena. Furthermore, any potential induced residential growth resulting from the new employment opportunities is not expected to be substantial, as a number of the new workers are likely to already reside in the area or within a reasonable commuting distance. To the extent that some employees relocate to live closer to their place of employment, this demand is not expected to be substantial and could be served by existing available housing and rental opportunities as well as other housing that is planned or under construction in the area. Furthermore, no new roadways or other infrastructure that would serve an area beyond the project site would be constructed as part of the project. Therefore, implementation of the project would have a less than significant impact on inducing substantial population growth either directly or indirectly.

b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? ( )

☐ ☐ ☐ ☒

WHY? The project site does not contain any existing dwelling units. Therefore, the proposed project would not displace any residents or housing, and no impacts would occur.

c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? ( )

☐ ☐ ☐ ☒

WHY? The project site does not contain any existing dwelling units. Therefore, the proposed project would not displace any people, and no impacts would occur.

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[6] *In the Employment Density Report prepared by the Natelson Company, Inc., an economic consulting firm, employment generation factors were derived from SCAG employment database and from Floor Area Ratio (FAR) figures obtained from Assessor's Parcel records. As a result, these employment generation factors were established for ten different land use categories within the Los Angeles region. To determine the number of employees for the existing and project conditions, the land use categories of "Other Retail/Svc" and "Low-Rise Office" were used to assess each site condition. The employee generation for "Other Retail/Svc" (2.36 employees/1000 s.f) was used for the existing commercial uses, which included the 6,525 square foot Monty's steakhouse, 2,720 square foot Grandview Palace Restaurant/Retail store and a 3,390 square foot boot M&G Auto Body shop. Thus, the existing number of employees is estimated to be 30 employees (2.36 employees/1000 s.f. x 12,635 s.f.= 30 employees). The employee generation factor for "Low-Rise Office" (3.13 employees/1000 s.f.) was used to calculate the projected 314 employees with the project (3.13 employees/1000 s.f. x 100,240 s.f.= 314 employees).*

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

16. PUBLIC SERVICES.

Will the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a. Fire Protection? ( )

☐ ☐ ☒ ☐

WHY? The project site is located in an urbanized area and is considered a low fire hazard area according to the 2002 Revised Safety Element of the General Plan, Technical Background Report to the Safety, Wildfire Hazard Map Plate 4-2. The project would be served by Fire Station #31, located approximately 0.56 miles from the site at 135 S. Fair Oaks Avenue. The proposed office building is expected to generate approximately 314 employees, thus increasing the demand for fire protection services. However, with 147 currently employed shift personnel, there would be a sufficient level of staff available to serve the project and meet the demands for fire protection services. Accordingly, the project itself is not large enough to require the development of additional Fire Department facilities. Furthermore, adequate safety and security features such as fire sprinklers and alarm systems would be installed to ensure fire safety. As project plans would be reviewed and approved by Building Division and the Fire Department prior to issuance of any permits, impacts associated with fire protection would be less than significant.

b. Libraries? ( )

☐ ☐ ☒ ☐

WHY? The project site is located approximately 0.7 miles northwest of the Allendale Library. The introduction of new daytime employees would not substantially affect the provision of library services. Therefore, less than significant impacts to libraries would occur.

c. Parks? ( )

☐ ☐ ☒ ☐

WHY? The project is located approximately 0.3 miles from Singer Park, a small neighborhood park located at the intersection of California Boulevard and St. John Avenue. The proposed project is a non-residential project that would not directly increase the City's population. However, there is some potential for an increase in usage of park space given the new employees and patrons associated with the proposed project. The City collects a park impact fee for non-residential use based on the amount of square feet, which fully mitigates potential impacts to park facilities. In addition employees would also have access to the plazas and open spaces in the project. South Fair Oaks Specific Plan requires new development to include these passive spaces. The project is not expected to create a significantly increased demand for neighborhood or regional parks or other recreational facilities. Thus, impacts on parks would be less than significant.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

d. Police Protection? ( )

☐ ☐ ☒ ☐

WHY? The proposed project would be served by the Pasadena Police Department, with the nearest station located approximately 1.33 miles from the project site at 207 N. Garfield. Although the project would not result in a large residential population, the demand for police protection services could nominally increase due to the increased employee population. The project would incorporate a card access system to control parking entry, building entry (after hours) and access to individual floors via the elevators. A card-accessed controlled roll down grill would secure the parking garage after normal operating hours. Access to the south courtyard/south building entry would be card-controlled after hours. These and other project security features would reduce the potential for crime and the need for police response to the site. The police department would review the project plans prior to issuance of a building permit to ensure consistency with applicable police-related design standards. Furthermore, the proposed site is not located in a high crime rate area according to Police Department burglary statistics. While the project would nominally increase the need for police protection, the project would not result in a need to alter existing or construct new police protection facilities, the construction of which could result in significant impacts on the physical environment. Thus, less than significant impacts regarding police protection services and facilities would occur.

e. Schools? ( )

☐ ☐ ☒ ☐

WHY? The Pasadena Unified School District (PUSD) serves grades kindergarten through 12 in the project vicinity. Since no residential land uses are proposed as part of the project, school services would not be directly affected by implementation of the proposed project. Employment generated by the proposed project would have the potential to generate a small number of students in the PUSD if new employees choose to relocate to Pasadena or petition and are allowed to have their children attend Pasadena schools. The PUSD, in accordance with California Government Code Sections 53080 and 65995, collects statutory developer fees as a condition of the issuance of building permits. Payment of these fees by the applicant, in accordance with State law, would provide full and complete mitigation for purposes of CEQA. Therefore, potential impacts on schools are considered less than significant.

f. Other public facilities? ( )

☐ ☐ ☒ ☐

WHY? Project development may result in additional maintenance of other public facilities. Since the project is consistent with the General Plan and zoning designation for the site, the demand for public facilities has been accounted for in the City's planning process. Revenue to the City in terms of impact fees, increased property taxes (and additional sales tax), and development fees will ensure that adequate levels of service are maintained. The growth and development of the proposed project would not substantially increase demand for any City services or substantially degrade any public facility. As such, impacts would be less than significant.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

17. RECREATION.

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? ( )

☐ ☐ ☒ ☐

WHY? The use of existing neighborhood and regional parks is not expected to substantially increase as a result of the proposed project, given limited lunch time hours and provisions of passive recreation areas. Any use of local parks by employees would likely be for passive recreation (walking or eating lunch) on weekdays rather than during peak weekend use. Therefore, impacts on parks or recreational facilities would be less than significant.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment? ( )

☐ ☐ ☒ ☐

WHY? Passive recreational areas for employees would be provided within the proposed pedestrian plaza area accessible from the corner of California Boulevard and Fair Oaks Avenue, as well as smaller courtyard near the southern entrance of the building. The project would not require the construction or expansion of recreational facilities. As such, impacts regarding parks in this regard would be less than significant.

18. TRANSPORTATION/TRAFFIC.

Would the project:

a. Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

☒ ☐ ☐ ☐

WHY? The proposed project could result in potentially significant impacts associated with a substantial increase in traffic or an exceedance of level of service standards. Therefore, a traffic study will be prepared for the project. Project-generated traffic volumes will be based on the proposed square feet of office space. The analysis of traffic impacts will identify key intersections for analysis, quantify existing and future traffic conditions at those locations, identify impacts caused by the addition of project-generated traffic, and identify mitigation measures to reduce potentially significant impacts generated by the project, as appropriate and where feasible. The traffic study will address potential impacts on transportation facilities within the City of Pasadena, as well as regional facilities within the jurisdiction of Los Angeles County and California Department of Transportation (Caltrans). The findings of the traffic study will be incorporated into an EIR.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways? ( )

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WHY? As discussed in Response 18.a. above, the proposed project could result in potentially significant impacts associated with a substantial increase in traffic or an exceedance of level of service standards. Potential impacts could affect both local and regional transportation systems. Accordingly, analysis of this issue will be undertaken in an EIR based on a traffic study prepared for the project.

c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? ( )

☐ ☐ ☐ ☒

WHY? The project site is not within an airport land use plan or within two miles of a public airport or public use airport. The nearest public use airport is in Burbank, which is operated by a Joint Powers Authority with representatives from the Cities of Burbank, Glendale, and Pasadena. Consequently, the proposed project would not affect any airport facilities and would not cause a change in the directional patterns of aircraft. Therefore, the proposed project would have no impact to air traffic patterns.

d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? ( )

☐ ☐ ☒ ☐

WHY? Vehicular access to the site would be provided via an ingress driveway along Fair Oaks Avenue and California Boulevard. Vehicles entering the site from Fair Oaks Avenue would traverse the driveway in an easterly direction to Edmondson Alley. Vehicles would then turn left at the alley and left again back into the site (in a westerly direction) via an ingress/egress driveway that leads to the subterranean parking garage. The proposed access to the site has been configured so that vehicular queuing would occur on-site rather than along Fair Oaks Avenue during peak traffic hours. Vehicles could also enter the site from California Boulevard, where they would travel in a southerly direction along Edmondson Alley and make a right turn onto the ingress/egress driveway that leads to the subterranean parking garage. The project has been preliminarily evaluated by the Pasadena Department of Transportation (DOT) and its circulation design has been found not to be hazardous to traffic circulation either within the project or in the vicinity of the project. In addition, the project's circulation design would need to meet the City's engineering standards. Final design review and approval by the Pasadena DOT would ensure that the project does not increase hazards due to a design feature or incompatible use. Thus, less than significant impacts would occur in this regard.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

e. Result in inadequate emergency access? ( )

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WHY? The ingress and egress for the site have been preliminarily evaluated by the Pasadena DOT and found to be adequate for emergency access or access to nearby uses. The project does not involve the elimination of a through-route, does not involve the narrowing of a roadway, and all proposed roadways, access roads and drive lanes meet the Pasadena Fire Department's access standards. The project must comply with all Building, Fire and Safety Codes and plans are subject to review and approval by the Public Works and the Transportation Departments, and the Building Division and Fire Department. Therefore, there would be no significant impacts related to inadequate emergency access.

f. Result in inadequate parking capacity? ( )

☐ ☐ ☒ ☐

WHY? Per Section 17.46.040 - Number of Off-Street Parking Spaces Required, of the Zoning Code, the minimum number of parking spaces for 'Office – Administrative Business Professional' is three spaces for every 1,000 square feet of floor area (parking areas do not count towards this calculation). However, per Section 17.50.340, Transit Oriented Development, in the Zoning Code, because the site is within one-quarter mile of the Fillmore Light-Rail Station, this standard is reduced by 25 percent. Further, the minimum number of parking spaces may only be exceeded through the provision of 'Commercial Off-Street Parking', 'Shared Parking', or 'Joint Parking.' The proposed gross floor area is 113,200 square feet. After the 25 percent reduction, the required number of parking spaces is 255. The project would provide a maximum of 255 spaces within a subterranean parking garage in accordance the parking requirements.

g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)? ( )

☐ ☐ ☒ ☐

WHY? The site is within a quarter mile of the Metro Gold Line Fillmore Station and falls within a TOD area that is subject to the City's TOD standards in Section 17.50.340 of the Zoning Code. These standards encourage the use of transit and walking through building design standards and reduced parking requirements. In addition, as the project is within a TOD area, it would be required to obtain a Minor CUP for Transit Oriented Development from a Hearing Officer. The required findings are as follows:

1 The project consists of a use, or mix of uses, that encourage transit use and is oriented toward the transit user.

2 The project is designed to enhance pedestrian access and/or other non-motor vehicle modes of transportation to public transit.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

3 The project encourages pedestrian activity and/or other non-motor vehicle modes of transportation and reduces dependency on motor vehicles.

In response to the TOD requirements, the project is proposing to replace the site's automobile intense uses, which consist of an auto-body repair shop, restaurants and a massage parlor with a LEED certified office building. The project site is located in a transit rich area, with close access to the Gold Line and Bus Lines 20, 51 and 70. To encourage the use of pedestrian activity and thereby enhance transit usage, the project is proposing a public plaza, which would feature landscaping and seating amenities for pedestrians. In addition, bicycle racks would be provided at the entry level to the new office building and landscaping would be provided throughout the site to encourage pedestrian activity. Further, parking would be provided in accordance with the Municipal Code requirements for transit-oriented development, as discussed above. Based on the above, the project is anticipated to be consistent with the required findings for a TOD development project.

Section17.46.290, Trip Reduction Requirements for Nonresidential Projects, of the Zoning Code requires that non-residential development projects, which exceed 100,000 square feet of gross floor area meet the following requirements:

a) Carpool and vanpool parking. A minimum of 10 percent of the employee parking spaces shall be reserved for and designated as preferential parking for carpool and vanpool vehicles. The parking area shall be in a location more convenient to the place of employment than parking spaces for single occupant vehicles, and shall be located as close as practical to the employee entrance.

b) Bicycle parking. Bicycle parking shall be provided on site in compliance with Section 17.46.320 (Bicycle Parking Standards), below. In addition, the bicycle parking shall be located near the employee entrance and shall be conveniently accessible from the external circulation system.

c) Transportation information display. A transportation information display (e.g., a bulletin board, display case, or kiosk) shall be located on the development site, situated so as to be seen by the greatest number of employees. Information displayed shall include, without limitation, current maps, routes, and schedules for public transit routes serving the development; the telephone number of referrals for transportation information including the numbers for the regional ridesharing agency and local transit operators; ridesharing promotional materials; bicycle routes and facility information; and a listing of facilities available for bicyclists, carpoolers, pedestrians, transit riders, and vanpoolers at the development.

d) Carpool and vanpool loading area. A passenger loading area for carpool and vanpool vehicles shall be provided on site. At a minimum, the area shall be of sufficient size to accommodate the number of waiting vehicles equivalent to 10 percent of the required number of carpool and vanpool spaces.

e) Connecting sidewalks. Designated pedestrian sidewalks or paths shall be provided on the development site between the external pedestrian system and each structure in the development.

f) Bus stop improvements. Bus stop improvements, including bus pads, bus pullouts, and right-of-way for bus shelters may be required as mitigation measures if a proposed development would have substantial traffic impacts.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

The project would provide parking, loading spaces and a transportation display area in accordance with Nos. a-d, above. The project would provide pedestrian linkages from the project entryways to the external pedestrian system along California Boulevard and Fair Oaks Avenue, in accordance with No. e, above. Also, bus stop improvements would be provided as determined appropriate based on the results of the traffic study and in consultation with the City of Pasadena DOT. To ensure compliance with all applicable requirements set forth in Section17.46.290, the project site plans would be subject to review and approval by the City of Pasadena DOT.

During construction, there may be a temporary increase in traffic hazards to motorists, bicyclists or pedestrians. This would be mitigated to a level of insignificance through compliance with the City's requirement to prepare a Construction Staging and Traffic Management Plan and the Noise Ordinance. The Construction Plan would contain approved transportation routes for materials that are deemed to be the least disruptive by the Public Works and Transportation Departments. The Noise Ordinance limits the hours of construction primarily to daytime hours to control the level of noise. A benefit of this limitation is that it requires construction take place primarily when visibility is greatest. These existing requirements would ensure a less than significant impact to motorists, bicyclists or pedestrians during construction.

19. UTILITIES AND SERVICE SYSTEMS.

Would the project:

a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? ( )

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WHY? The project is located in a developed urbanized area where domestic sewer service is available in which the project can connect to the City sewer system provided by the City of Pasadena Department of Public Works (DPW). The City of Pasadena is located within Los Angeles County Sanitation District 16. The project is anticipated to generate a wastewater demand of approximately 16,980 gallons per day (gpd).[7] The existing uses currently generate approximately 9,536 gallons per day of wastewater.[8] Thus, the project would result in a net increase of 7,444 gpd of wastewater when compared to existing conditions. Based on the assumption that wastewater accounts for approximately 75 percent of water demand, the existing uses and project would generate approximately 12,715 gpd and 22,640 gpd of water, respectively. Thus, with the project, there would be a net increase of approximately 9,925 gpd of water when compared to existing conditions.

The project would generate an increase in wastewater when compared to existing conditions in the form of domestic sewage. Domestic sewage typically meets wastewater treatment requirements

7 Source: L.A. CEQA Thresholds Guide, City of Los Angeles, 2006. Exhibit M.2-12, Sewage Generation Factors – Office Building: 150 gallons/day/1000 gr. s.f. Calculation: 113,200 gr. s.f x 150 gal/day/1,000 gr. s.f. = 16,980 gallons/day of wastewater.

8 Source: L.A. CEQA Thresholds Guide, City of Los Angeles, 2006. Exhibit M.2-12, Sewage Generation Factors – Massage Parlor: 275 gallons/day/1000 gr. s.f., Restaurant (Full Service): 30 gallons/day/seat, Auto Body Shop: 800 gallons/day/1,000 gr. s.f. Calculation: [1,360 gr. s.f (Massage Parlor) x 275 gal/day/1,000 gr. s.f.] + [[150 Seats (Monty's) + 65 Seats (Grandview Palace)] x 30 gallons/day/seat] + [3,390 gr. sf. (Auto Body) x 800 gallons/day/1,000 gr. s.f.] = 9,536 gallons/day of wastewater.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

because wastewater treatment facilities are designed to treat domestic sewage. The project does not involve the release of unique or unusual sewage into the wastewater treatment system. Therefore, the project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, and would have no associated impacts.

b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? ( )

☐ ☐ ☒ ☐

WHY? As discussed in Response No. 19.a, the project would result in a net increase of 9,925 gpd and 7,444 gpd of water and wastewater, respectively, when compared to existing conditions. The Pasadena Water and Power (PWP), Water Division, provides water service to the project site, while sewer service is provided by the City of Pasadena DPW. Currently, the existing water mains available to serve the project site include 12-inch cast-iron (CI) water mains located along Fair Oaks Avenue and California Boulevard adjacent to the project site. Although there would be an increase in water demand by the project when compared to existing conditions, the PWP has indicated that it can serve water to the project.[9] The project would be required to pay fees to connect to the existing water mains available to serve the project site. Connections to the existing water mains would occur during construction of the project and would not cause significant environmental effects beyond those analyzed in this Initial Study.

Under existing conditions, there are 8-inch vitrified clay pipe (VCP) sewer mains located along Fair Oaks Avenue and California Boulevard to serve the project site. While there would be an increase in the amount of wastewater generated by the project when compared to existing conditions, per the City's DWP, wastewater generated by the project will be accommodated within existing wastewater facilities.[10] Connections to the existing wastewater facilities would be necessary. Similar to water service, the project would pay fees to DPW to connect to existing sewer lines. The necessary connections would not cause significant environmental effects beyond those analyzed in this Initial Study.

Overall, as existing water and wastewater facilities are available to serve the project site and no new water or wastewater treatment facilities or expansion of existing facilities would be required with project implementation, less than significant impacts would occur in this regard.

c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? ( )

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WHY? Under existing conditions, the site directs stormwater to various storm drain facilities located along California Boulevard, Fair Oaks Avenue and Edmondson Alley, where flows enter the City's municipal storm drain system. Drainage patterns under the project would be similar to the existing site conditions. Post-development runoff quantities would be expected to be similar to those of the existing

[9] Source: Pre-Application Comments prepared by Nelson Rodriguez, PWP, March 4, 2008.
[10] Source: Pre-Application Comments prepared by City Engineer, DPW, March 10, 2008.

project site as the site would be nearly all-impervious area. Therefore, the project would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities.

Further, the project applicant would submit and implement an on-site drainage plan that meets the approval of the Building Official and the Public Works Department; and the City's SUSMP ordinance requires post-development peak storm water runoff rates to not exceed pre-development peak storm water runoff rates. Based on the above, less than significant impacts would occur in this regard.

d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? ( )

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WHY? As analyzed in Response No. 19.a, the project would generate a water demand of approximately 22,640 gpd of water, which would be a net increase of 9,925 gpd of water when compared to existing conditions. Further, the proposed project is consistent with existing zoning and the South Fair Oaks Specific Plan and does not exceed the allowed development for the site. Additionally, as standard design features, the project would incorporate active water conservation measures, including, but not limited to: low flow, dual flush toilet/urinal controls; time-control sink faucets; drip irrigation systems for all landscape areas with a master environmental control system; roof storm water runoff filtered through selected planters to provide plant irrigation prior to entering the storm water runoff system; low water use landscape materials with heavy surface mulch to reduce evaporation; and maintenance specifications that require low water use, including a motorized brush machine for regular cleaning of the exterior plaza, courtyard and parking garage (no hose off allowed). These design features would further reduce project-level demand. Nevertheless, cumulative water demand will be analyzed in the EIR.

e. Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? ( )

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WHY? As discussed in Response No. 19.b, the project would increase the demand for wastewater service when compared to existing conditions. However, the proposed increase to wastewater service demand is negligible in comparison to the existing service area of the wastewater service purveyor. In addition, the facilities currently maintained by the service purveyor are adequate to serve the proposed increase in demand. Therefore, the project would not result in insufficient wastewater service, and less than significant impacts would occur in this regard.

f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? ( )

☐ ☐ ☒ ☐

WHY? As discussed in response No. 15.a, the existing on-site uses are anticipated to generate 30 employees. Based on the size of the existing on-site buildings, the breakdown of the number of

employees for the existing on-site uses are as follows: Auto Body Shop – 8 employees, Monty's restaurant – 16 employees, and Restaurant/massage – 6 employees.[11] Utilizing waste generation rates from the Integrated Waste Management Board, the existing on-site uses generate approximately 387 pounds of solid waste per day (within a seven-day work week), while the project would generate approximately 795 pounds of solid waste per day (within a five-day work week). The existing on-site uses generate approximately 71 tons per year, while the project would generate 100 tons per year. Thus, there would be a net increase of approximately 29 tons per year of solid waste generated by the project when compared to existing conditions.[12]

Solid waste is disposed of at landfills with a region-wide service area. The City's Street Maintenance and Integrated Waste Management (SMIWM) indicate that solid waste generated by the project site would be taken to Scholl Canyon Landfill, which has capacity through 2025. The City is also secondarily served by the Puente Hills Landfill which was repermitted in 2003 for 10 years and is not expected to close until 2013. The Scholl Canyon Landfill and Puente Hills Landfill have a maximum daily capacity of 3,400 tons per day and 13,200 tons per day, respectively. The School Canyon and Puente Hills Landfills have a remaining capacity of 6.80 million tons and 22.84 million tons, respectively. Solid waste generated by the project would contribute less than one percent of the daily capacity and remaining capacity.[13]

Thus, solid waste collected at the project site would be negligible in comparison to the amount of solid waste generated by the region and less than significant impacts would occur regarding the capacity of the region-wide landfills.

g. Comply with federal, state, and local statutes and regulations related to solid waste? ( )

☐ ☐ ☒ ☐

WHY? In 1992, the City adopted the "Source Reduction and Recycling Element" to comply with the California Integrated Waste Management Act. This Act requires that jurisdictions maintain a 50% or better diversion rate for solid waste. The City implements this requirement through Section 8.61 of the Pasadena Municipal Code, which establishes the City's "Solid Waste Collection Franchise System". As described in Section 8.61.175, each franchisee is responsible for meeting the minimum recycling diversion rate of 50% on both a monthly basis and annual basis.

The proposed project is required to comply with the applicable solid waste franchise's recycling system, and thus, would meet Pasadena's and California's solid waste diversion regulations. In addition, the project would comply with the City's Construction and Demolition Ordinance (PMC Section 8.62) and

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11 The total square footage for the existing on-site building is 12,635 sf. The breakdown of the on-site uses is as follows: 3,390 sf. auto body shop (27% of site), 6,525 sf Monty's Restaurant (52% of site), and 2,270 sf. Restaurant/Massage (21% of site). Employees as follows: Auto Body Shop (.27 x 30 = 8 emp.), Monty's Restaurant (.52 x 30 = 16 emp.) and Restaurant/Massage (.21 x 30 = 6 emp.).

12 Solid Waste Generation Rates are based on California Integrated Waste Management Board, Targeted Statewide Waste Characterization Study, June 2006. Office Use [net office area]: 1,998 lbs/1,000 sf./year; Restaurant Use: 6,437 lbs/employee/year; Auto Body: 0.8 lb/100 sf/day; Services (Medical/Health) 1.5 tons/employee/year. Calculations assume: 3 massage employees and 3 restaurant employees in the restaurant/massage building; 16 employees in the Monty's restaurant building; office use operates 252 days per year.

13 Los Angeles County Countywide Integrated Waste Management Plan, 2005 Annual Report, Appendix E2.1: Remaining Permitted Combined Disposal Capacity of Existing Solid Waste Disposal Facilities in Los Angeles County, January 2006.

design requirements for refuge storage areas (PMC Section 17.64.240). Furthermore, as the project exceeds a threshold of being a new structure of 1,000 square feet or more, prior to construction the applicant must submit a Construction Waste Management Plan in accordance with the Construction and Demolition Ordinance (Chapter 8.62 of the Pasadena Municipal Code). Therefore, the project would be in compliance with applicable federal, state, and local statutes and regulations related to solid waste and impacts would be less than significant.

20. EARLIER ANALYSIS.

Earlier analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. See CEQA Guidelines Section 15063(c)(3)(D). Earlier analyses are discussed in Section 18 at the end of the checklist.

On November 8, 2004, the City of Pasadena certified the Final Environmental Impact Report (EIR) for the Mobility and Land Use Elements of the City of Pasadena Comprehensive General Plan, and Central District Specific Plan. The EIR focused its analysis on Land Use; Population, Employment and Housing; Transportation and Circulation; Geology; Hydrology and Water Quality; Air Quality; Noise; Biological Resources; Utilities; Public Services; Aesthetic/Visual Impacts; and Cultural Resources.

This document are available for review at the Permit Center, 175 North Garfield Avenue between the hours of 8:00 a.m. and 5:00 p.m. on Monday through Thursday and from 8:00-12:00 p.m. every Friday and the City Clerk's Office Monday through Thursday from 7:30 a.m. to 5:30 p.m. and every other Friday during the same hours.

21. MANDATORY FINDINGS OF SIGNIFICANCE.

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? ( )

☒	☐	☐	☐

WHY? As discussed in this Checklist, the project would not substantially degrade the quality of the environment. The project site is located in an urbanized area and has been developed for many years. No rare, threatened, or endangered biological resources are known to inhabit the site or use the site for migration or breeding. The project would not affect any fish, wildlife, or plant species, either directly or indirectly. The project would not threaten any plant or animal community or reduce the number or restrict the range of scarce or endangered plant or animal. The project would not have substantial impacts to archaeological or paleontological resources. As discussed in Response No. 7.a, further investigation is required to determine if the proposed project would impact historical resources. Thus, historic resources will be addressed in the EIR, however the project is not expected to eliminate any important examples of California history or prehistory.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future project? ( )

☒ ☐ ☐ ☐

WHY? The potential for cumulative impacts occurs when the independent impacts of the project and impacts of related projects in proximity to the project site combine to create impacts that are greater than the impacts of the project alone. Cumulative effects regarding air quality, historic resources, noise, water resources, hazards and hazardous materials, and transportation will be evaluated in an EIR.

Given the currently low visual quality of the site, its redevelopment would have a beneficial aesthetic effect and therefore, the project would not contribute to cumulative impacts in this regard and no significant cumulative aesthetic impacts would occur.

With regard to cumulative effects for the issues of agricultural, biological and mineral resources, the project site is generally located in a developed area and therefore, other developments occurring in the project area would largely occur on previously disturbed land and are not anticipated to have an impact associated with these resources. Thus, no cumulative impact to these resources would occur.

Impacts related to geology and soils are generally confined to a specific site and do not affect off-site areas. Cumulative development would expose a greater number of people to seismic hazards. However, as with the proposed project, related projects would be subject to local, State, and federal regulations and standards for seismic safety. Thus, cumulative impacts related to geology and soils would be less than significant.

Cumulative impacts with regard to cultural resources and hazards and hazardous materials will be evaluated in an EIR.

As demonstrated in the analysis provided above in Response No. 12.b, the proposed project would be consistent with applicable land use plans, policies and regulations. In addition, it would not divide an established community. Therefore, it would not contribute to cumulative land use impacts which are concluded to be less than significant.

Development of the proposed project in conjunction with the related projects could cumulatively increase potential contaminates from entering the storm water system. However, each related project would be required to comply with applicable NPDES and City requirements, which would include the use of BMPs during construction and operation of a project as detailed in a SWPPP and SUSMP. Compliance with these requirements would ensure that construction and operation of cumulative projects would not substantially degrade water quality. Thus, compliance with applicable city and state regulations would preclude significant cumulative impacts with regard to hydrology and water quality.

The proposed project in conjunction with related projects would cumulatively increase the employment and number of housing units in the area. However, these increases are expected to be within City and SCAG growth forecasts. Thus, no significant cumulative impacts to population or housing would occur.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact

The increase in area population resulting from the project would place new demands on public services such as fire protection, police protection, schools and parks. As the service providers monitor growth and adjust their resources accordingly, subject to City Council support, cumulative impacts on City services would be less than significant. Cumulative development would increase the demand for educational facilities within the project area. Pursuant to the provisions of SB50, all school impacts are considered reduced to less than significant levels through the payment of mandatory school impact fees. Thus, cumulative impacts on school facilities resulting from development of the project together with other related projects are concluded to be less than significant. In addition, future development projects would be required develop park facilities and/or open space areas or pay in-lieu fees to provide recreational/park facilities in accordance with the provisions of the Pasadena Municipal Code.

Development of the project in conjunction with the related projects would cumulatively increase wastewater generation and solid waste disposal. Thus, there is potential for a cumulative significant impact on utility infrastructure and facilities. However, each related project would be subject to discretionary review to ensure that adequate infrastructure capacity exists. Furthermore, utility service providers would conduct ongoing evaluations to ensure facilities are adequate to serve the forecasted growth of the community. Cumulative impacts on the wastewater system are, thus, considered less than significant (see Responses 19.a, b, c and e). The cumulative water demand scenario will be analyzed in an EIR.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? ( )

☒	☐	☐	☐

WHY? The proposed project is consistent with existing zoning and the South Fair Oaks Specific Plan. As discussed previously, the proposed project is located in a highly urbanized area and would replace existing commercial uses with a new office building. Based on the above discussion, however, construction and operation of the proposed project could potentially result in environmental impacts, which may cause adverse effects on human beings, either directly or indirectly. Further evaluation of potential impacts associated with environmental effects on human beings, including impacts related to air quality, historic resources, noise, water resources, hazards and hazardous materials, and transportation will be included in the EIR.

The following documents were used in analyzing the Initial Study:

INITIAL STUDY REFERENCE DOCUMENTS

#	Document
1	Alquist-Priolo Earthquake Fault Zoning Act, California Public Resources Code, revised January 1, 1994 official Mt. Wilson, Los Angeles and Pasadena quadrant maps were released March 25, 1999
2	Alquist-Priolo Earthquake Fault Maps- the official Los Angeles and Mt. Wilson, quadrant maps were released in 1977
3	CEQA Air Quality Handbook, South Coast Air Quality Management District, revised 1993
4	Energy Element of the General Plan, City of Pasadena, adopted 1983
5	2000-2005 Housing Element of the General Plan, City of Pasadena, adopted 2002
6	Land Use Element of the General Plan, City of Pasadena, adopted 2004
7	Mobility Element of the General Plan, City of Pasadena, adopted 2004
8	Noise Element of the General Plan, City of Pasadena, adopted 2002
9	Safety Element of the General Plan, City of Pasadena, adopted 2002
10	Scenic Highways Element of the General Plan, City of Pasadena, adopted 1975
11	Final Environmental Impact Report (FEIR) 2004 Land Use and Mobility Elements, Zoning Code Revisions, and Central District Specific Plan, City of Pasadena, adopted 2004
12	South Fair Oaks Specific Plan, City of Pasadena Planning & Development Department, adopted 1998
13	Inclusionary Housing Ordinance Pasadena Municipal Code Chapter 17.71 Ordinance #6868
14	Noise Protection Ordinance Pasadena Municipal Code Chapter 9.36 Ordinances # 5118, 6132, 6227, 6594 and 6854
15	Regional Comprehensive Plan and Guide, “Growth Management Chapter,” Southern California Association of Governments, June 1994
16	Seismic Hazard Maps, California Department of Conservation, official Mt. Wilson, Los Angeles and Pasadena quadrant maps were released March 25, 1999. The preliminary map for Condor Peak was released in 2002
17	State of California “Aggregate Resource in the Los Angeles Metropolitan Area” by David J. Beeby, Russell V. Miller, Robert L. Hill, and Robert E. Grunwald, Miscellaneous map no. .010, copyright 1999, California Department of Conservation, Division of Mines and Geology
18	Storm Water and Urban Runoff Control Regulations n Pasadena Municipal Code Chapter 8.70 Ordinance #6837
20	Tree Protection Ordinance Pasadena Municipal Code Chapter 8.52 Ordinance #6896
21	Zoning Code, Chapter 17 of the Pasadena Municipal Code

The above documents are available for review at the City of Pasadena, Permit Center, Hale Building, Planning and Development Department, 175 North Garfield Avenue, Pasadena, CA 91109.

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

Notice of Preparation

October 1, 2008

To: Reviewing Agencies

Re: 16 East California Project
SCH# 2008101002

Attached for your review and comment is the Notice of Preparation (NOP) for the 16 East California Project draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Erin Clark
City of Pasadena, Planning and Land Development
100 North Garfield Avenue, Rm. S116
Pasadena, CA 91109

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Assistant Deputy Director & Senior Planner, State Clearinghouse

Attachments
cc: Lead Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2008101002
Project Title 16 East California Project
Lead Agency Pasadena, City of

Type NOP Notice of Preparation

Description The proposed Project includes demolition of the three existing on-site structures totaling approximately 12,635 square feet and surface parking areas in order to develop a four-story, 113,200 gross square feet of office building with 255 parking spaces provided within a two-level subterranean parking garage.

Lead Agency Contact

Name Erin Clark
Agency City of Pasadena, Planning and Land Development
Phone 626-744-6708 **Fax**
email
Address 100 North Garfield Avenue, Rm S116
City Pasadena **State** CA **Zip** 91109

Project Location

County Los Angeles
City Pasadena
Region
Cross Streets South fair Oaks Avenue and East California Boulevard
Lat / Long 34° 08' 06.95" N / 118° 08' 59.71" W
Parcel No. 5720-004-001, -002, -003, -004 and -005
Township 1N **Range** 12W **Section** 28 **Base** SBB&M

Proximity to:

Highways 710, 134, 210
Airports None
Railways Metro Gold Line
Waterways Arroyo Seco
Schools Numerous
Land Use South Fair Oaks Specific Plan - Zoning - IG-SP-2

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Cumulative Effects; Landuse; Growth Inducing; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Water Quality; Water Supply; Wetland/Riparian

Reviewing Agencies Resources Agency; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Game, Region 5; Native American Heritage Commission; Public Utilities Commission; California Highway Patrol; Caltrans, District 7; Air Resources Board, Transportation Projects; Integrated Waste Management Board; Regional Water Quality Control Board, Region 4

Date Received 10/01/2008 **Start of Review** 10/01/2008 **End of Review** 10/30/2008

Note: Blanks in data fields result from insufficient information provided by lead agency.

NOP Distribution List

County: Los Angeles

SCH# 2008102002

Resources Agency

- [■] **Resources Agency** Nadell Gayou
- [ ] **Dept. of Boating & Waterways** David Johnson
- [ ] **California Coastal Commission** Elizabeth A. Fuchs
- [ ] **Colorado River Board** Gerald R. Zimmerman
- [ ] **Dept. of Conservation** Sharon Howell
- [ ] **California Energy Commission** Dale Edwards
- [ ] **Cal Fire** Allen Robertson
- [ ] **Office of Historic Preservation** Wayne Donaldson
- [■] **Dept of Parks & Recreation** Environmental Stewardship Section
- [ ] **Central Valley Flood Protection Board** Mark Herald
- [ ] **S.F. Bay Conservation & Dev't. Comm.** Steve McAdam
- [▨] **Dept. of Water Resources** Resources Agency Nadell Gayou
- [ ] _____ Conservancy

Fish and Game

- [ ] **Depart. of Fish & Game** Scott Flint Environmental Services Division
- [ ] **Fish & Game Region 1** Donald Koch
- [ ] **Fish & Game Region 1E** Laurie Harnsberger
- [ ] **Fish & Game Region 2** Jeff Drongesen
- [ ] **Fish & Game Region 3** Robert Floerke
- [ ] **Fish & Game Region 4** Julie Vance
- [▨] **Fish & Game Region 5** Don Chadwick Habitat Conservation Program
- [ ] **Fish & Game Region 6** Gabrina Gatchel Habitat Conservation Program
- [ ] **Fish & Game Region 6 I/M** Gabrina Getchel Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Game M** George Isaac Marine Region

Other Departments

- [ ] **Food & Agriculture** Steve Shaffer Dept. of Food and Agriculture
- [ ] **Depart. of General Services** Public School Construction
- [ ] **Dept. of General Services** Anna Garbeff Environmental Services Section
- [ ] **Dept. of Public Health** Veronica Malloy Dept. of Health/Drinking Water

Independent Commissions,Boards

- [ ] **Delta Protection Commission** Debby Eddy
- [ ] **Office of Emergency Services** Dennis Castrillo
- [ ] **Governor's Office of Planning & Research** State Clearinghouse
- [■] **Native American Heritage Comm.** Debbie Treadway
- [▨] **Public Utilities Commission** Ken Lewis
- [ ] **Santa Monica Bay Restoration** Guangyu Wang
- [ ] **State Lands Commission** Marina Brand
- [ ] **Tahoe Regional Planning Agency (TRPA)** Cherry Jacques

Business, Trans & Housing

- [ ] **Caltrans - Division of Aeronautics** Sandy Hesnard
- [ ] **Caltrans - Planning** Terri Pencovic
- [▨] **California Highway Patrol** Shirley Kelly Office of Special Projects
- [ ] **Housing & Community Development** CEQA Coordinator Housing Policy Division

Dept. of Transportation

- [ ] **Caltrans, District 1** Rex Jackman
- [ ] **Caltrans, District 2** Marcelino Gonzalez
- [ ] **Caltrans, District 3** Bruce de Terra
- [ ] **Caltrans, District 4** Lisa Carboni
- [ ] **Caltrans, District 5** David Murray
- [ ] **Caltrans, District 6** Michael Navarro
- [▨] **Caltrans, District 7** Elmer Alvarez
- [ ] **Caltrans, District 8** Dan Kopulsky
- [ ] **Caltrans, District 9** Gayle Rosander
- [ ] **Caltrans, District 10** Tom Dumas
- [ ] **Caltrans, District 11** Jacob Armstrong
- [ ] **Caltrans, District 12** Ryan P. Chamberlain

Cal EPA

Air Resources Board

- [ ] Airport Projects Jim Lerner
- [▨] Transportation Projects Ravi Ramalingam
- [ ] Industrial Projects Mike Tollstrup
- [▨] **California Integrated Waste Management Board** Sue O'Leary
- [ ] **State Water Resources Control Board** Regional Programs Unit Division of Financial Assistance
- [ ] **State Water Resources Control Board** Student Intern, 401 Water Quality Certification Unit Division of Water Quality
- [ ] **State Water Resouces Control Board** Steven Herrera Division of Water Rights
- [ ] **Dept. of Toxic Substances Control** CEQA Tracking Center
- [ ] **Department of Pesticide Regulation** CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB 1** Cathleen Hudson North Coast Region (1)
- [ ] **RWQCB 2** Environmental Document Coordinator San Francisco Bay Region (2)
- [ ] **RWQCB 3** Central Coast Region (3)
- [▨] **RWQCB 4** Teresa Rodgers Los Angeles Region (4)
- [ ] **RWQCB 5S** Central Valley Region (5)
  - [ ] **RWQCB 5F** Central Valley Region (5) Fresno Branch Office
  - [ ] **RWQCB 5R** Central Valley Region (5) Redding Branch Office
- [ ] **RWQCB 6** Lahontan Region (6)
  - [ ] **RWQCB 6V** Lahontan Region (6) Victorville Branch Office
- [ ] **RWQCB 7** Colorado River Basin Region (7)
- [ ] **RWQCB 8** Santa Ana Region (8)
- [ ] **RWQCB 9** San Diego Region (9)

- [ ] **Other** _____

Last Updated on 08/13/2008

WATER RECLAMATION
SOLID WASTE MANAGEMENT

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

1955 Workman Mill Road, Whittier, CA 90601-1400
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
Telephone: (562) 699-7411, FAX: (562) 699-5422
www.lacsd.org

STEPHEN R. MAGUIN
Chief Engineer and General Manager

October 2, 2008

File No: 16-00.04-00

Ms. Erin Clark, Associate Planner
City of Pasadena
Planning and Development Department
Economic Development Division
100 North Garfield Avenue, S116
Pasadena, CA 91109

Dear Ms. Clark:

16 East California Project

The County Sanitation Districts of Los Angeles County (Districts) received a Notice of Preparation of a Draft Environmental Impact Report for the subject project on October 1, 2008. The proposed development is located within the jurisdictional boundaries of District No. 16. We offer the following comments regarding sewerage service:

1. The wastewater flow originating from the proposed project will discharge to a local sewer line, which is not maintained by the Districts, for conveyance to the Districts' Arroyo Seco Trunk Sewer, Section 4, located in Garfield Avenue at the Pasadena Freeway. This 21-inch diameter trunk sewer has a design capacity of 13.4 million gallons per day (mgd) and conveyed a peak flow of 2.8 mgd when last measured in 2006.

2. The wastewater generated by the proposed project will be treated at the Whittier Narrows Water Reclamation Plant (WRP) located near the City of South El Monte, which has a design capacity of 15 mgd and currently processes an average flow of 7.2 mgd, or the Los Coyotes WRP located in the City of Cerritos, which has a design capacity of 37.5 mgd and currently processes an average flow of 25.8 mgd.

3. The expected average wastewater flow from the project site is 22,640 gallons per day. For a copy of the Districts' average wastewater generation factors, go to www.lacsd.org, Information Center, Will Serve Program, Obtain Will Serve Letter, and click on the appropriate link on page 2.

4. The Districts are authorized by the California Health and Safety Code to charge a fee for the privilege of connecting (directly or indirectly) to the Districts' Sewerage System or increasing the strength or quantity of wastewater attributable to a particular parcel or operation already connected. This connection fee is a capital facilities fee that is imposed in an amount sufficient to construct an incremental expansion of the Sewerage System to accommodate the proposed project. Payment of a connection fee will be required before a permit to connect to the sewer is issued. For a copy of the Connection Fee Information Sheet, go to www.lacsd.org, Information

Center, Will Serve Program, Obtain Will Serve Letter, and click on the appropriate link on page 2. For more specific information regarding the connection fee application procedure and fees, please contact the Connection Fee Counter at extension 2727.

5. In order for the Districts to conform to the requirements of the Federal Clean Air Act (CAA), the design capacities of the Districts' wastewater treatment facilities are based on the regional growth forecast adopted by the Southern California Association of Governments (SCAG). Specific policies included in the development of the SCAG regional growth forecast are incorporated into clean air plans, which are prepared by the South Coast and Antelope Valley Air Quality Management Districts in order to improve air quality in the South Coast and Mojave Desert Air Basins as mandated by the CAA. All expansions of Districts' facilities must be sized and service phased in a manner that will be consistent with the SCAG regional growth forecast for the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The available capacity of the Districts' treatment facilities will, therefore, be limited to levels associated with the approved growth identified by SCAG. As such, this letter does not constitute a guarantee of wastewater service, but is to advise you that the Districts intend to provide this service up to the levels that are legally permitted and to inform you of the currently existing capacity and any proposed expansion of the Districts' facilities.

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2717.

Very truly yours,

Stephen R. Maguin

Ruth I. Frazen
Customer Service Specialist
Facilities Planning Department

RIF:rf

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

October 8, 2008

Mr. Erin Clark
City of Pasadena
Planning and Development Department
Economic Development Division
100 North Garfield Avenue, S116
Pasadena, CA 91109

Dear Mr. Clark:

Notice of Preparation of a Draft Environmental Impact Report (Draft EIR) for the 16 East California Project

The South Coast Air Quality Management District (SCAQMD) appreciates the opportunity to comment on the above-mentioned document. The SCAQMD's comments are recommendations regarding the analysis of potential air quality impacts from the proposed project that should be included in the draft environmental impact report (EIR). Please send the SCAQMD a copy of the Draft EIR upon its completion. **In addition, please send with the draft EIR all appendices or technical documents related to the air quality analysis and electronic versions of all air quality modeling and health risk assessment files. Without all files and supporting air quality documentation, the SCAQMD will be unable to complete its review of the air quality analysis in a timely manner. Any delays in providing all supporting air quality documentation will require additional time for review beyond the end of the comment period.**

Air Quality Analysis

The SCAQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. The SCAQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from the SCAQMD's Subscription Services Department by calling (909) 396-3720. Alternatively, the lead agency may wish to consider using the California Air Resources Board (CARB) approved URBEMIS 2007 Model. This model is available on the SCAQMD Website at: www.urbemis.com.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, that is, sources that generate or attract vehicular trips should be included in the analysis.

The SCAQMD has developed a methodology for calculating PM2.5 emissions from construction and operational activities and processes. In connection with developing PM2.5 calculation methodologies, the SCAQMD has also developed both regional and localized significance thresholds. The SCAQMD requests that the lead agency quantify PM2.5 emissions and compare the results to the recommended PM2.5 significance thresholds. Guidance for calculating PM2.5 emissions and PM2.5 significance thresholds can be found at the following internet address: http://www.aqmd.gov/ceqa/handbook/PM2_5/PM2_5.html.

In addition to analyzing regional air quality impacts the SCAQMD recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LST's can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a CEQA document. Therefore, when preparing the air quality analysis for the proposed project, it is recommended that the lead agency perform a localized significance analysis by either using the LSTs developed by the SCAQMD or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at http://www.aqmd.gov/ceqa/handbook/LST/LST.html.

It is recommended that lead agencies for projects generating or attracting vehicular trips, especially heavy-duty diesel-fueled vehicles, perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment ("Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis") can be found on the SCAQMD's CEQA web pages at the following internet address: http://www.aqmd.gov/ceqa/handbook/mobile_toxic/mobile_toxic.html. An analysis of all toxic air contaminant impacts due to the decommissioning or use of equipment potentially generating such air pollutants should also be included.

Mitigation Measures

In the event that the project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize or eliminate significant adverse air quality impacts. To assist the Lead Agency with identifying possible mitigation measures for the project, please refer to Chapter 11 of the SCAQMD CEQA Air Quality Handbook for sample air quality mitigation measures. Additional mitigation measures can be found on the SCAQMD's CEQA web pages at the following internet address: www.aqmd.gov/ceqa/handbook/mitigation/MM_intro.html Additionally, SCAQMD's Rule 403 – Fugitive Dust, and the Implementation Handbook contain numerous measures for controlling construction-related emissions that should be considered for use as CEQA mitigation if not otherwise required. Other measures to reduce air quality impacts from land use projects can be found in the SCAQMD's Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. This document can be found at the following internet address: http://www.aqmd.gov/prdas/aqguide/aqguide.html. In addition, guidance on sitting incompatible land uses can be found in the California Air Resources Board's Air Quality and Land Use Handbook: A Community Perspective, which can be found at the following internet address: http://www.arb.ca.gov/ch/handbook.pdf. Pursuant to state CEQA Guidelines §15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed.

Data Sources

SCAQMD rules and relevant air quality reports and data are available by calling the SCAQMD's Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available via the SCAQMD's World Wide Web Homepage (http://www.aqmd.gov).

The SCAQMD is willing to work with the Lead Agency to ensure that project-related emissions are accurately identified, categorized, and evaluated. Please call Daniel Garcia, Air Quality Specialist, CEQA Section, at (909) 396-3304 if you have any questions regarding this letter.

Sincerely,

Steve Smith

Steve Smith, Ph.D.
Program Supervisor, CEQA Section
Planning, Rule Development and Area Sources

SS:DG:AK
LAC081001-01AK
Control Number

DEPARTMENT OF TRANSPORTATION
DISTRICT 7, OFFICE OF PUBLIC
TRANSPORTATION AND REGIONAL PLANNING
IGR/CEQA BRANCH
100 SOUTH MAIN STREET
LOS ANGELES, CA 90012
PHONE (213) 897-6696
FAX (213) 897-1337

Flex your power!
Be energy efficient!

October 14, 2008

IGR/CEQA NOP CS/081008
City of Pasadena
16 East California Project
Vic. LA-110-31.17, SCH# 2008101002

Mr. Erim Clark
City of Pasadena
Planning and Land Development
100 North Garfield Avenue, Room S116
Pasadena, CA 91109

Dear Mr. Clark:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Notice of Preparation (NOP) for the 16 East California Project. The proposed project is an approximately 113,200 gross sq. ft. office building. The project site is located at the southeast corner of Fair Oaks Avenue and California Boulevard in the City of Pasadena. Based on the information received, we have the following comments:

A traffic study will be needed to evaluate the project's traffic impact on the State transportation system including, but not limited to an analysis of SR-110 Pasadena Freeway and Arroyo Parkway, SR-110 Pasadena Freeway at Fair Oaks Avenue northbound off ramp and southbound on ramp and mainline freeway, the SR-134 Ventura Freeway at Orange Grove Boulevard on and off-ramps and mainline freeway, SR-134 and the I-710 freeway connector ramp and the mainline I-210 Foothill Freeway.
The traffic study should include, but not be limited to:

- Trip generation, trip distribution, mode choice, and trip assignment.
- Traffic volumes and level-of-service calculations will be needed for major intersections and for affected freeway on/off-ramps. The traffic analysis will need to include existing, project, cumulative, and project plus cumulative traffic analysis.

We recommend the implementation of a fair-share funding program on a pro rata basis to be used for traffic improvement projects resulting in additional trips generated by the project along with all other proposed and approved projects in the area. Any identified traffic mitigation measures will need to be fully discussed.

We recommend that construction related truck trips on State highways be limited to off-peak commute periods. Transport of over-size or over-weight vehicles on State highways will need a Caltrans Transportation Permit.

If you have any questions, you may reach me at (213) 897-6696 and please refer to our record number 081008/CS.

Sincerely,

Elmer Alvarez

ELMER ALVAREZ
IGR/CEQA Program Manager
Office of Regional Planning

cc: Scott Morgan, State Clearinghouse

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
www.nahc.ca.gov
ds_nahc@pacbell.net

October 20, 2008

Ms. Erin Clark, Associate Planner
CITY OF PASADENA
100 North Garfield Avenue, S116
Pasadena, CA 91109

Re: SCH# 2008101002 CEQA Notice of Preparation (NOP) draft Environmental Impact Report (DEIR) for **the 16 East California Project** City of Pasadena; Los Angeles County, California

Dear Ms. Claark:

Thank you for the opportunity to comment on the above-referenced document. The Native American Heritage Commission is the state agency designated for the protection of California's Native American cultural resources. The California Environmental Quality Act (CEQA) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR per the California Code of Regulations § 15064.5(b)(c)(f) (CEQA Guidelines). In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE),' and if so, to mitigate that effect. To adequately assess the project-related impacts on historical resources, the Commission recommends the following action:

√ Contact the appropriate California Historic Resources Information Center (CHRIS). Contact information for the 'Information Center' nearest you is available from the State Office of Historic Preservation in Sacramento (916/653-7278). The record search will determine:

- If a part or the entire (APE) has been previously surveyed for cultural resources.
- If any known cultural resources have already been recorded in or adjacent to the APE.
- If the probability is low, moderate, or high that cultural resources are located in the APE.
- If a survey is required to determine whether previously unrecorded cultural resources are present.

√ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.

- The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure.
- The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.

√ The Native American Heritage Commission (NAHC) has conducted a Sacred Lands File (SLF) search of the project area and did not identify any cultural resources within 1./2 mile radius of the project site (APE). However, the NAHC has identified Native American cultural sites in proximity to the APE. A local tribe may be the only source of information about a Native American cultural resource. Therefore, provided is information on tribal contacts that are culturally affiliated to the project location who may have information on cultural resources in or near the APE. Also, we recommend that you contact the Native American contacts on the attached list to get their input on the effect of potential project (e.g. APE) impact. As noted above, a culturally-affiliated Native American tribe or person will be the only source of information about the existence of a cultural resource.

√ Also, lack of surface evidence of archeological resources does not preclude their subsurface existence.

- Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5 (f)of the California Code of Regulations (CEQA Guidelines). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, is recommended should monitor all ground-disturbing activities.
- Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.

0√ Lead agencies should include provisions for discovery of Native American human remains or unmarked cemeteries in their mitigations plans.

- CEQA Guidelines §15064.5(d) requires the lead agency to work with the Native Americans identified by this Commission if the Initial Study identifies the presence or likely presence of Native American human remains within the APE. CEQA Guidelines provide for agreements with Native American groups, identified by the NAHE, to ensure the appropriate and dignified treatment of Native American human remains and any associated grave goods.
- Health and Safety Code §7050.5, Public Resources Code §5097.98 and CEQA Guidelines §15064.5(d) mandate procedures to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

√ Lead agencies should consider avoidance, as defined in CEQA Guidelines §15370 when significant cultural resources are discovered during the course of project planning or execution.

Please feel free to contact me at (916) 653-6251 if you have any questions.

Sincerely,

Dave Singleton
Program Analyst

Attachment: Native American Contact List.

Cc: State Clearinghouse

Native American Contacts
Los Angeles County
October 20, 2008

Ti'At Society
Cindi Alvitre
6515 E. Seaside Walk, #C Gabrielino
Long Beach , CA 90803
calvitre@yahoo.com
(714) 504-2468 Cell

Gabrielino Tongva Indians of California Tribal Council
Robert Dorame, Tribal Chair/Cultural Resources
P.O. Box 490 Gabrielino Tongva
Bellflower , CA 90707
gtongva@verizon.net
562-761-6417 - voice
562-925-7989 - fax

Tongva Ancestral Territorial Tribal Nation
John Tommy Rosas, Tribal Admin.
, Gabrielino Tongva
tattnlaw@gmail.com
310-570-6567

Gabrieleno/Tongva San Gabriel Band of Mission
Anthony Morales, Chairperson
PO Box 693 Gabrielino Tongva
San Gabriel , CA 91778
ChiefRBwife@aol.com
(626) 286-1632
(626) 286-1758 - Home
(626) 286-1262 Fax

Gabrielino/Tongva Council / Gabrielino Tongva Nation
Sam Dunlap, Tribal Secretary
761 Terminal Street; Bldg 1, 2nd floor Gabrielino Tongva
Los Angeles , CA 90021
office @tongvatribe.net
(213) 489-5001 - Office
(909) 262-9351 - cell
(213) 489-5002 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2008101002; CEQA Notice of Preparation (NOP) and draft Environmental Impact Report (DEIR) for the 16 East California Project; City of Pasadena; Los Angeles County, California.

Appendix B

Air Quality Assessment Worksheets

16 E. CALIFORNIA PROJECT

Environmental Impact Report
Appendix A

Air Quality Assessment Files

Provided by PCR Services Corporation

February 2009

Appendix A–1

- Construction Emissions
    - URBEMIS2007 Output Files

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: V:\AQNOISE DIVISION\Active Projects\Cal Fair Oaks Pasadena\Urbemis\Cal Fair Oaks Urbemis.urb924

Project Name: Pasadena Cal Fair Oaks

Project Location: Los Angeles County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2009 TOTALS (lbs/day unmitigated)	11.28	129.22	54.57	0.11	20.40	5.79	26.18	4.31	5.32	9.63	15,813.62
2009 TOTALS (lbs/day mitigated)	11.28	129.22	54.57	0.11	20.40	5.79	26.18	4.31	5.32	9.63	15,813.62
2010 TOTALS (lbs/day unmitigated)	44.33	47.87	33.50	0.01	0.06	3.03	3.09	0.02	2.78	2.81	6,422.31
2010 TOTALS (lbs/day mitigated)	44.33	47.87	33.50	0.01	0.06	3.03	3.09	0.02	2.78	2.81	6,422.31

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	0.83	0.77	2.18	0.00	0.01	0.01	908.41

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	9.51	13.11	116.93	0.12	19.71	3.84	11,740.93

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	10.34	13.88	119.11	0.12	19.72	3.85	12,649.34

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 4/1/2009-4/30/2009 Active Days: 22	2.60	24.76	12.05	0.01	4.32	1.23	5.55	0.90	1.13	2.04	2,737.79
Demolition 04/01/2009-04/30/2009	2.60	24.76	12.05	0.01	4.32	1.23	5.55	0.90	1.13	2.04	2,737.79
Fugitive Dust	0.00	0.00	0.00	0.00	4.28	0.00	4.28	0.89	0.00	0.89	0.00
Demo Off Road Diesel	1.91	16.48	7.57	0.00	0.00	0.87	0.87	0.00	0.80	0.80	1,612.67
Demo On Road Diesel	0.65	8.21	3.32	0.01	0.03	0.36	0.39	0.01	0.33	0.34	1,000.73
Demo Worker Trips	0.04	0.07	1.16	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.39
Time Slice 5/1/2009-6/30/2009 Active Days: 43	11.28	**129.22**	**54.57**	**0.11**	**20.40**	**5.79**	**26.18**	**4.31**	**5.32**	**9.63**	**15,813.62**
Mass Grading 05/01/2009-06/30/2009	11.28	129.22	54.57	0.11	20.40	5.79	26.18	4.31	5.32	9.63	15,813.62
Mass Grading Dust	0.00	0.00	0.00	0.00	20.00	0.00	20.00	4.18	0.00	4.18	0.00
Mass Grading Off Road Diesel	3.70	34.03	14.17	0.00	0.00	1.65	1.65	0.00	1.52	1.52	4,012.86
Mass Grading On Road Diesel	7.51	95.07	38.37	0.11	0.39	4.13	4.51	0.13	3.80	3.93	11,583.08
Mass Grading Worker Trips	0.07	0.12	2.03	0.00	0.01	0.01	0.02	0.00	0.00	0.01	217.67
Time Slice 7/1/2009-8/31/2009 Active Days: 44	5.11	40.66	22.66	0.02	0.09	2.22	2.31	0.03	2.04	2.07	4,715.98
Fine Grading 07/01/2009-08/31/2009	5.11	40.66	22.66	0.02	0.09	2.22	2.31	0.03	2.04	2.07	4,715.98
Fine Grading Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Off Road Diesel	3.63	23.10	12.17	0.00	0.00	1.46	1.46	0.00	1.34	1.34	2,228.44
Fine Grading On Road Diesel	1.37	17.35	7.00	0.02	0.07	0.75	0.82	0.02	0.69	0.72	2,114.38
Fine Grading Worker Trips	0.11	0.21	3.48	0.00	0.02	0.01	0.03	0.01	0.01	0.01	373.16
Time Slice 9/1/2009-12/31/2009 Active Days: 88	6.53	42.38	29.35	0.01	0.05	2.53	2.58	0.02	2.32	2.34	5,683.86
Building 09/01/2009-10/31/2010	6.53	42.38	29.35	0.01	0.05	2.53	2.58	0.02	2.32	2.34	5,683.86
Building Off Road Diesel	6.13	40.51	19.82	0.00	0.00	2.44	2.44	0.00	2.25	2.25	4,550.83
Building Vendor Trips	0.12	1.36	1.12	0.00	0.01	0.06	0.07	0.00	0.05	0.06	231.89
Building Worker Trips	0.28	0.51	8.41	0.01	0.04	0.02	0.07	0.02	0.02	0.04	901.15
Time Slice 1/1/2010-7/30/2010 Active Days: 151	6.17	39.94	28.23	0.01	0.05	2.36	2.41	0.02	2.17	2.18	5,683.57

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Building 09/01/2009-10/31/2010	6.17	39.94	28.23	0.01	0.05	2.36	2.41	0.02	2.17	2.18	5,683.57
Building Off Road Diesel	5.80	38.23	19.31	0.00	0.00	2.28	2.28	0.00	2.10	2.10	4,550.83
Building Vendor Trips	0.11	1.24	1.04	0.00	0.01	0.05	0.06	0.00	0.05	0.05	231.90
Building Worker Trips	0.25	0.47	7.88	0.01	0.04	0.02	0.07	0.02	0.02	0.04	900.84
Time Slice 8/2/2010-10/15/2010 Active Days: 55	42.93	39.97	28.69	0.01	0.05	2.36	2.41	0.02	2.17	2.19	5,736.89
Building 09/01/2009-10/31/2010	6.17	39.94	28.23	0.01	0.05	2.36	2.41	0.02	2.17	2.18	5,683.57
Building Off Road Diesel	5.80	38.23	19.31	0.00	0.00	2.28	2.28	0.00	2.10	2.10	4,550.83
Building Vendor Trips	0.11	1.24	1.04	0.00	0.01	0.05	0.06	0.00	0.05	0.05	231.90
Building Worker Trips	0.25	0.47	7.88	0.01	0.04	0.02	0.07	0.02	0.02	0.04	900.84
Coating 08/01/2010-10/31/2010	36.76	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.32
Architectural Coating	36.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.32
Time Slice 10/18/2010-10/29/2010 Active Days: 10	**44.33**	47.87	33.50	0.01	0.06	3.03	3.09	0.02	2.78	2.81	6,422.31
Asphalt 10/16/2010-10/31/2010	1.40	7.90	4.80	0.00	0.01	0.67	0.68	0.00	0.62	0.62	685.42
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.22	7.35	4.05	0.00	0.00	0.65	0.65	0.00	0.59	0.59	554.09
Paving On Road Diesel	0.04	0.52	0.21	0.00	0.00	0.02	0.02	0.00	0.02	0.02	69.16
Paving Worker Trips	0.02	0.03	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.17
Building 09/01/2009-10/31/2010	6.17	39.94	28.23	0.01	0.05	2.36	2.41	0.02	2.17	2.18	5,683.57
Building Off Road Diesel	5.80	38.23	19.31	0.00	0.00	2.28	2.28	0.00	2.10	2.10	4,550.83
Building Vendor Trips	0.11	1.24	1.04	0.00	0.01	0.05	0.06	0.00	0.05	0.05	231.90
Building Worker Trips	0.25	0.47	7.88	0.01	0.04	0.02	0.07	0.02	0.02	0.04	900.84
Coating 08/01/2010-10/31/2010	36.76	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.32
Architectural Coating	36.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.32

Phase Assumptions

Phase: Demolition 4/1/2009 - 4/30/2009 - Default Demolition Description

Building Volume Total (cubic feet): 224100

Building Volume Daily (cubic feet): 10200

On Road Truck Travel (VMT): 236.11

Off-Road Equipment:

1 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 1 hours per day

1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 6 hours per day

Phase: Fine Grading 7/1/2009 - 8/31/2009 - Default Fine Site Grading/Excavation Description

Total Acres Disturbed: 0

Maximum Daily Acreage Disturbed: 0

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 498.86

Off-Road Equipment:

1 Air Compressors (106 hp) operating at a 0.48 load factor for 8 hours per day

1 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 8 hours per day

2 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day

1 Forklifts (145 hp) operating at a 0.3 load factor for 8 hours per day

1 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day

2 Plate Compactors (8 hp) operating at a 0.43 load factor for 8 hours per day

1 Pumps (53 hp) operating at a 0.74 load factor for 8 hours per day

1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day

2 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Mass Grading 5/1/2009 - 6/30/2009 - Default Mass Site Grading/Excavation Description

Total Acres Disturbed: 1

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Maximum Daily Acreage Disturbed: 1
Fugitive Dust Level of Detail: Default
20 lbs per acre-day
On Road Truck Travel (VMT): 2732.89
Off-Road Equipment:
1 Bore/Drill Rigs (291 hp) operating at a 0.75 load factor for 8 hours per day
1 Cranes (399 hp) operating at a 0.43 load factor for 2 hours per day
1 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
1 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day
1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
1 Water Trucks (189 hp) operating at a 0.5 load factor for 2 hours per day

Phase: Paving 10/16/2010 - 10/31/2010 - Default Paving Description
Acres to be Paved: 0.5
Off-Road Equipment:
1 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day
1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 9/1/2009 - 10/31/2010 - Default Building Construction Description
Off-Road Equipment:
1 Aerial Lifts (60 hp) operating at a 0.46 load factor for 8 hours per day
2 Air Compressors (106 hp) operating at a 0.48 load factor for 8 hours per day
1 Bore/Drill Rigs (291 hp) operating at a 0.75 load factor for 8 hours per day
1 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 8 hours per day
1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day
2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
1 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day
1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
2 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 8/1/2010 - 10/31/2010 - Default Architectural Coating Description
Rule: Residential Interior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 100
Rule: Residential Interior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 50
Rule: Residential Exterior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 250
Rule: Residential Exterior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 100
Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250
Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 4/1/2009-4/30/2009 Active Days: 22	2.60	24.76	12.05	0.01	4.32	1.23	5.55	0.90	1.13	2.04	2,737.79
Demolition 04/01/2009-04/30/2009	2.60	24.76	12.05	0.01	4.32	1.23	5.55	0.90	1.13	2.04	2,737.79
Fugitive Dust	0.00	0.00	0.00	0.00	4.28	0.00	4.28	0.89	0.00	0.89	0.00
Demo Off Road Diesel	1.91	16.48	7.57	0.00	0.00	0.87	0.87	0.00	0.80	0.80	1,612.67
Demo On Road Diesel	0.65	8.21	3.32	0.01	0.03	0.36	0.39	0.01	0.33	0.34	1,000.73
Demo Worker Trips	0.04	0.07	1.16	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.39
Time Slice 5/1/2009-6/30/2009 Active Days: 43	**11.28**	**129.22**	**54.57**	**0.11**	**20.40**	**5.79**	**26.18**	**4.31**	**5.32**	**9.63**	**15,813.62**
Mass Grading 05/01/2009-06/30/2009	11.28	129.22	54.57	0.11	20.40	5.79	26.18	4.31	5.32	9.63	15,813.62
Mass Grading Dust	0.00	0.00	0.00	0.00	20.00	0.00	20.00	4.18	0.00	4.18	0.00
Mass Grading Off Road Diesel	3.70	34.03	14.17	0.00	0.00	1.65	1.65	0.00	1.52	1.52	4,012.86
Mass Grading On Road Diesel	7.51	95.07	38.37	0.11	0.39	4.13	4.51	0.13	3.80	3.93	11,583.08
Mass Grading Worker Trips	0.07	0.12	2.03	0.00	0.01	0.01	0.02	0.00	0.00	0.01	217.67
Time Slice 7/1/2009-8/31/2009 Active Days: 44	5.11	40.66	22.66	0.02	0.09	2.22	2.31	0.03	2.04	2.07	4,715.98
Fine Grading 07/01/2009-08/31/2009	5.11	40.66	22.66	0.02	0.09	2.22	2.31	0.03	2.04	2.07	4,715.98

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Fine Grading Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Off Road Diesel	3.63	23.10	12.17	0.00	0.00	1.46	1.46	0.00	1.34	1.34	2,228.44
Fine Grading On Road Diesel	1.37	17.35	7.00	0.02	0.07	0.75	0.82	0.02	0.69	0.72	2,114.38
Fine Grading Worker Trips	0.11	0.21	3.48	0.00	0.02	0.01	0.03	0.01	0.01	0.01	373.16
Time Slice 9/1/2009-12/31/2009 Active Days: 88	6.53	42.38	29.35	0.01	0.05	2.53	2.58	0.02	2.32	2.34	5,683.86
Building 09/01/2009-10/31/2010	6.53	42.38	29.35	0.01	0.05	2.53	2.58	0.02	2.32	2.34	5,683.86
Building Off Road Diesel	6.13	40.51	19.82	0.00	0.00	2.44	2.44	0.00	2.25	2.25	4,550.83
Building Vendor Trips	0.12	1.36	1.12	0.00	0.01	0.06	0.07	0.00	0.05	0.06	231.89
Building Worker Trips	0.28	0.51	8.41	0.01	0.04	0.02	0.07	0.02	0.02	0.04	901.15
Time Slice 1/1/2010-7/30/2010 Active Days: 151	6.17	39.94	28.23	0.01	0.05	2.36	2.41	0.02	2.17	2.18	5,683.57
Building 09/01/2009-10/31/2010	6.17	39.94	28.23	0.01	0.05	2.36	2.41	0.02	2.17	2.18	5,683.57
Building Off Road Diesel	5.80	38.23	19.31	0.00	0.00	2.28	2.28	0.00	2.10	2.10	4,550.83
Building Vendor Trips	0.11	1.24	1.04	0.00	0.01	0.05	0.06	0.00	0.05	0.05	231.90
Building Worker Trips	0.25	0.47	7.88	0.01	0.04	0.02	0.07	0.02	0.02	0.04	900.84
Time Slice 8/2/2010-10/15/2010 Active Days: 55	42.93	39.97	28.69	0.01	0.05	2.36	2.41	0.02	2.17	2.19	5,736.89
Building 09/01/2009-10/31/2010	6.17	39.94	28.23	0.01	0.05	2.36	2.41	0.02	2.17	2.18	5,683.57
Building Off Road Diesel	5.80	38.23	19.31	0.00	0.00	2.28	2.28	0.00	2.10	2.10	4,550.83
Building Vendor Trips	0.11	1.24	1.04	0.00	0.01	0.05	0.06	0.00	0.05	0.05	231.90
Building Worker Trips	0.25	0.47	7.88	0.01	0.04	0.02	0.07	0.02	0.02	0.04	900.84
Coating 08/01/2010-10/31/2010	36.76	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.32
Architectural Coating	36.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.32
Time Slice 10/18/2010-10/29/2010 Active Days: 10	**44.33**	47.87	33.50	0.01	0.06	3.03	3.09	0.02	2.78	2.81	6,422.31
Asphalt 10/16/2010-10/31/2010	1.40	7.90	4.80	0.00	0.01	0.67	0.68	0.00	0.62	0.62	685.42
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.22	7.35	4.05	0.00	0.00	0.65	0.65	0.00	0.59	0.59	554.09
Paving On Road Diesel	0.04	0.52	0.21	0.00	0.00	0.02	0.02	0.00	0.02	0.02	69.16
Paving Worker Trips	0.02	0.03	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.17
Building 09/01/2009-10/31/2010	6.17	39.94	28.23	0.01	0.05	2.36	2.41	0.02	2.17	2.18	5,683.57
Building Off Road Diesel	5.80	38.23	19.31	0.00	0.00	2.28	2.28	0.00	2.10	2.10	4,550.83
Building Vendor Trips	0.11	1.24	1.04	0.00	0.01	0.05	0.06	0.00	0.05	0.05	231.90
Building Worker Trips	0.25	0.47	7.88	0.01	0.04	0.02	0.07	0.02	0.02	0.04	900.84
Coating 08/01/2010-10/31/2010	36.76	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.32
Architectural Coating	36.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.32

Construction Related Mitigation Measures

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: V:\AQNOISE DIVISION\Active Projects\Cal Fair Oaks Pasadena\Urbemis\Cal Fair Oaks Urbemis.urb924

Project Name: Pasadena Cal Fair Oaks

Project Location: Los Angeles County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2009 TOTALS (lbs/day unmitigated)	11.28	129.22	54.57	0.11	20.40	5.79	26.18	4.31	5.32	9.63	15,813.62
2009 TOTALS (lbs/day mitigated)	11.28	129.22	54.57	0.11	20.40	5.79	26.18	4.31	5.32	9.63	15,813.62
2010 TOTALS (lbs/day unmitigated)	44.33	47.87	33.50	0.01	0.06	3.03	3.09	0.02	2.78	2.81	6,422.31
2010 TOTALS (lbs/day mitigated)	44.33	47.87	33.50	0.01	0.06	3.03	3.09	0.02	2.78	2.81	6,422.31

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	0.71	0.75	0.63	0.00	0.00	0.00	905.60

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	10.32	15.81	111.42	0.10	19.71	3.84	10,634.76

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	11.03	16.56	112.05	0.10	19.71	3.84	11,540.36

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 4/1/2009-4/30/2009 Active Days: 22	2.60	24.76	12.05	0.01	4.32	1.23	5.55	0.90	1.13	2.04	2,737.79
Demolition 04/01/2009-04/30/2009	2.60	24.76	12.05	0.01	4.32	1.23	5.55	0.90	1.13	2.04	2,737.79
Fugitive Dust	0.00	0.00	0.00	0.00	4.28	0.00	4.28	0.89	0.00	0.89	0.00
Demo Off Road Diesel	1.91	16.48	7.57	0.00	0.00	0.87	0.87	0.00	0.80	0.80	1,612.67
Demo On Road Diesel	0.65	8.21	3.32	0.01	0.03	0.36	0.39	0.01	0.33	0.34	1,000.73
Demo Worker Trips	0.04	0.07	1.16	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.39
Time Slice 5/1/2009-6/30/2009 Active Days: 43	11.28	**129.22**	**54.57**	**0.11**	**20.40**	**5.79**	**26.18**	**4.31**	**5.32**	**9.63**	**15,813.62**
Mass Grading 05/01/2009-06/30/2009	11.28	129.22	54.57	0.11	20.40	5.79	26.18	4.31	5.32	9.63	15,813.62
Mass Grading Dust	0.00	0.00	0.00	0.00	20.00	0.00	20.00	4.18	0.00	4.18	0.00
Mass Grading Off Road Diesel	3.70	34.03	14.17	0.00	0.00	1.65	1.65	0.00	1.52	1.52	4,012.86
Mass Grading On Road Diesel	7.51	95.07	38.37	0.11	0.39	4.13	4.51	0.13	3.80	3.93	11,583.08
Mass Grading Worker Trips	0.07	0.12	2.03	0.00	0.01	0.01	0.02	0.00	0.00	0.01	217.67
Time Slice 7/1/2009-8/31/2009 Active Days: 44	5.11	40.66	22.66	0.02	0.09	2.22	2.31	0.03	2.04	2.07	4,715.98
Fine Grading 07/01/2009-08/31/2009	5.11	40.66	22.66	0.02	0.09	2.22	2.31	0.03	2.04	2.07	4,715.98
Fine Grading Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Off Road Diesel	3.63	23.10	12.17	0.00	0.00	1.46	1.46	0.00	1.34	1.34	2,228.44
Fine Grading On Road Diesel	1.37	17.35	7.00	0.02	0.07	0.75	0.82	0.02	0.69	0.72	2,114.38
Fine Grading Worker Trips	0.11	0.21	3.48	0.00	0.02	0.01	0.03	0.01	0.01	0.01	373.16
Time Slice 9/1/2009-12/31/2009 Active Days: 88	6.53	42.38	29.35	0.01	0.05	2.53	2.58	0.02	2.32	2.34	5,683.86
Building 09/01/2009-10/31/2010	6.53	42.38	29.35	0.01	0.05	2.53	2.58	0.02	2.32	2.34	5,683.86
Building Off Road Diesel	6.13	40.51	19.82	0.00	0.00	2.44	2.44	0.00	2.25	2.25	4,550.83
Building Vendor Trips	0.12	1.36	1.12	0.00	0.01	0.06	0.07	0.00	0.05	0.06	231.89
Building Worker Trips	0.28	0.51	8.41	0.01	0.04	0.02	0.07	0.02	0.02	0.04	901.15
Time Slice 1/1/2010-7/30/2010 Active Days: 151	6.17	39.94	28.23	0.01	0.05	2.36	2.41	0.02	2.17	2.18	5,683.57

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Building 09/01/2009-10/31/2010	6.17	39.94	28.23	0.01	0.05	2.36	2.41	0.02	2.17	2.18	5,683.57
Building Off Road Diesel	5.80	38.23	19.31	0.00	0.00	2.28	2.28	0.00	2.10	2.10	4,550.83
Building Vendor Trips	0.11	1.24	1.04	0.00	0.01	0.05	0.06	0.00	0.05	0.05	231.90
Building Worker Trips	0.25	0.47	7.88	0.01	0.04	0.02	0.07	0.02	0.02	0.04	900.84
Time Slice 8/2/2010-10/15/2010 Active Days: 55	42.93	39.97	28.69	0.01	0.05	2.36	2.41	0.02	2.17	2.19	5,736.89
Building 09/01/2009-10/31/2010	6.17	39.94	28.23	0.01	0.05	2.36	2.41	0.02	2.17	2.18	5,683.57
Building Off Road Diesel	5.80	38.23	19.31	0.00	0.00	2.28	2.28	0.00	2.10	2.10	4,550.83
Building Vendor Trips	0.11	1.24	1.04	0.00	0.01	0.05	0.06	0.00	0.05	0.05	231.90
Building Worker Trips	0.25	0.47	7.88	0.01	0.04	0.02	0.07	0.02	0.02	0.04	900.84
Coating 08/01/2010-10/31/2010	36.76	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.32
Architectural Coating	36.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.32
Time Slice 10/18/2010-10/29/2010 Active Days: 10	**44.33**	47.87	33.50	0.01	0.06	3.03	3.09	0.02	2.78	2.81	6,422.31
Asphalt 10/16/2010-10/31/2010	1.40	7.90	4.80	0.00	0.01	0.67	0.68	0.00	0.62	0.62	685.42
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.22	7.35	4.05	0.00	0.00	0.65	0.65	0.00	0.59	0.59	554.09
Paving On Road Diesel	0.04	0.52	0.21	0.00	0.00	0.02	0.02	0.00	0.02	0.02	69.16
Paving Worker Trips	0.02	0.03	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.17
Building 09/01/2009-10/31/2010	6.17	39.94	28.23	0.01	0.05	2.36	2.41	0.02	2.17	2.18	5,683.57
Building Off Road Diesel	5.80	38.23	19.31	0.00	0.00	2.28	2.28	0.00	2.10	2.10	4,550.83
Building Vendor Trips	0.11	1.24	1.04	0.00	0.01	0.05	0.06	0.00	0.05	0.05	231.90
Building Worker Trips	0.25	0.47	7.88	0.01	0.04	0.02	0.07	0.02	0.02	0.04	900.84
Coating 08/01/2010-10/31/2010	36.76	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.32
Architectural Coating	36.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.32

Phase Assumptions

Phase: Demolition 4/1/2009 - 4/30/2009 - Default Demolition Description

Building Volume Total (cubic feet): 224100

Building Volume Daily (cubic feet): 10200

On Road Truck Travel (VMT): 236.11

Off-Road Equipment:

1 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 1 hours per day

1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 6 hours per day

Phase: Fine Grading 7/1/2009 - 8/31/2009 - Default Fine Site Grading/Excavation Description

Total Acres Disturbed: 0

Maximum Daily Acreage Disturbed: 0

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 498.86

Off-Road Equipment:

1 Air Compressors (106 hp) operating at a 0.48 load factor for 8 hours per day

1 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 8 hours per day

2 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day

1 Forklifts (145 hp) operating at a 0.3 load factor for 8 hours per day

1 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day

2 Plate Compactors (8 hp) operating at a 0.43 load factor for 8 hours per day

1 Pumps (53 hp) operating at a 0.74 load factor for 8 hours per day

1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day

2 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Mass Grading 5/1/2009 - 6/30/2009 - Default Mass Site Grading/Excavation Description

Total Acres Disturbed: 1

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Maximum Daily Acreage Disturbed: 1
Fugitive Dust Level of Detail: Default
20 lbs per acre-day
On Road Truck Travel (VMT): 2732.89
Off-Road Equipment:
1 Bore/Drill Rigs (291 hp) operating at a 0.75 load factor for 8 hours per day
1 Cranes (399 hp) operating at a 0.43 load factor for 2 hours per day
1 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
1 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day
1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
1 Water Trucks (189 hp) operating at a 0.5 load factor for 2 hours per day

Phase: Paving 10/16/2010 - 10/31/2010 - Default Paving Description
Acres to be Paved: 0.5
Off-Road Equipment:
1 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day
1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 9/1/2009 - 10/31/2010 - Default Building Construction Description
Off-Road Equipment:
1 Aerial Lifts (60 hp) operating at a 0.46 load factor for 8 hours per day
2 Air Compressors (106 hp) operating at a 0.48 load factor for 8 hours per day
1 Bore/Drill Rigs (291 hp) operating at a 0.75 load factor for 8 hours per day
1 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 8 hours per day
1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day
2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
1 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day
1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
2 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 8/1/2010 - 10/31/2010 - Default Architectural Coating Description
Rule: Residential Interior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 100
Rule: Residential Interior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 50
Rule: Residential Exterior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 250
Rule: Residential Exterior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 100
Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250
Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 4/1/2009-4/30/2009 Active Days: 22	2.60	24.76	12.05	0.01	4.32	1.23	5.55	0.90	1.13	2.04	2,737.79
Demolition 04/01/2009-04/30/2009	2.60	24.76	12.05	0.01	4.32	1.23	5.55	0.90	1.13	2.04	2,737.79
Fugitive Dust	0.00	0.00	0.00	0.00	4.28	0.00	4.28	0.89	0.00	0.89	0.00
Demo Off Road Diesel	1.91	16.48	7.57	0.00	0.00	0.87	0.87	0.00	0.80	0.80	1,612.67
Demo On Road Diesel	0.65	8.21	3.32	0.01	0.03	0.36	0.39	0.01	0.33	0.34	1,000.73
Demo Worker Trips	0.04	0.07	1.16	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.39
Time Slice 5/1/2009-6/30/2009 Active Days: 43	**11.28**	**129.22**	**54.57**	**0.11**	**20.40**	**5.79**	**26.18**	**4.31**	**5.32**	**9.63**	**15,813.62**
Mass Grading 05/01/2009-06/30/2009	11.28	129.22	54.57	0.11	20.40	5.79	26.18	4.31	5.32	9.63	15,813.62
Mass Grading Dust	0.00	0.00	0.00	0.00	20.00	0.00	20.00	4.18	0.00	4.18	0.00
Mass Grading Off Road Diesel	3.70	34.03	14.17	0.00	0.00	1.65	1.65	0.00	1.52	1.52	4,012.86
Mass Grading On Road Diesel	7.51	95.07	38.37	0.11	0.39	4.13	4.51	0.13	3.80	3.93	11,583.08
Mass Grading Worker Trips	0.07	0.12	2.03	0.00	0.01	0.01	0.02	0.00	0.00	0.01	217.67
Time Slice 7/1/2009-8/31/2009 Active Days: 44	5.11	40.66	22.66	0.02	0.09	2.22	2.31	0.03	2.04	2.07	4,715.98
Fine Grading 07/01/2009-08/31/2009	5.11	40.66	22.66	0.02	0.09	2.22	2.31	0.03	2.04	2.07	4,715.98

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Fine Grading Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Off Road Diesel	3.63	23.10	12.17	0.00	0.00	1.46	1.46	0.00	1.34	1.34	2,228.44
Fine Grading On Road Diesel	1.37	17.35	7.00	0.02	0.07	0.75	0.82	0.02	0.69	0.72	2,114.38
Fine Grading Worker Trips	0.11	0.21	3.48	0.00	0.02	0.01	0.03	0.01	0.01	0.01	373.16
Time Slice 9/1/2009-12/31/2009 Active Days: 88	6.53	42.38	29.35	0.01	0.05	2.53	2.58	0.02	2.32	2.34	5,683.86
Building 09/01/2009-10/31/2010	6.53	42.38	29.35	0.01	0.05	2.53	2.58	0.02	2.32	2.34	5,683.86
Building Off Road Diesel	6.13	40.51	19.82	0.00	0.00	2.44	2.44	0.00	2.25	2.25	4,550.83
Building Vendor Trips	0.12	1.36	1.12	0.00	0.01	0.06	0.07	0.00	0.05	0.06	231.89
Building Worker Trips	0.28	0.51	8.41	0.01	0.04	0.02	0.07	0.02	0.02	0.04	901.15
Time Slice 1/1/2010-7/30/2010 Active Days: 151	6.17	39.94	28.23	0.01	0.05	2.36	2.41	0.02	2.17	2.18	5,683.57
Building 09/01/2009-10/31/2010	6.17	39.94	28.23	0.01	0.05	2.36	2.41	0.02	2.17	2.18	5,683.57
Building Off Road Diesel	5.80	38.23	19.31	0.00	0.00	2.28	2.28	0.00	2.10	2.10	4,550.83
Building Vendor Trips	0.11	1.24	1.04	0.00	0.01	0.05	0.06	0.00	0.05	0.05	231.90
Building Worker Trips	0.25	0.47	7.88	0.01	0.04	0.02	0.07	0.02	0.02	0.04	900.84
Time Slice 8/2/2010-10/15/2010 Active Days: 55	42.93	39.97	28.69	0.01	0.05	2.36	2.41	0.02	2.17	2.19	5,736.89
Building 09/01/2009-10/31/2010	6.17	39.94	28.23	0.01	0.05	2.36	2.41	0.02	2.17	2.18	5,683.57
Building Off Road Diesel	5.80	38.23	19.31	0.00	0.00	2.28	2.28	0.00	2.10	2.10	4,550.83
Building Vendor Trips	0.11	1.24	1.04	0.00	0.01	0.05	0.06	0.00	0.05	0.05	231.90
Building Worker Trips	0.25	0.47	7.88	0.01	0.04	0.02	0.07	0.02	0.02	0.04	900.84
Coating 08/01/2010-10/31/2010	36.76	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.32
Architectural Coating	36.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.32
Time Slice 10/18/2010-10/29/2010 Active Days: 10	**44.33**	47.87	33.50	0.01	0.06	3.03	3.09	0.02	2.78	2.81	6,422.31
Asphalt 10/16/2010-10/31/2010	1.40	7.90	4.80	0.00	0.01	0.67	0.68	0.00	0.62	0.62	685.42
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.22	7.35	4.05	0.00	0.00	0.65	0.65	0.00	0.59	0.59	554.09
Paving On Road Diesel	0.04	0.52	0.21	0.00	0.00	0.02	0.02	0.00	0.02	0.02	69.16
Paving Worker Trips	0.02	0.03	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.17
Building 09/01/2009-10/31/2010	6.17	39.94	28.23	0.01	0.05	2.36	2.41	0.02	2.17	2.18	5,683.57
Building Off Road Diesel	5.80	38.23	19.31	0.00	0.00	2.28	2.28	0.00	2.10	2.10	4,550.83
Building Vendor Trips	0.11	1.24	1.04	0.00	0.01	0.05	0.06	0.00	0.05	0.05	231.90
Building Worker Trips	0.25	0.47	7.88	0.01	0.04	0.02	0.07	0.02	0.02	0.04	900.84
Coating 08/01/2010-10/31/2010	36.76	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.32
Architectural Coating	36.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.32

Construction Related Mitigation Measures

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: V:\AQNOISE DIVISION\Active Projects\Cal Fair Oaks Pasadena\Urbemis\Cal Fair Oaks Urbemis.urb924

Project Name: Pasadena Cal Fair Oaks

Project Location: Los Angeles County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2009 TOTALS (tons/year unmitigated)	0.67	5.81	3.10	0.00	0.49	0.30	0.79	0.10	0.27	0.38	723.95
2009 TOTALS (tons/year mitigated)	0.67	5.81	3.10	0.00	0.49	0.30	0.79	0.10	0.27	0.38	723.95
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010 TOTALS (tons/year unmitigated)	1.87	4.35	3.09	0.00	0.01	0.26	0.26	0.00	0.24	0.24	618.99
2010 TOTALS (tons/year mitigated)	1.87	4.35	3.09	0.00	0.01	0.26	0.26	0.00	0.24	0.24	618.99
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	0.15	0.14	0.40	0.00	0.00	0.00	165.78

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	1.79	2.56	21.00	0.02	3.60	0.70	2,075.43

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	1.94	2.70	21.40	0.02	3.60	0.70	2,241.21

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2009	0.67	5.81	3.10	0.00	0.49	0.30	0.79	0.10	0.27	0.38	723.95
Demolition 04/01/2009-04/30/2009	0.03	0.27	0.13	0.00	0.05	0.01	0.06	0.01	0.01	0.02	30.12
Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demo Off Road Diesel	0.02	0.18	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01	17.74
Demo On Road Diesel	0.01	0.09	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.01
Demo Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.37
Mass Grading 05/01/2009-06/30/2009	0.24	2.78	1.17	0.00	0.44	0.12	0.56	0.09	0.11	0.21	339.99
Mass Grading Dust	0.00	0.00	0.00	0.00	0.43	0.00	0.43	0.09	0.00	0.09	0.00
Mass Grading Off Road Diesel	0.08	0.73	0.30	0.00	0.00	0.04	0.04	0.00	0.03	0.03	86.28
Mass Grading On Road Diesel	0.16	2.04	0.83	0.00	0.01	0.09	0.10	0.00	0.08	0.08	249.04
Mass Grading Worker Trips	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.68
Fine Grading 07/01/2009-08/31/2009	0.11	0.89	0.50	0.00	0.00	0.05	0.05	0.00	0.04	0.05	103.75
Fine Grading Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Off Road Diesel	0.08	0.51	0.27	0.00	0.00	0.03	0.03	0.00	0.03	0.03	49.03
Fine Grading On Road Diesel	0.03	0.38	0.15	0.00	0.00	0.02	0.02	0.00	0.02	0.02	46.52
Fine Grading Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.21
Building 09/01/2009-10/31/2010	0.29	1.86	1.29	0.00	0.00	0.11	0.11	0.00	0.10	0.10	250.09
Building Off Road Diesel	0.27	1.78	0.87	0.00	0.00	0.11	0.11	0.00	0.10	0.10	200.24
Building Vendor Trips	0.01	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.20
Building Worker Trips	0.01	0.02	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.65
2010	1.87	4.35	3.09	0.00	0.01	0.26	0.26	0.00	0.24	0.24	618.99
Building 09/01/2009-10/31/2010	0.67	4.31	3.05	0.00	0.01	0.25	0.26	0.00	0.23	0.24	613.83
Building Off Road Diesel	0.63	4.13	2.09	0.00	0.00	0.25	0.25	0.00	0.23	0.23	491.49
Building Vendor Trips	0.01	0.13	0.11	0.00	0.00	0.01	0.01	0.00	0.01	0.01	25.05
Building Worker Trips	0.03	0.05	0.85	0.00	0.00	0.00	0.01	0.00	0.00	0.00	97.29
Coating 08/01/2010-10/31/2010	1.19	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.73
Architectural Coating	1.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.73
Asphalt 10/16/2010-10/31/2010	0.01	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.43
Paving Off-Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.01	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.77

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Paving On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
Paving Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31

Phase Assumptions

Phase: Demolition 4/1/2009 - 4/30/2009 - Default Demolition Description
Building Volume Total (cubic feet): 224100
Building Volume Daily (cubic feet): 10200
On Road Truck Travel (VMT): 236.11
Off-Road Equipment:
1 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day
1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 1 hours per day
1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day
1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 6 hours per day

Phase: Fine Grading 7/1/2009 - 8/31/2009 - Default Fine Site Grading/Excavation Description
Total Acres Disturbed: 0
Maximum Daily Acreage Disturbed: 0
Fugitive Dust Level of Detail: Default
20 lbs per acre-day
On Road Truck Travel (VMT): 498.86
Off-Road Equipment:
1 Air Compressors (106 hp) operating at a 0.48 load factor for 8 hours per day
1 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 8 hours per day
2 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day
1 Forklifts (145 hp) operating at a 0.3 load factor for 8 hours per day
1 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day
2 Plate Compactors (8 hp) operating at a 0.43 load factor for 8 hours per day
1 Pumps (53 hp) operating at a 0.74 load factor for 8 hours per day
1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day
2 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Mass Grading 5/1/2009 - 6/30/2009 - Default Mass Site Grading/Excavation Description
Total Acres Disturbed: 1
Maximum Daily Acreage Disturbed: 1
Fugitive Dust Level of Detail: Default
20 lbs per acre-day
On Road Truck Travel (VMT): 2732.89
Off-Road Equipment:
1 Bore/Drill Rigs (291 hp) operating at a 0.75 load factor for 8 hours per day
1 Cranes (399 hp) operating at a 0.43 load factor for 2 hours per day
1 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
1 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day
1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
1 Water Trucks (189 hp) operating at a 0.5 load factor for 2 hours per day

Phase: Paving 10/16/2010 - 10/31/2010 - Default Paving Description
Acres to be Paved: 0.5
Off-Road Equipment:
1 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day
1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 9/1/2009 - 10/31/2010 - Default Building Construction Description
Off-Road Equipment:
1 Aerial Lifts (60 hp) operating at a 0.46 load factor for 8 hours per day
2 Air Compressors (106 hp) operating at a 0.48 load factor for 8 hours per day
1 Bore/Drill Rigs (291 hp) operating at a 0.75 load factor for 8 hours per day
1 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 8 hours per day
1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day
2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
1 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day
1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
2 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 8/1/2010 - 10/31/2010 - Default Architectural Coating Description
Rule: Residential Interior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 100
Rule: Residential Interior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 50
Rule: Residential Exterior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 250
Rule: Residential Exterior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 100
Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250
Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

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Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2009	0.67	5.81	3.10	0.00	0.49	0.30	0.79	0.10	0.27	0.38	723.95
Demolition 04/01/2009-04/30/2009	0.03	0.27	0.13	0.00	0.05	0.01	0.06	0.01	0.01	0.02	30.12
Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demo Off Road Diesel	0.02	0.18	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01	17.74
Demo On Road Diesel	0.01	0.09	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.01
Demo Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.37
Mass Grading 05/01/2009-06/30/2009	0.24	2.78	1.17	0.00	0.44	0.12	0.56	0.09	0.11	0.21	339.99
Mass Grading Dust	0.00	0.00	0.00	0.00	0.43	0.00	0.43	0.09	0.00	0.09	0.00
Mass Grading Off Road Diesel	0.08	0.73	0.30	0.00	0.00	0.04	0.04	0.00	0.03	0.03	86.28
Mass Grading On Road Diesel	0.16	2.04	0.83	0.00	0.01	0.09	0.10	0.00	0.08	0.08	249.04
Mass Grading Worker Trips	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.68
Fine Grading 07/01/2009-08/31/2009	0.11	0.89	0.50	0.00	0.00	0.05	0.05	0.00	0.04	0.05	103.75
Fine Grading Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Off Road Diesel	0.08	0.51	0.27	0.00	0.00	0.03	0.03	0.00	0.03	0.03	49.03
Fine Grading On Road Diesel	0.03	0.38	0.15	0.00	0.00	0.02	0.02	0.00	0.02	0.02	46.52
Fine Grading Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.21
Building 09/01/2009-10/31/2010	0.29	1.86	1.29	0.00	0.00	0.11	0.11	0.00	0.10	0.10	250.09
Building Off Road Diesel	0.27	1.78	0.87	0.00	0.00	0.11	0.11	0.00	0.10	0.10	200.24
Building Vendor Trips	0.01	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.20
Building Worker Trips	0.01	0.02	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.65
2010	1.87	4.35	3.09	0.00	0.01	0.26	0.26	0.00	0.24	0.24	618.99
Building 09/01/2009-10/31/2010	0.67	4.31	3.05	0.00	0.01	0.25	0.26	0.00	0.23	0.24	613.83
Building Off Road Diesel	0.63	4.13	2.09	0.00	0.00	0.25	0.25	0.00	0.23	0.23	491.49
Building Vendor Trips	0.01	0.13	0.11	0.00	0.00	0.01	0.01	0.00	0.01	0.01	25.05
Building Worker Trips	0.03	0.05	0.85	0.00	0.00	0.00	0.01	0.00	0.00	0.00	97.29
Coating 08/01/2010-10/31/2010	1.19	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.73
Architectural Coating	1.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.73
Asphalt 10/16/2010-10/31/2010	0.01	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.43
Paving Off-Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.01	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.77
Paving On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
Paving Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31

Construction Related Mitigation Measures

Appendix A–2

- SCAQMD Rule 403 (Fugitive Dust) Control Requirements

(Adopted May 7, 1976) (Amended November 6, 1992)
(Amended July 9, 1993) (Amended February 14, 1997)
(Amended December 11, 1998)(Amended April 2, 2004)

RULE 403. FUGITIVE DUST

(a) Purpose

The purpose of this Rule is to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions.

(b) Applicability

The provisions of this Rule shall apply to any activity or man-made condition capable of generating fugitive dust.

(c) Definitions

(1) ACTIVE OPERATIONS means any source capable of generating fugitive dust, including, but not limited to, earth-moving activities, construction/demolition activities, disturbed surface area, or heavy- and light-duty vehicular movement.

(2) AGGREGATE-RELATED PLANTS are defined as facilities that produce and / or mix sand and gravel and crushed stone.

(3) AGRICULTURAL HANDBOOK means the region-specific guidance document that has been approved by the Governing Board or hereafter approved by the Executive Officer and the U.S. EPA. For the South Coast Air Basin, the Board-approved region-specific guidance document is the Rule 403 Agricultural Handbook dated December 1998. For the Coachella Valley, the Board-approved region-specific guidance document is the Rule 403 Coachella Valley Agricultural Handbook dated April 2, 2004.

(4) ANEMOMETERS are devices used to measure wind speed and direction in accordance with the performance standards, and maintenance and calibration criteria as contained in the most recent Rule 403 Implementation Handbook.

(5) BEST AVAILABLE CONTROL MEASURES means fugitive dust control actions that are set forth in Table 1 of this Rule.

(6) BULK MATERIAL is sand, gravel, soil, aggregate material less than two inches in length or diameter, and other organic or inorganic particulate matter.

(7) CEMENT MANUFACTURING FACILITY is any facility that has a cement kiln at the facility.

(8) CHEMICAL STABILIZERS are any non-toxic chemical dust suppressant which must not be used if prohibited for use by the Regional Water Quality Control Boards, the California Air Resources Board, the U.S. Environmental Protection Agency (U.S. EPA), or any applicable law, rule or regulation. The chemical stabilizers shall meet any specifications, criteria, or tests required by any federal, state, or local water agency. Unless otherwise indicated, the use of a non-toxic chemical stabilizer shall be of sufficient concentration and application frequency to maintain a stabilized surface.

(9) CONSTRUCTION/DEMOLITION ACTIVITIES means any on-site mechanical activities conducted in preparation of, or related to, the building, alteration, rehabilitation, demolition or improvement of property, including, but not limited to the following activities: grading, excavation, loading, crushing, cutting, planing, shaping or ground breaking.

(10) CONTRACTOR means any person who has a contractual arrangement to conduct an active operation for another person.

(11) DISTURBED SURFACE AREA means a portion of the earth's surface which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural soil condition, thereby increasing the potential for emission of fugitive dust. This definition excludes those areas which have:

(A) been restored to a natural state, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby natural conditions;

(B) been paved or otherwise covered by a permanent structure; or

(C) sustained a vegetative ground cover of at least 70 percent of the native cover for a particular area for at least 30 days.

(12) DUST SUPPRESSANTS are water, hygroscopic materials, or non-toxic chemical stabilizers used as a treatment material to reduce fugitive dust emissions.

(13) EARTH-MOVING ACTIVITIES means the use of any equipment for any activity where soil is being moved or uncovered, and shall include, but not be limited to the following: grading, earth cutting and filling operations, loading or unloading of dirt or bulk materials, adding to or removing from open storage piles of bulk materials, landfill operations, weed abatement through disking, and soil mulching.

(14) DUST CONTROL SUPERVISOR means a person with the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule 403 requirements at an active operation.

(15) FUGITIVE DUST means any solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of the activities of any person.

(16) HIGH WIND CONDITIONS means that instantaneous wind speeds exceed 25 miles per hour.

(17) INACTIVE DISTURBED SURFACE AREA means any disturbed surface area upon which active operations have not occurred or are not expected to occur for a period of 20 consecutive days.

(18) LARGE OPERATIONS means any active operations on property which contains 50 or more acres of disturbed surface area; or any earth-moving operation with a daily earth-moving or throughput volume of 3,850 cubic meters (5,000 cubic yards) or more three times during the most recent 365-day period.

(19) OPEN STORAGE PILE is any accumulation of bulk material, which is not fully enclosed, covered or chemically stabilized, and which attains a height of three feet or more and a total surface area of 150 or more square feet.

(20) PARTICULATE MATTER means any material, except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions.

(21) PAVED ROAD means a public or private improved street, highway, alley, public way, or easement that is covered by typical roadway materials, but excluding access roadways that connect a facility with a public paved roadway and are not open to through traffic. Public paved roads are those open to public access and that are owned by any federal, state, county, municipal or any other governmental or quasi-governmental agencies. Private paved roads are any paved roads not defined as public.

(22) PM_{10} means particulate matter with an aerodynamic diameter smaller than or equal to 10 microns as measured by the applicable State and Federal reference test methods.

(23) PROPERTY LINE means the boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.

(24) RULE 403 IMPLEMENTATION HANDBOOK means a guidance document that has been approved by the Governing Board on April 2, 2004 or hereafter approved by the Executive Officer and the U.S. EPA.

(25) SERVICE ROADS are paved or unpaved roads that are used by one or more public agencies for inspection or maintenance of infrastructure and which are not typically used for construction-related activity.

(26) SIMULTANEOUS SAMPLING means the operation of two PM_{10} samplers in such a manner that one sampler is started within five minutes of the other, and each sampler is operated for a consecutive period which must be not less than 290 minutes and not more than 310 minutes.

(27) SOUTH COAST AIR BASIN means the non-desert portions of Los Angeles, Riverside, and San Bernardino counties and all of Orange County as defined in California Code of Regulations, Title 17, Section 60104. The area is bounded on the west by the Pacific Ocean, on the north and east by the San Gabriel, San Bernardino, and San Jacinto Mountains, and on the south by the San Diego county line.

(28) STABILIZED SURFACE means any previously disturbed surface area or open storage pile which, through the application of dust suppressants, shows visual or other evidence of surface crusting and is resistant to wind-driven fugitive dust and is demonstrated to be stabilized. Stabilization can be demonstrated by one or more of the applicable test methods contained in the Rule 403 Implementation Handbook.

(29) TRACK-OUT means any bulk material that adheres to and agglomerates on the exterior surface of motor vehicles, haul trucks, and equipment (including tires) that have been released onto a paved road and can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.

(30) TYPICAL ROADWAY MATERIALS means concrete, asphaltic concrete, recycled asphalt, asphalt, or any other material of equivalent performance as determined by the Executive Officer, and the U.S. EPA.

(31) UNPAVED ROADS means any unsealed or unpaved roads, equipment paths, or travel ways that are not covered by typical roadway materials. Public unpaved roads are any unpaved roadway owned by federal, state, county, municipal or other governmental or quasi-governmental agencies. Private unpaved roads are all other unpaved roadways not defined as public.

(32) VISIBLE ROADWAY DUST means any sand, soil, dirt, or other solid particulate matter which is visible upon paved road surfaces and which can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.

(33) WIND-DRIVEN FUGITIVE DUST means visible emissions from any disturbed surface area which is generated by wind action alone.

(34) WIND GUST is the maximum instantaneous wind speed as measured by an anemometer.

(d) Requirements

(1) No person shall cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that:

(A) the dust remains visible in the atmosphere beyond the property line of the emission source; or

(B) the dust emission exceeds 20 percent opacity (as determined by the appropriate test method included in the Rule 403 Implementation Handbook), if the dust emission is the result of movement of a motorized vehicle.

(2) No person shall conduct active operations without utilizing the applicable best available control measures included in Table 1 of this Rule to minimize fugitive dust emissions from each fugitive dust source type within the active operation.

(3) No person shall cause or allow PM_{10} levels to exceed 50 micrograms per cubic meter when determined, by simultaneous sampling, as the difference between upwind and downwind samples collected on high-volume particulate matter samplers or other U.S. EPA-approved equivalent

method for PM_{10} monitoring. If sampling is conducted, samplers shall be:

(A) Operated, maintained, and calibrated in accordance with 40 Code of Federal Regulations (CFR), Part 50, Appendix J, or appropriate U.S. EPA-published documents for U.S. EPA-approved equivalent method(s) for PM_{10}.

(B) Reasonably placed upwind and downwind of key activity areas and as close to the property line as feasible, such that other sources of fugitive dust between the sampler and the property line are minimized.

(4) No person shall allow track-out to extend 25 feet or more in cumulative length from the point of origin from an active operation. Notwithstanding the preceding, all track-out from an active operation shall be removed at the conclusion of each workday or evening shift.

(5) After January 1, 2005, no person shall conduct an active operation with a disturbed surface area of five or more acres, or with a daily import or export of 100 cubic yards or more of bulk material without utilizing at least one of the measures listed in subparagraphs (d)(5)(A) through (d)(5)(E) at each vehicle egress from the site to a paved public road.

(A) Install a pad consisting of washed gravel (minimum-size: one inch) maintained in a clean condition to a depth of at least six inches and extending at least 30 feet wide and at least 50 feet long.

(B) Pave the surface extending at least 100 feet and at least 20 feet wide.

(C) Utilize a wheel shaker/wheel spreading device consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.

(D) Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.

(E) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the actions specified in subparagraphs (d)(5)(A) through (d)(5)(D).

(e) Additional Requirements for Large Operations

(1) Any person who conducts or authorizes the conducting of a large operation subject to this Rule shall implement the applicable actions specified in Table 2 of this Rule at all times and shall implement the applicable actions specified in Table 3 of this Rule when the applicable performance standards can not be met through use of Table 2 actions; and shall:

(A) submit a fully executed Large Operation Notification (Form 403 N) to the Executive Officer within 7 days of qualifying as a large operation;

(B) include, as part of the notification, the name(s), address(es), and phone number(s) of the person(s) responsible for the submittal, and a description of the operation(s), including a map depicting the location of the site;

(C) maintain daily records to document the specific dust control actions taken, maintain such records for a period of not less than three years; and make such records available to the Executive Officer upon request;

(D) after January 1, 2005, install and maintain project signage with project contact signage that meets the minimum standards of the Rule 403 Implementation Handbook, prior to initiating any earthmoving activities;

(E) after January 1, 2005, identify a dust control supervisor that:

(i) is employed by or contracted with the property owner or developer;

(ii) is on the site or available on-site within 30 minutes during working hours;

(iii) has the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule requirements;

(iv) has completed the AQMD Fugitive Dust Control Class and has been issued a valid Certificate of Completion for the class; and

(F) notify the Executive Officer in writing within 30 days after the site no longer qualifies as a large operation as defined by paragraph (c)(18).

(2) Any Large Operation Notification submitted to the Executive Officer or AQMD-approved dust control plan shall be valid for a period of one year from the date of written acceptance by the Executive Officer. Any Large Operation Notification accepted pursuant to paragraph (e)(1), excluding those submitted by aggregate-related plants and cement manufacturing facilities must be resubmitted annually by the person who conducts or authorizes the conducting of a large operation, at least 30 days prior to the expiration date, or the submittal shall no longer be valid as of the expiration date. If all fugitive dust sources and corresponding control measures or special circumstances remain identical to those identified in the previously accepted submittal or in an AQMD-approved dust control plan, the resubmittal may be a simple statement of no-change (Form 403NC).

(f) Compliance Schedule

The newly amended provisions of this Rule shall become effective upon adoption. Pursuant to subdivision (e), any existing site that qualifies as a large operation will have 60 days from the date of Rule adoption to comply with the notification and recordkeeping requirements for large operations. Any Large Operation Notification or AQMD-approved dust control plan which has been accepted prior to the date of adoption of these amendments shall remain in effect and the Large Operation Notification or AQMD-approved dust control plan annual resubmittal date shall be one year from adoption of this Rule amendment.

(g) Exemptions

(1) The provisions of this Rule shall not apply to:

(A) Agricultural operations directly related to the raising of fowls or animals and agricultural operations, provided that the combined disturbed surface area within one continuous property line and not separated by a paved public road is 10 acres or less.

(B) Agricultural operations within the South Coast Air Basin, whose combined disturbed surface area includes more than 10 acres provided that the person responsible for such operations:

(i) voluntarily implements the conservation practices contained in the Rule 403 Agricultural Handbook;

(ii) completes and maintains the self-monitoring form documenting sufficient conservation practices, as described in the Rule 403 Agricultural Handbook; and

(iii) makes the completed self-monitoring form available to the Executive Officer upon request.

(C) Agricultural operations outside the South Coast Air Basin, until January 1, 2005, whose combined disturbed surface area includes more than 10 acres provided that the person responsible for such operations:

(i) voluntarily implements the conservation practices contained in the Rule 403 Coachella Valley Agricultural Handbook; and

(ii) completes and maintains the self-monitoring form documenting sufficient conservation practices, as described in the Rule 403 Coachella Valley Agricultural Handbook; and

(iii) makes the completed self-monitoring form available to the Executive Officer upon request.

(D) Active operations conducted during emergency life-threatening situations, or in conjunction with any officially declared disaster or state of emergency.

(E) Active operations conducted by essential service utilities to provide electricity, natural gas, telephone, water and sewer during periods of service outages and emergency disruptions.

(F) Any contractor subsequent to the time the contract ends, provided that such contractor implemented the required control measures during the contractual period.

(G) Any grading contractor, for a phase of active operations, subsequent to the contractual completion of that phase of earth-moving activities, provided that the required control measures have been implemented during the entire phase of earth-moving activities, through and including five days after the final grading inspection.

(H) Weed abatement operations ordered by a county agricultural commissioner or any state, county, or municipal fire department, provided that:

(i) mowing, cutting or other similar process is used which maintains weed stubble at least three inches above the soil; and

(ii) any discing or similar operation which cuts into and disturbs the soil, where watering is used prior to initiation of these activities and a determination is made by the agency issuing the weed abatement order that, due to fire hazard conditions, rocks, or other physical obstructions, it is not practical to meet the conditions specified in clause (g)(1)(H)(i). The provisions this clause shall not exempt the owner of any property from stabilizing, in accordance with paragraph (d)(2), disturbed surface areas which have been created as a result of the weed abatement actions.

(I) sandblasting operations.

(2) The provisions of paragraphs (d)(1) and (d)(3) shall not apply:

(A) When wind gusts exceed 25 miles per hour, provided that:

(i) The required Table 3 contingency measures in this Rule are implemented for each applicable fugitive dust source type, and;

(ii) records are maintained in accordance with subparagraph (e)(1)(C).

(B) To unpaved roads, provided such roads:

(i) are used solely for the maintenance of wind-generating equipment; or

(ii) are unpaved public alleys as defined in Rule 1186; or

(iii) are service roads that meet all of the following criteria:

(a) are less than 50 feet in width at all points along the road;

(b) are within 25 feet of the property line; and

(c) have a traffic volume less than 20 vehicle-trips per day.

(C) To any active operation, open storage pile, or disturbed surface area for which necessary fugitive dust preventive or mitigative actions are in conflict with the federal Endangered Species Act, as determined in writing by the State or federal agency responsible for making such determinations.

(3) The provisions of (d)(2) shall not apply to any aggregate-related plant or cement manufacturing facility that implements the applicable actions specified in Table 2 of this Rule at all times and shall implement the applicable actions specified in Table 3 of this Rule when the applicable performance standards of paragraphs (d)(1) and (d)(3) can not be met through use of Table 2 actions.

(4) The provisions of paragraphs (d)(1), (d)(2), and (d)(3) shall not apply to:

(A) Blasting operations which have been permitted by the California Division of Industrial Safety; and

(B) Motion picture, television, and video production activities when dust emissions are required for visual effects. In order to obtain this exemption, the Executive Officer must receive notification in writing at least 72 hours in advance of any such activity and no nuisance results from such activity.

(5) The provisions of paragraph (d)(3) shall not apply if the dust control actions, as specified in Table 2, are implemented on a routine basis for each applicable fugitive dust source type. To qualify for this exemption, a person must maintain records in accordance with subparagraph (e)(1)(C).

(6) The provisions of paragraph (d)(4) shall not apply to earth coverings of public paved roadways where such coverings are approved by a local government agency for the protection of the roadway, and where such coverings are used as roadway crossings for haul vehicles provided that such roadway is closed to through traffic and visible roadway dust is removed within one day following the cessation of activities.

(7) The provisions of subdivision (e) shall not apply to:

(A) officially-designated public parks and recreational areas, including national parks, national monuments, national forests, state parks, state recreational areas, and county regional parks.

(B) any large operation which is required to submit a dust control plan to any city or county government which has adopted a District-approved dust control ordinance.

(C) any large operation subject to Rule 1158, which has an approved dust control plan pursuant to Rule 1158, provided that all sources of fugitive dust are included in the Rule 1158 plan.

(8) The provisions of subparagraph (e)(1)(A) through (e)(1)(C) shall not apply to any large operation with an AQMD-approved fugitive dust control plan

provided that there is no change to the sources and controls as identified in the AQMD-approved fugitive dust control plan.

(h) Fees

Any person conducting active operations for which the Executive Officer conducts upwind/downwind monitoring for PM_{10} pursuant to paragraph (d)(3) shall be assessed applicable Ambient Air Analysis Fees pursuant to Rule 304.1. Applicable fees shall be waived for any facility which is exempted from paragraph (d)(3) or meets the requirements of paragraph (d)(3).

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Backfilling	01-1 Stabilize backfill material when not actively handling; and 01-2 Stabilize backfill material during handling; and 01-3 Stabilize soil at completion of activity.	✓ Mix backfill soil with water prior to moving ✓ Dedicate water truck or high capacity hose to backfilling equipment ✓ Empty loader bucket slowly so that no dust plumes are generated ✓ Minimize drop height from loader bucket
Clearing and grubbing	02-1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing; and 02-2 Stabilize soil during clearing and grubbing activities; and 02-3 Stabilize soil immediately after clearing and grubbing activities.	✓ Maintain live perennial vegetation where possible ✓ Apply water in sufficient quantity to prevent generation of dust plumes
Clearing forms	03-1 Use water spray to clear forms; or 03-2 Use sweeping and water spray to clear forms; or 03-3 Use vacuum system to clear forms.	✓ Use of high pressure air to clear forms may cause exceedance of Rule requirements
Crushing	04-1 Stabilize surface soils prior to operation of support equipment; and 04-2 Stabilize material after crushing.	✓ Follow permit conditions for crushing equipment ✓ Pre-water material prior to loading into crusher ✓ Monitor crusher emissions opacity ✓ Apply water to crushed material to prevent dust plumes

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Cut and fill	05-1 Pre-water soils prior to cut and fill activities; and 05-2 Stabilize soil during and after cut and fill activities.	✓ For large sites, pre-water with sprinklers or water trucks and allow time for penetration ✓ Use water trucks/pulls to water soils to depth of cut prior to subsequent cuts
Demolition – mechanical/manual	06-1 Stabilize wind erodible surfaces to reduce dust; and 06-2 Stabilize surface soil where support equipment and vehicles will operate; and 06-3 Stabilize loose soil and demolition debris; and 06-4 Comply with AQMD Rule 1403.	✓ Apply water in sufficient quantities to prevent the generation of visible dust plumes
Disturbed soil	07-1 Stabilize disturbed soil throughout the construction site; and 07-2 Stabilize disturbed soil between structures	✓ Limit vehicular traffic and disturbances on soils where possible ✓ If interior block walls are planned, install as early as possible ✓ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes
Earth-moving activities	08-1 Pre-apply water to depth of proposed cuts; and 08-2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction; and 08-3 Stabilize soils once earth-moving activities are complete.	✓ Grade each project phase separately, timed to coincide with construction phase ✓ Upwind fencing can prevent material movement on site ✓ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Importing/exporting of bulk materials	09-1 Stabilize material while loading to reduce fugitive dust emissions; and 09-2 Maintain at least six inches of freeboard on haul vehicles; and 09-3 Stabilize material while transporting to reduce fugitive dust emissions; and 09-4 Stabilize material while unloading to reduce fugitive dust emissions; and 09-5 Comply with Vehicle Code Section 23114.	✓ Use tarps or other suitable enclosures on haul trucks ✓ Check belly-dump truck seals regularly and remove any trapped rocks to prevent spillage ✓ Comply with track-out prevention/mitigation requirements ✓ Provide water while loading and unloading to reduce visible dust plumes
Landscaping	10-1 Stabilize soils, materials, slopes	✓ Apply water to materials to stabilize ✓ Maintain materials in a crusted condition ✓ Maintain effective cover over materials ✓ Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes ✓ Hydroseed prior to rain season
Road shoulder maintenance	11-1 Apply water to unpaved shoulders prior to clearing; and 11-2 Apply chemical dust suppressants and/or washed gravel to maintain a stabilized surface after completing road shoulder maintenance.	✓ Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs ✓ Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Screening	12-1 Pre-water material prior to screening; and 12-2 Limit fugitive dust emissions to opacity and plume length standards; and 12-3 Stabilize material immediately after screening.	✓ Dedicate water truck or high capacity hose to screening operation ✓ Drop material through the screen slowly and minimize drop height ✓ Install wind barrier with a porosity of no more than 50% upwind of screen to the height of the drop point
Staging areas	13-1 Stabilize staging areas during use; and 13-2 Stabilize staging area soils at project completion.	✓ Limit size of staging area ✓ Limit vehicle speeds to 15 miles per hour ✓ Limit number and size of staging area entrances/exists
Stockpiles/ Bulk Material Handling	14-1 Stabilize stockpiled materials. 14-2 Stockpiles within 100 yards of off-site occupied buildings must not be greater than eight feet in height; or must have a road bladed to the top to allow water truck access or must have an operational water irrigation system that is capable of complete stockpile coverage.	✓ Add or remove material from the downwind portion of the storage pile ✓ Maintain storage piles to avoid steep sides or faces

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Traffic areas for construction activities	15-1 Stabilize all off-road traffic and parking areas; and 15-2 Stabilize all haul routes; and 15-3 Direct construction traffic over established haul routes.	✓ Apply gravel/paving to all haul routes as soon as possible to all future roadway areas ✓ Barriers can be used to ensure vehicles are only used on established parking areas/haul routes
Trenching	16-1 Stabilize surface soils where trencher or excavator and support equipment will operate; and 16-2 Stabilize soils at the completion of trenching activities.	✓ Pre-watering of soils prior to trenching is an effective preventive measure. For deep trenching activities, pre-trench to 18 inches soak soils via the pre-trench and resuming trenching ✓ Washing mud and soils from equipment at the conclusion of trenching activities can prevent crusting and drying of soil on equipment
Truck loading	17-1 Pre-water material prior to loading; and 17-2 Ensure that freeboard exceeds six inches (CVC 23114)	✓ Empty loader bucket such that no visible dust plumes are created ✓ Ensure that the loader bucket is close to the truck to minimize drop height while loading
Turf Overseeding	18-1 Apply sufficient water immediately prior to conducting turf vacuuming activities to meet opacity and plume length standards; and 18-2 Cover haul vehicles prior to exiting the site.	✓ Haul waste material immediately off-site

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Unpaved roads/parking lots	19-1 Stabilize soils to meet the applicable performance standards; and 19-2 Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots.	✓ Restricting vehicular access to established unpaved travel paths and parking lots can reduce stabilization requirements
Vacant land	20-1 In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, prevent motor vehicle and/or off-road vehicle trespassing, parking and/or access by installing barriers, curbs, fences, gates, posts, signs, shrubs, trees or other effective control measures.	

TABLE 2

DUST CONTROL MEASURES FOR LARGE OPERATIONS

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS	
Earth-moving (except construction cutting and filling areas, and mining operations)	(1a)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; OR
	(1a-1)	For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.
Earth-moving: Construction fill areas:	(1b)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer and the California Air Resources Board and the U.S. EPA, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.

TABLE 2 (Continued)

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS	
Earth-moving: Construction cut areas and mining operations:	(1c)	Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.
Disturbed surface areas (except completed grading areas)	(2a/b)	Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area.
Disturbed surface areas: Completed grading areas	(2c)	Apply chemical stabilizers within five working days of grading completion; OR
	(2d)	Take actions (3a) or (3c) specified for inactive disturbed surface areas.
Inactive disturbed surface areas	(3a)	Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR
	(3b)	Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR
	(3c)	Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR
	(3d)	Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas.

TABLE 2 (Continued)

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS	
Unpaved Roads	(4a)	Water all roads used for any vehicular traffic at least once per every two hours of active operations [3 times per normal 8 hour work day]; OR
	(4b)	Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR
	(4c)	Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.
Open storage piles	(5a)	Apply chemical stabilizers; OR
	(5b)	Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR
	(5c)	Install temporary coverings; OR
	(5d)	Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile. This option may only be used at aggregate-related plants or at cement manufacturing facilities.
All Categories	(6a)	Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 2 may be used.

TABLE 3

CONTINGENCY CONTROL MEASURES FOR LARGE OPERATIONS

FUGITIVE DUST SOURCE CATEGORY	CONTROL MEASURES
Earth-moving	(1A) Cease all active operations; OR (2A) Apply water to soil not more than 15 minutes prior to moving such soil.
Disturbed surface areas	(0B) On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR (1B) Apply chemical stabilizers prior to wind event; OR (2B) Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; OR (3B) Take the actions specified in Table 2, Item (3c); OR (4B) Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.
Unpaved roads	(1C) Apply chemical stabilizers prior to wind event; OR (2C) Apply water twice per hour during active operation; OR (3C) Stop all vehicular traffic.
Open storage piles	(1D) Apply water twice per hour; OR (2D) Install temporary coverings.
Paved road track-out	(1E) Cover all haul vehicles; OR (2E) Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.
All Categories	(1F) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 3 may be used.

Appendix A–3

- Operation Emissions
  - Regional Operation Emissions
    - URBEMIS2007 Output Files
    - Regional Emission Summary Sheets
    - Stationary Emission Summary Sheets
  - Local Operation Emissions
    - LOS Analysis Sheet
    - One-hour CO Summary Sheets
    - Eight-hour CO Summary Sheets
    - CALINE4 Output Files
    - EMFAC2007 Emission Rates

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: V:\AQNOISE DIVISION\Active Projects\Cal Fair Oaks Pasadena\Urbemis\Operations\Existing\Cal Fair Oaks Existing.urb924

Project Name: Pasadena Cal Fair Oaks- Existing

Project Location: Los Angeles County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	0.33	0.16	3.19	0.00	0.01	0.01	152.24

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	6.08	9.14	79.78	0.08	13.66	2.66	8,110.77

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	6.41	9.30	82.97	0.08	13.67	2.67	8,263.01

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.01	0.12	0.10	0.00	0.00	0.00	146.62
Hearth							
Landscape	0.25	0.04	3.09	0.00	0.01	0.01	5.62
Consumer Products	0.00						
Architectural Coatings	0.07						
TOTALS (lbs/day, unmitigated)	0.33	0.16	3.19	0.00	0.01	0.01	152.24

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Quality resturant	3.73	5.61	49.07	0.05	8.39	1.63	4,983.20
Strip mall	2.35	3.53	30.71	0.03	5.27	1.03	3,127.57
TOTALS (lbs/day, unmitigated)	6.08	9.14	79.78	0.08	13.66	2.66	8,110.77

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2010 Temperature (F): 80 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

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Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Quality resturant		80.92	1000 sq ft	6.53	528.41	4,857.12
Strip mall		55.65	1000 sq ft	6.11	340.02	3,051.01
					868.43	7,908.13

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	53.6	1.1	98.7	0.2
Light Truck < 3750 lbs	6.8	2.9	94.2	2.9
Light Truck 3751-5750 lbs	22.8	0.4	99.6	0.0
Med Truck 5751-8500 lbs	10.0	1.0	99.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.5	0.0	86.7	13.3
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.3	69.6	30.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.8	0.0	87.5	12.5

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Quality resturant				8.0	4.0	88.0
Strip mall				2.0	1.0	97.0

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: V:\AQNOISE DIVISION\Active Projects\Cal Fair Oaks Pasadena\Urbemis\Operations\Existing\Cal Fair Oaks Existing.urb924

Project Name: Pasadena Cal Fair Oaks- Existing

Project Location: Los Angeles County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	0.08	0.12	0.10	0.00	0.00	0.00	146.62

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	6.92	11.02	76.67	0.07	13.66	2.66	7,343.80

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	7.00	11.14	76.77	0.07	13.66	2.66	7,490.42

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.01	0.12	0.10	0.00	0.00	0.00	146.62
Hearth							
Landscaping - No Winter Emissions							
Consumer Products	0.00						
Architectural Coatings	0.07						
TOTALS (lbs/day, unmitigated)	0.08	0.12	0.10	0.00	0.00	0.00	146.62

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Quality resturant	4.25	6.77	47.12	0.04	8.39	1.63	4,512.13
Strip mall	2.67	4.25	29.55	0.03	5.27	1.03	2,831.67
TOTALS (lbs/day, unmitigated)	6.92	11.02	76.67	0.07	13.66	2.66	7,343.80

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2010 Temperature (F): 60 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

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Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Quality resturant		80.92	1000 sq ft	6.53	528.41	4,857.12
Strip mall		55.65	1000 sq ft	6.11	340.02	3,051.01
					868.43	7,908.13

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	53.6	1.1	98.7	0.2
Light Truck < 3750 lbs	6.8	2.9	94.2	2.9
Light Truck 3751-5750 lbs	22.8	0.4	99.6	0.0
Med Truck 5751-8500 lbs	10.0	1.0	99.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.5	0.0	86.7	13.3
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.3	69.6	30.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.8	0.0	87.5	12.5

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Quality resturant				8.0	4.0	88.0
Strip mall				2.0	1.0	97.0

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: V:\AQNOISE DIVISION\Active Projects\Cal Fair Oaks Pasadena\Urbemis\Cal Fair Oaks Urbemis.urb924

Project Name: Pasadena Cal Fair Oaks

Project Location: Los Angeles County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2008 TOTALS (lbs/day unmitigated)	4.51	28.08	22.02	0.01	26.01	1.62	27.42	5.43	1.49	6.73	2,754.65
2009 TOTALS (lbs/day unmitigated)	121.30	19.21	21.03	0.01	0.05	1.36	1.41	0.02	1.25	1.27	2,754.23

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	0.83	0.77	2.18	0.00	0.01	0.01	908.41

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	9.51	13.11	116.93	0.12	19.71	3.84	11,740.93

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	10.34	13.88	119.11	0.12	19.72	3.85	12,649.34

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.05	0.75	0.63	0.00	0.00	0.00	905.60
Hearth							
Landscape	0.12	0.02	1.55	0.00	0.01	0.01	2.81
Consumer Products	0.00						
Architectural Coatings	0.66						
TOTALS (lbs/day, unmitigated)	0.83	0.77	2.18	0.00	0.01	0.01	908.41

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
General office building	9.51	13.11	116.93	0.12	19.71	3.84	11,740.93
TOTALS (lbs/day, unmitigated)	9.51	13.11	116.93	0.12	19.71	3.84	11,740.93

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Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2010 Temperature (F): 80 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
General office building		9.90	1000 sq ft	113.20	1,120.68	11,405.72
					1,120.68	11,405.72

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	53.6	1.1	98.7	0.2
Light Truck < 3750 lbs	6.8	2.9	94.2	2.9
Light Truck 3751-5750 lbs	22.8	0.4	99.6	0.0
Med Truck 5751-8500 lbs	10.0	1.0	99.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.5	0.0	86.7	13.3
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.3	69.6	30.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.8	0.0	87.5	12.5

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
General office building				35.0	17.5	47.5

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: V:\AQNOISE DIVISION\Active Projects\Cal Fair Oaks Pasadena\Urbemis\Cal Fair Oaks Urbemis.urb924

Project Name: Pasadena Cal Fair Oaks

Project Location: Los Angeles County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2008 TOTALS (lbs/day unmitigated)	4.51	28.08	22.02	0.01	26.01	1.62	27.42	5.43	1.49	6.73	2,754.65
2009 TOTALS (lbs/day unmitigated)	121.30	19.21	21.03	0.01	0.05	1.36	1.41	0.02	1.25	1.27	2,754.23

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	0.71	0.75	0.63	0.00	0.00	0.00	905.60

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	10.32	15.81	111.42	0.10	19.71	3.84	10,634.76

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	11.03	16.56	112.05	0.10	19.71	3.84	11,540.36

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.05	0.75	0.63	0.00	0.00	0.00	905.60
Hearth							
Landscaping - No Winter Emissions							
Consumer Products	0.00						
Architectural Coatings	0.66						
TOTALS (lbs/day, unmitigated)	0.71	0.75	0.63	0.00	0.00	0.00	905.60

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
General office building	10.32	15.81	111.42	0.10	19.71	3.84	10,634.76
TOTALS (lbs/day, unmitigated)	10.32	15.81	111.42	0.10	19.71	3.84	10,634.76

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Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2010 Temperature (F): 60 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
General office building		9.90	1000 sq ft	113.20	1,120.68	11,405.72
					1,120.68	11,405.72

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	53.6	1.1	98.7	0.2
Light Truck < 3750 lbs	6.8	2.9	94.2	2.9
Light Truck 3751-5750 lbs	22.8	0.4	99.6	0.0
Med Truck 5751-8500 lbs	10.0	1.0	99.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.5	0.0	86.7	13.3
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.3	69.6	30.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.8	0.0	87.5	12.5

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
General office building				35.0	17.5	47.5

Pasadena Cal Fair Oaks DEIR
Regional Operations Emissions Calculations

Pasadena Cal Fair Oaks

Regional Emission Calculations (lbs/day)

		VOC	NOx	CO	SO2	PM10	PM2.5
Existing							
	Mobile	7	11	80	0	14	3
	Area	0	0	3	0	0	0
	Stationary	0	1	0	0	0	0
	Total Existing	**7**	**12**	**83**	**0**	**14**	**3**
Project							
	Mobile	10	16	117	0	20	4
	Area	1	1	2	0	0	0
	Stationary	0	5	1	0	0	0
	Total Project	**11**	**21**	**120**	**0**	**20**	**4**
Net Project							
	Net Mobile	3	5	37	<1	6	1
	Net Area	<1	<1	-<1	<1	<1	<1
	Net Stationary	<1	3	<1	<1	<1	<1
	Total Net	4	9	37	<1	6	1
	SCAQMD Significance Th	55	55	550	150	150	55
	Difference	**(51)**	**(46)**	**(513)**	**(150)**	**(144)**	**(54)**
	Significant?	**No**	**No**	**No**	**No**	**No**	**No**

Pasadena Cal Fair Oaks

Electricity Usage

Electricity Usage

Land Use	1,000 Sqft	Electricity Usage Rate [a] (kWh\sq.ft\yr)	Total Electricity Usage (KWh\year)	Total Electricity Usage (MWh\Day)	CO	ROC	NOx	PM10	SOx	CO2	CH4	NO2
					0.2	0.01	1.15	0.04	0.12	804.54	0.0067	0.0037
					Emission Factors (lbs/MWh) [b]							
Existing					Emissions from Electricity Consumption (lbs/day)							
Strip Mall (Retail)	6.1	12.95	79,125	0.217	0.043	0.002	0.249	0.009	0.026	174.408	0.001	0.001
Restaurant	6.5	47.45	309,611	0.848	0.170	0.008	0.975	0.034	0.102	682.451	0.006	0.003
Total Existing			**388,736**	**1.065**	**0.21**	**0.01**	**1.22**	**0.04**	**0.13**	**856.86**	**0.01**	**0.00**
Project												
Office	113.2	12.95	1,465,940	4.016	0.803	0.040	4.619	0.161	0.482	3231.253	0.027	0.015
Total Project			**1,465,940**	**4.016**	**0.80**	**0.04**	**4.62**	**0.16**	**0.48**	**3,231.25**	**0.03**	**0.02**
Net Emissions From Electricity Usage					**0.59**	**0.03**	**3.40**	**0.12**	**0.35**	**2374.39**	**0.02**	**0.01**

Summary of Stationary Emissions

	CO	ROC	NOx	PM10	SOx
Total Existing Emissions (lbs/day)	0.21	0.01	1.22	0.04	0.13
Total Project Emissions (lbs/day)	0.80	0.04	4.62	0.16	0.48
Total Net Emissions (lbs/day)	**0.59**	**0.03**	**3.40**	**0.12**	**0.35**

[a] Electricity Usage Rates from Table A9-11-A, CEQA Air Quality Handbook, SCAQMD, 1993.
[b] Emission Factors from Table A9-11-B, CEQA Air Quality Handbook, SCAQMD, 1993.

Intersection Level of Service Summary
Future (2010) Traffic Volumes

No.	Intersection	Peak Hour	NP (2010) V/C	NP (2010) Delay	NP (2010) LOS	WP (2010) V/C	WP (2010) Delay	WP (2010) LOS	LOS Increase	LOS >=D?	Criteria 1 Analyze?	Criteria 2 Analyze?	Analyze?	Change in V/C
1	St John Ave and California Blvd	AM	0.721		C	0.728		C	1.0%	No	No	No	No	0.007
		PM	0.655		B	0.655		B	0.0%	No	No	No	No	0.000
2	Pasadena Ave and California Blvd	AM	0.805		D	0.805		D	0.0%	Yes	No	No	No	0.000
		PM	0.956		E	0.961		E	0.5%	Yes	No	No	No	0.005
3	Fair Oaks Ave and California Blvd	AM	0.710		C	0.715		C	0.7%	No	No	No	No	0.005
		PM	0.791		C	0.795		C	0.5%	No	No	No	No	0.004
4	Raymond Ave and California Blvd	AM	0.360		A	0.361		A	0.3%	No	No	No	No	0.001
		PM	0.498		A	0.504		A	1.2%	No	No	No	No	0.006
5	Arroyo Pkwy and California Blvd	AM	0.654		B	0.657		B	0.5%	No	No	No	No	0.003
		PM	0.814		D	0.816		D	0.2%	Yes	No	No	No	0.002
6	Fair Oaks Ave and Glenarm St	AM	0.851		D	0.865		D	1.6%	Yes	No	No	No	0.014
		PM	0.864		D	0.865		D	0.1%	Yes	No	No	No	0.001
7	Fair Oaks Ave and Congress St	AM	0.436		A	0.436		A	0.0%	No	No	No	No	0.000
		PM	0.498		A	0.498		A	0.0%	No	No	No	No	0.000
8	Fair Oaks Ave and Del Mar Blvd	AM	0.672		B	0.673		B	0.1%	No	No	No	No	0.001
		PM	0.836		D	0.837		D	0.1%	Yes	No	No	No	0.001
9	Raymond Ave and Pico St	AM	0.198		A	0.221		A	11.6%	No	No	No	No	0.023
		PM	0.253		A	0.261		A	3.2%	No	No	No	No	0.008

*The SCAQMD recommends performing a CO hotspots analysis if the volume to capacity ratio increases by two percent or more as a result of a proposed project for intersections rated D or worse or if the LOS declines from C to D.

Criteria 1 = LOS D + V/C increase >= 2%
Criteria 2 = LOS C to D

Cal Fair Oaks Office Building

CALINE4 Modeling Results and Estimated Local 1-Hour Carbon Monoxide Concentrations (ppm)

Projected Background 1-Hour CO Concentrations (ppm)[a]

Monitoring Station: Pasadena

Year	1-Hr Concentration
2010	6.5

Intersection and Receptor Locations	Future Without Project		Future With Project		
	Traffic CO Contribution[b]	Estimated Local CO Concentration[c]	Traffic CO Contribution[b]	Estimated Local CO Concentration[c]	Exceedance of Significance Threshold[d]
FAIROAKSAVENUEANDCALIFORNIABOULEVARDAM					
NE	1.5	8.0	1.5	8.0	NO
SE	1.3	7.8	1.3	7.8	NO
SW	1.3	7.8	1.4	7.9	NO
NW	1.5	8.0	1.6	8.1	NO
FAIROAKSAVENUEANDCALIFORNIABOULEVARDPM					
NE	1.5	8.0	1.5	8.0	NO
SE	1.6	8.1	1.6	8.1	NO
SW	1.5	8.0	1.5	8.0	NO
NW	1.7	8.2	1.7	8.2	NO
PASADENAAVENUEANDCALIFORNIABOULEVARDAM					
NE	1.5	8.0	1.4	7.9	NO
SE	2.0	8.5	1.8	8.3	NO
SW	2.0	8.5	1.8	8.3	NO
NW	1.5	8.0	1.5	8.0	NO
PASADENAAVENUEANDCALIFORNIABOULEVARDPM					
NE	1.9	8.4	1.7	8.2	NO
SE	2.3	8.8	2.1	8.6	NO
SW	2.3	8.8	2.1	8.6	NO
NW	1.9	8.4	1.9	8.4	NO

a Based on guidance provided by the AQMD Air Quality Analysis Guidance Handbook

b The 1-hour traffic contribution (ppm) is determined by inputing total traffic volumes into the CALINE4 model.

c The estimated local concentration is the traffic contribution + the background concentration.

d The California Ambient Air Quality Standard for 1-hour CO concentrations is 20 ppm.

Cal Fair Oaks Office Building

CALINE4 Modeling Results and Estimated Local 8-Hour Carbon Monoxide Concentrations (ppm)

Projected Background 8-Hour CO Concentrations (ppm) [a]

Monitoring Station: Pasadena

Year	8-Hr Concentration
2010	4.8

Average Persistence Factor = 0.70

Intersection and Receptor Locations	Future Without Project		Future With Project		
	Traffic CO Contribution [b]	Estimated Local CO Concentration [c]	Traffic CO Contribution [b]	Estimated Local CO Concentration [c]	Exceedance of Significance Threshold [d]
FAIROAKSAVENUEANDCALIFORNIABOULEVARDAM					
NE	0.8	5.6	0.8	5.6	NO
SE	0.8	5.6	0.8	5.6	NO
SW	0.8	5.6	0.8	5.6	NO
NW	0.8	5.6	0.8	5.6	NO
FAIROAKSAVENUEANDCALIFORNIABOULEVARDPM					
NE	0.9	5.7	1.0	5.8	NO
SE	0.9	5.7	0.9	5.7	NO
SW	0.9	5.7	0.9	5.7	NO
NW	0.8	5.6	0.8	5.6	NO
PASADENAAVENUEANDCALIFORNIABOULEVARDAM					
NE	0.8	5.6	0.8	5.6	NO
SE	0.9	5.7	0.9	5.7	NO
SW	1.0	5.8	1.0	5.8	NO
NW	0.8	5.6	0.8	5.6	NO
PASADENAAVENUEANDCALIFORNIABOULEVARDPM					
NE	1.0	5.8	0.8	5.6	NO
SE	1.1	5.9	1.1	5.9	NO
SW	1.1	5.9	1.1	5.9	NO
NW	1.0	5.8	1.1	5.9	NO

a Based on guidance provided by the AQMD Air Quality Analysis Guidance Handbook.

b The persistence factor is calculated as recommended in Table B.15 in the Transportation Project-Level Carbon Monoxide Protocol (Institute of Transportation Studies, UC Davis, Revised 1997). This is a generalized persistence factor likely to provide a conservative estimate in most situations.

c The estimated local concentration is the traffic contribution + the background concentration.

d The California Ambient Air Quality Standard for 8-hour CO concentrations is 9 ppm.

JOB: PASADENA AVENUE AND CALIFORNIA BOULEVARD PM WP
RUN: (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0= 100. CM	ALT= 0. (FT)
BRG=	WORST CASE	VD= .0 CM/S	
CLAS=	7 (G)	VS= .0 CM/S	
MIXH=	1000. M	AMB= .0 PPM	
SIGTH=	5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. NF	1800	0	1900	0	AG	1909	3.0	.0	65.0
B. NA	1800	0	1900	0	AG	1864	5.7	.0	60.0
C. ND	8	0	8	500	AG	2724	5.7	.0	45.0
D. NE	8	500	8	1500	AG	2724	3.0	.0	65.0
E. SF	-30	1500	-30	500	AG	0	3.0	.0	35.0
F. SA	-30	500	-30	0	AG	0	5.1	.0	33.0
G. SD	1800	0	1900	0	AG	0	3.4	.0	33.0
H. SE	1800	0	1900	0	AG	0	3.0	.0	35.0
I. WF	1500	23	500	23	AG	1065	3.0	.0	50.0
J. WA	500	23	0	23	AG	1065	5.1	.0	45.0
K. WD	0	23	-500	23	AG	458	3.3	.0	33.0
L. WE	-500	23	-1500	23	AG	458	3.0	.0	50.0
M. EF	-1500	-23	-500	-23	AG	1097	3.0	.0	50.0
N. EA	-500	-23	0	-23	AG	822	5.1	.0	45.0
O. ED	0	-23	500	-23	AG	889	3.4	.0	33.0
P. EE	500	-23	1500	-23	AG	889	3.0	.0	50.0
Q. NL	0	0	-8	-500	AG	45	5.1	.0	33.0
R. SL	0	-1900	-38	500	AG	0	5.1	.0	33.0
S. WL	0	0	500	15	AG	0	4.9	.0	33.0
T. EL	0	0	-500	-15	AG	275	5.1	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NE3	40	48	6.0
2. SE3	40	-48	6.0
3. SW3	-40	-48	6.0
4. NW3	-40	48	6.0
5. NE7	53	61	6.0
6. SE7	53	-61	6.0
7. SW7	-53	-61	6.0
8. NW7	-53	61	6.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	259.	1.7	.0	.0	.9	.0	.0	.0	.0	.0
2. SE3	354.	2.1	.0	.0	1.5	.2	.0	.0	.0	.0
3. SW3	9.	1.5	.0	.0	1.1	.0	.0	.0	.0	.0
4. NW3	95.	1.8	.0	.0	.7	.0	.0	.0	.0	.0
5. NE7	234.	1.3	.0	.0	.8	.0	.0	.0	.0	.0
6. SE7	352.	1.5	.0	.0	1.1	.0	.0	.0	.0	.0
7. SW7	10.	1.3	.0	.0	.9	.0	.0	.0	.0	.0
8. NW7	96.	1.4	.0	.0	.6	.0	.0	.0	.0	.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.2	.2	.0	.0	.3	.0	.0	.0	.0	.0	.1
2. SE3	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
3. SW3	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0
4. NW3	.0	.8	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
5. NE7	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0
6. SE7	.0	.2	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
7. SW7	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0
8. NW7	.0	.5	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0

JOB: PASADENA AVENUE AND CALIFORNIA BOULEVARD PM NP
RUN: (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	0. (FT)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	5. DEGREES	TEMP=	15.6 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. NF	1800	0	1900	0	AG	1909	3.0	.0	65.0
B. NA	1800	0	1900	0	AG	1864	5.7	.0	60.0
C. ND	8	0	8	500	AG	2716	5.7	.0	45.0
D. NE	8	500	8	1500	AG	2716	3.0	.0	65.0
E. SF	8	-1000	8	0	AG	0	3.0	.0	35.0
F. SA	8	-500	8	0	AG	0	5.1	.0	33.0
G. SD	8	0	1900	500	AG	0	3.4	.0	33.0
H. SE	8	0	1900	1500	AG	0	3.0	.0	35.0
I. WF	1500	23	500	23	AG	1057	3.0	.0	50.0
J. WA	500	23	0	23	AG	1057	5.1	.0	45.0
K. WD	0	23	-500	23	AG	458	3.3	.0	33.0
L. WE	-500	23	-1500	23	AG	458	3.0	.0	50.0
M. EF	-1500	-23	-500	-23	AG	1097	3.0	.0	50.0
N. EA	-500	-23	0	-23	AG	822	5.1	.0	45.0
O. ED	0	-23	500	-23	AG	889	3.4	.0	33.0
P. EE	500	-23	1500	-23	AG	889	3.0	.0	50.0
Q. NL	1900	0	1800	0	AG	45	5.1	.0	33.0
R. SL	0	-1900	0	-1800	AG	0	5.1	.0	33.0
S. WL	0	-1900	0	-1800	AG	0	4.9	.0	33.0
T. EL	0	0	-500	-15	AG	275	5.1	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NE3	40	48	6.0
2. SE3	40	-48	6.0
3. SW3	-40	-48	6.0
4. NW3	-40	48	6.0
5. NE7	53	61	6.0
6. SE7	53	-61	6.0
7. SW7	-53	-61	6.0
8. NW7	-53	61	6.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	259.	1.7	.0	.0	.8	.0	.0	.0	.0	.0
2. SE3	354.	2.1	.0	.0	1.5	.2	.0	.0	.0	.0
3. SW3	9.	1.5	.0	.0	1.1	.0	.0	.0	.0	.0
4. NW3	95.	1.8	.0	.0	.7	.0	.0	.0	.0	.0
5. NE7	234.	1.3	.0	.0	.8	.0	.0	.0	.0	.0
6. SE7	352.	1.5	.0	.0	1.1	.0	.0	.0	.0	.0
7. SW7	10.	1.3	.0	.0	.9	.0	.0	.0	.0	.0
8. NW7	96.	1.4	.0	.0	.6	.0	.0	.0	.0	.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.2	.2	.0	.0	.3	.0	.0	.0	.0	.0	.1
2. SE3	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
3. SW3	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0
4. NW3	.0	.8	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
5. NE7	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0
6. SE7	.0	.2	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
7. SW7	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0
8. NW7	.0	.5	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0

JOB: PASADENA AVENUE AND CALIFORNIA BOULEVARD AM WP
RUN: (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	0. (FT)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	5. DEGREES	TEMP=	15.6 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. NF	1800	0	1900	0	AG	1580	3.0	.0	65.0
B. NA	1800	0	1900	0	AG	1554	5.5	.0	60.0
C. ND	8	0	8	500	AG	2266	5.5	.0	45.0
D. NE	8	500	8	1500	AG	2266	3.0	.0	65.0
E. SF	-30	1500	-30	500	AG	0	3.0	.0	35.0
F. SA	-30	500	-30	0	AG	0	5.3	.0	33.0
G. SD	1800	0	1900	0	AG	0	3.4	.0	33.0
H. SE	1800	0	1900	0	AG	0	3.0	.0	35.0
I. WF	1500	23	500	23	AG	745	3.0	.0	50.0
J. WA	500	23	0	23	AG	745	4.7	.0	45.0
K. WD	0	23	-500	23	AG	237	3.3	.0	33.0
L. WE	-500	23	-1500	23	AG	237	3.0	.0	50.0
M. EF	-1500	-23	-500	-23	AG	1294	3.0	.0	50.0
N. EA	-500	-23	0	-23	AG	1062	5.1	.0	45.0
O. ED	0	-23	500	-23	AG	1116	3.5	.0	33.0
P. EE	500	-23	1500	-23	AG	1116	3.0	.0	50.0
Q. NL	0	0	-8	-500	AG	26	5.3	.0	33.0
R. SL	0	-1900	-38	500	AG	0	5.3	.0	33.0
S. WL	0	0	500	15	AG	0	4.7	.0	33.0
T. EL	0	0	-500	-15	AG	232	4.7	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NE3	40	48	6.0
2. SE3	40	-48	6.0
3. SW3	-40	-48	6.0
4. NW3	-40	48	6.0
5. NE7	53	61	6.0
6. SE7	53	-61	6.0
7. SW7	-53	-61	6.0
8. NW7	-53	61	6.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	259.	1.4	.0	.0	.7	.0	.0	.0	.0	.0
2. SE3	354.	1.8	.0	.0	1.3	.2	.0	.0	.0	.0
3. SW3	8.	1.4	.0	.0	.9	.0	.0	.0	.0	.0
4. NW3	95.	1.4	.0	.0	.5	.0	.0	.0	.0	.0
5. NE7	258.	1.1	.0	.0	.6	.0	.0	.0	.0	.0
6. SE7	352.	1.3	.0	.0	.9	.0	.0	.0	.0	.0
7. SW7	10.	1.1	.0	.0	.7	.0	.0	.0	.0	.0
8. NW7	96.	1.1	.0	.0	.5	.0	.0	.0	.0	.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.1	.1	.0	.0	.3	.0	.0	.0	.0	.0	.1
2. SE3	.0	.1	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
3. SW3	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0
4. NW3	.0	.5	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
5. NE7	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0
6. SE7	.0	.1	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
7. SW7	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0
8. NW7	.0	.4	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0

JOB: PASADENA AVENUE AND CALIFORNIA BOULEVARD AM NP
RUN: (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	0. (FT)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	5. DEGREES	TEMP=	15.6 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. NF	1800	0	1900	0	AG	1580	3.0	.0	65.0
B. NA	1800	0	1900	0	AG	1554	5.5	.0	60.0
C. ND	8	0	8	500	AG	2265	5.5	.0	45.0
D. NE	8	500	8	1500	AG	2265	3.0	.0	65.0
E. SF	8	-1000	8	0	AG	0	3.0	.0	35.0
F. SA	8	-500	8	0	AG	0	5.3	.0	33.0
G. SD	8	0	1900	500	AG	0	3.4	.0	33.0
H. SE	8	0	1900	1500	AG	0	3.0	.0	35.0
I. WF	1500	23	500	23	AG	744	3.0	.0	50.0
J. WA	500	23	0	23	AG	744	4.7	.0	45.0
K. WD	0	23	-500	23	AG	237	3.3	.0	33.0
L. WE	-500	23	-1500	23	AG	237	3.0	.0	50.0
M. EF	-1500	-23	-500	-23	AG	1282	3.0	.0	50.0
N. EA	-500	-23	0	-23	AG	1050	5.1	.0	45.0
O. ED	0	-23	500	-23	AG	1104	3.5	.0	33.0
P. EE	500	-23	1500	-23	AG	1104	3.0	.0	50.0
Q. NL	1900	0	1800	0	AG	26	5.3	.0	33.0
R. SL	0	-1900	0	-1800	AG	0	5.3	.0	33.0
S. WL	0	-1900	0	-1800	AG	0	4.7	.0	33.0
T. EL	0	0	-500	-15	AG	232	4.7	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NE3	40	48	6.0
2. SE3	40	-48	6.0
3. SW3	-40	-48	6.0
4. NW3	-40	48	6.0
5. NE7	53	61	6.0
6. SE7	53	-61	6.0
7. SW7	-53	-61	6.0
8. NW7	-53	61	6.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	259.	1.4	.0	.0	.7	.0	.0	.0	.0	.0
2. SE3	354.	1.8	.0	.0	1.3	.2	.0	.0	.0	.0
3. SW3	8.	1.4	.0	.0	.9	.0	.0	.0	.0	.0
4. NW3	95.	1.4	.0	.0	.5	.0	.0	.0	.0	.0
5. NE7	258.	1.1	.0	.0	.6	.0	.0	.0	.0	.0
6. SE7	352.	1.3	.0	.0	.9	.0	.0	.0	.0	.0
7. SW7	10.	1.1	.0	.0	.7	.0	.0	.0	.0	.0
8. NW7	96.	1.1	.0	.0	.5	.0	.0	.0	.0	.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.1	.1	.0	.0	.3	.0	.0	.0	.0	.0	.1
2. SE3	.0	.1	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
3. SW3	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0
4. NW3	.0	.5	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
5. NE7	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0
6. SE7	.0	.1	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
7. SW7	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0
8. NW7	.0	.4	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0

JOB: FAIR OAKS AVENUE AND CALIFORNIA BOULEVARD PM WP
RUN: (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0= 100. CM	ALT= 0. (FT)
BRG=	WORST CASE	VD= .0 CM/S	
CLAS=	7 (G)	VS= .0 CM/S	
MIXH=	1000. M	AMB= .0 PPM	
SIGTH=	5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. NF	23	-1500	23	-500	AG	1398	3.0	.0	50.0
B. NA	23	-500	23	0	AG	1153	4.9	.0	45.0
C. ND	23	0	23	500	AG	1197	3.5	.0	33.0
D. NE	23	500	23	1500	AG	1197	3.0	.0	50.0
E. SF	-23	1500	-23	500	AG	1156	3.0	.0	50.0
F. SA	-23	500	-23	0	AG	1056	4.9	.0	45.0
G. SD	-23	0	-23	-500	AG	1326	3.6	.0	33.0
H. SE	-23	-500	-23	-1500	AG	1326	3.0	.0	50.0
I. WF	1500	23	500	23	AG	940	3.0	.0	50.0
J. WA	500	23	0	23	AG	788	5.5	.0	45.0
K. WD	0	23	-500	23	AG	1057	3.7	.0	33.0
L. WE	-500	23	-1500	23	AG	1057	3.0	.0	50.0
M. EF	-1500	-23	-500	-23	AG	971	3.0	.0	50.0
N. EA	-500	-23	0	-23	AG	872	5.5	.0	45.0
O. ED	0	-23	500	-23	AG	885	3.6	.0	33.0
P. EE	500	-23	1500	-23	AG	885	3.0	.0	50.0
Q. NL	0	0	15	-500	AG	245	4.7	.0	33.0
R. SL	0	0	-15	500	AG	100	4.7	.0	33.0
S. WL	0	0	500	15	AG	152	5.3	.0	33.0
T. EL	0	0	-500	-15	AG	99	5.3	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NE3	48	48	6.0
2. SE3	48	-48	6.0
3. SW3	-48	-48	6.0
4. NW3	-48	48	6.0
5. NE7	61	61	6.0
6. SE7	61	-61	6.0
7. SW7	-61	-61	6.0
8. NW7	-61	61	6.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	262.	1.5	.0	.0	.3	.0	.0	.2	.0	.0
2. SE3	352.	1.6	.0	.2	.6	.0	.1	.2	.0	.0
3. SW3	81.	1.5	.0	.2	.0	.0	.0	.0	.3	.0
4. NW3	172.	1.7	.1	.2	.0	.0	.0	.2	.6	.0
5. NE7	187.	1.4	.0	.6	.0	.0	.0	.0	.0	.2
6. SE7	277.	1.3	.0	.3	.0	.0	.0	.0	.1	.0
7. SW7	7.	1.3	.0	.0	.0	.2	.0	.5	.0	.0
8. NW7	170.	1.2	.0	.2	.0	.0	.0	.0	.4	.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.2	.5	.0	.0	.2	.0	.0	.0	.0	.0	.0
2. SE3	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
3. SW3	.0	.2	.0	.0	.0	.2	.4	.0	.0	.0	.0	.0
4. NW3	.0	.0	.2	.0	.0	.2	.0	.0	.1	.0	.0	.0
5. NE7	.0	.2	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
6. SE7	.0	.0	.0	.2	.0	.5	.0	.0	.0	.0	.0	.0
7. SW7	.0	.0	.1	.0	.0	.2	.0	.0	.0	.0	.0	.0
8. NW7	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0

JOB: FAIR OAKS AVENUE AND CALIFORNIA BOULEVARD PM NP
RUN: (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	0. (FT)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	5. DEGREES	TEMP=	15.6 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. NF	23	-1500	23	-500	AG	1385	3.0	.0	50.0
B. NA	23	-500	23	0	AG	1146	4.9	.0	45.0
C. ND	23	0	23	500	AG	1190	3.5	.0	33.0
D. NE	23	500	23	1500	AG	1190	3.0	.0	50.0
E. SF	-23	1500	-23	500	AG	1156	3.0	.0	50.0
F. SA	-23	500	-23	0	AG	1056	4.9	.0	45.0
G. SD	-23	0	-23	-500	AG	1326	3.6	.0	33.0
H. SE	-23	-500	-23	-1500	AG	1326	3.0	.0	50.0
I. WF	1500	23	500	23	AG	937	3.0	.0	50.0
J. WA	500	23	0	23	AG	785	5.5	.0	45.0
K. WD	0	23	-500	23	AG	1048	3.7	.0	33.0
L. WE	-500	23	-1500	23	AG	1048	3.0	.0	50.0
M. EF	-1500	-23	-500	-23	AG	971	3.0	.0	50.0
N. EA	-500	-23	0	-23	AG	872	5.5	.0	45.0
O. ED	0	-23	500	-23	AG	885	3.6	.0	33.0
P. EE	500	-23	1500	-23	AG	885	3.0	.0	50.0
Q. NL	0	0	15	-500	AG	239	4.7	.0	33.0
R. SL	0	0	-15	500	AG	100	4.7	.0	33.0
S. WL	0	0	500	15	AG	152	5.3	.0	33.0
T. EL	0	0	-500	-15	AG	99	5.3	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NE3	48	48	6.0
2. SE3	48	-48	6.0
3. SW3	-48	-48	6.0
4. NW3	-48	48	6.0
5. NE7	61	61	6.0
6. SE7	61	-61	6.0
7. SW7	-61	-61	6.0
8. NW7	-61	61	6.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	262.	1.5	.0	.0	.3	.0	.0	.2	.0	.0
2. SE3	352.	1.6	.0	.2	.5	.0	.1	.2	.0	.0
3. SW3	81.	1.5	.0	.2	.0	.0	.0	.0	.3	.0
4. NW3	172.	1.7	.1	.2	.0	.0	.0	.2	.6	.0
5. NE7	187.	1.3	.0	.6	.0	.0	.0	.0	.0	.2
6. SE7	277.	1.3	.0	.3	.0	.0	.0	.0	.1	.0
7. SW7	7.	1.3	.0	.0	.0	.2	.0	.5	.0	.0
8. NW7	170.	1.2	.0	.2	.0	.0	.0	.0	.4	.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.2	.5	.0	.0	.2	.0	.0	.0	.0	.0	.0
2. SE3	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
3. SW3	.0	.2	.0	.0	.0	.2	.4	.0	.0	.0	.0	.0
4. NW3	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0
5. NE7	.0	.2	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
6. SE7	.0	.0	.0	.2	.0	.5	.0	.0	.0	.0	.0	.0
7. SW7	.0	.0	.1	.0	.0	.2	.0	.0	.0	.0	.0	.0
8. NW7	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0

JOB: FAIR OAKS AVENUE AND CALIFORNIA BOULEVARD AM WP
RUN: (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	0. (FT)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	5. DEGREES	TEMP=	15.6 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. NF	23	-1500	23	-500	AG	1184	3.0	.0	50.0
B. NA	23	-500	23	0	AG	972	4.9	.0	45.0
C. ND	23	0	23	500	AG	1018	3.4	.0	33.0
D. NE	23	500	23	1500	AG	1018	3.0	.0	50.0
E. SF	-23	1500	-23	500	AG	955	3.0	.0	50.0
F. SA	-23	500	-23	0	AG	895	4.9	.0	45.0
G. SD	-23	0	-23	-500	AG	1291	3.5	.0	33.0
H. SE	-23	-500	-23	-1500	AG	1291	3.0	.0	50.0
I. WF	1500	23	500	23	AG	822	3.0	.0	50.0
J. WA	500	23	0	23	AG	618	5.3	.0	45.0
K. WD	0	23	-500	23	AG	843	3.5	.0	33.0
L. WE	-500	23	-1500	23	AG	843	3.0	.0	50.0
M. EF	-1500	-23	-500	-23	AG	899	3.0	.0	50.0
N. EA	-500	-23	0	-23	AG	816	5.3	.0	45.0
O. ED	0	-23	500	-23	AG	708	3.5	.0	33.0
P. EE	500	-23	1500	-23	AG	708	3.0	.0	50.0
Q. NL	0	0	15	-500	AG	212	4.9	.0	33.0
R. SL	0	0	-15	500	AG	60	4.9	.0	33.0
S. WL	0	0	500	15	AG	204	5.3	.0	33.0
T. EL	0	0	-500	-15	AG	83	5.3	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NE3	48	48	6.0
2. SE3	48	-48	6.0
3. SW3	-48	-48	6.0
4. NW3	-48	48	6.0
5. NE7	61	61	6.0
6. SE7	61	-61	6.0
7. SW7	-61	-61	6.0
8. NW7	-61	61	6.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	185.	1.5	.1	.7	.0	.0	.0	.0	.0	.2
2. SE3	352.	1.3	.0	.2	.5	.0	.0	.2	.0	.0
3. SW3	81.	1.4	.0	.2	.0	.0	.0	.0	.3	.0
4. NW3	172.	1.6	.1	.2	.0	.0	.0	.2	.6	.0
5. NE7	187.	1.2	.0	.5	.0	.0	.0	.0	.0	.2
6. SE7	277.	1.2	.0	.2	.0	.0	.0	.0	.1	.0
7. SW7	7.	1.1	.0	.0	.0	.1	.0	.5	.0	.0
8. NW7	171.	1.1	.1	.2	.0	.0	.0	.0	.4	.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	.0	.1	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
3. SW3	.0	.2	.0	.0	.0	.2	.3	.0	.0	.0	.1	.0
4. NW3	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0
5. NE7	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	.0	.0	.0	.1	.0	.5	.0	.0	.0	.0	.0	.0
7. SW7	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0
8. NW7	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0

JOB: FAIR OAKS AVENUE AND CALIFORNIA BOULEVARD AM NP
RUN: (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	0. (FT)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	5. DEGREES	TEMP=	15.6 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. NF	23	-1500	23	-500	AG	1182	3.0	.0	50.0
B. NA	23	-500	23	0	AG	971	4.9	.0	45.0
C. ND	23	0	23	500	AG	1017	3.4	.0	33.0
D. NE	23	500	23	1500	AG	1017	3.0	.0	50.0
E. SF	-23	1500	-23	500	AG	945	3.0	.0	50.0
F. SA	-23	500	-23	0	AG	895	4.9	.0	45.0
G. SD	-23	0	-23	-500	AG	1291	3.5	.0	33.0
H. SE	-23	-500	-23	-1500	AG	1291	3.0	.0	50.0
I. WF	1500	23	500	23	AG	822	3.0	.0	50.0
J. WA	500	23	0	23	AG	618	5.3	.0	45.0
K. WD	0	23	-500	23	AG	842	3.5	.0	33.0
L. WE	-500	23	-1500	23	AG	842	3.0	.0	50.0
M. EF	-1500	-23	-500	-23	AG	887	3.0	.0	50.0
N. EA	-500	-23	0	-23	AG	804	5.3	.0	45.0
O. ED	0	-23	500	-23	AG	686	3.5	.0	33.0
P. EE	500	-23	1500	-23	AG	686	3.0	.0	50.0
Q. NL	0	0	15	-500	AG	211	4.9	.0	33.0
R. SL	0	0	-15	500	AG	50	4.9	.0	33.0
S. WL	0	0	500	15	AG	204	5.3	.0	33.0
T. EL	0	0	-500	-15	AG	83	5.3	.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NE3	48	48	6.0
2. SE3	48	-48	6.0
3. SW3	-48	-48	6.0
4. NW3	-48	48	6.0
5. NE7	61	61	6.0
6. SE7	61	-61	6.0
7. SW7	-61	-61	6.0
8. NW7	-61	61	6.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	185.	1.5	.1	.7	.0	.0	.0	.0	.0	.2
2. SE3	352.	1.3	.0	.2	.5	.0	.0	.2	.0	.0
3. SW3	81.	1.3	.0	.2	.0	.0	.0	.0	.3	.0
4. NW3	172.	1.5	.1	.2	.0	.0	.0	.2	.6	.0
5. NE7	187.	1.2	.0	.5	.0	.0	.0	.0	.0	.2
6. SE7	277.	1.2	.0	.2	.0	.0	.0	.0	.1	.0
7. SW7	7.	1.1	.0	.0	.0	.1	.0	.5	.0	.0
8. NW7	171.	1.1	.1	.2	.0	.0	.0	.0	.4	.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
3. SW3	.0	.2	.0	.0	.0	.2	.3	.0	.0	.0	.1	.0
4. NW3	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0
5. NE7	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	.0	.0	.0	.1	.0	.4	.0	.0	.0	.0	.0	.0
7. SW7	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0
8. NW7	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0

2010

Pollutant Name: **Carbon Monoxide** **Temperature:** **60F** **Relative Humidity:** **50%**

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	4.285	6.329	6.626	19.534	51.597	34.705	6.741
4	4.145	6.106	6.427	19.534	51.597	34.705	6.577
5	4.013	5.897	6.241	19.534	51.597	34.705	6.425
6	3.889	5.699	5.968	18.238	47.286	33.3	6.154
7	3.773	5.514	5.718	17.031	43.431	32.014	5.901
8	3.664	5.34	5.486	15.907	39.98	30.837	5.666
9	3.56	5.177	5.272	14.861	36.886	29.76	5.446
10	3.463	5.023	5.075	13.887	34.108	28.775	5.241
11	3.371	4.878	4.891	12.982	31.609	27.877	5.049
12	3.283	4.742	4.721	12.14	29.359	27.057	4.87
13	3.2	4.613	4.562	11.36	27.329	26.311	4.702
14	3.122	4.491	4.414	10.638	25.497	25.633	4.545
15	3.047	4.375	4.277	9.971	23.841	25.019	4.398
16	2.976	4.266	4.148	9.358	22.343	24.466	4.26
17	2.908	4.162	4.027	8.796	20.985	23.97	4.132
18	2.843	4.064	3.914	8.283	19.754	23.527	4.012
19	2.781	3.97	3.808	7.805	18.636	23.135	3.899
20	2.722	3.881	3.708	7.501	17.621	22.792	3.803
21	2.666	3.796	3.614	7.215	16.698	22.496	3.712
22	2.612	3.716	3.526	6.944	15.859	22.245	3.626
23	2.561	3.639	3.443	6.687	15.096	22.038	3.545
24	2.512	3.566	3.364	6.444	14.401	21.873	3.468
25	2.464	3.496	3.29	6.215	13.769	21.75	3.395
26	2.419	3.429	3.22	5.997	13.195	21.669	3.326
27	2.376	3.366	3.155	5.791	12.672	21.628	3.261
28	2.334	3.305	3.092	5.596	12.197	21.629	3.199
29	2.294	3.247	3.034	5.411	11.766	21.67	3.141
30	2.256	3.192	2.978	5.237	11.375	21.753	3.086
31	2.22	3.14	2.926	5.072	11.022	21.878	3.034
32	2.185	3.09	2.876	4.917	10.704	22.047	2.985
33	2.151	3.042	2.83	4.771	10.418	22.26	2.94
34	2.119	2.997	2.786	4.633	10.162	22.519	2.897
35	2.089	2.954	2.745	4.505	9.935	22.825	2.857
36	2.059	2.913	2.706	4.384	9.734	23.182	2.82
37	2.032	2.874	2.67	4.272	9.558	23.591	2.786
38	2.005	2.837	2.637	4.168	9.407	24.056	2.754
39	1.98	2.803	2.605	4.072	9.278	24.579	2.726
40	1.956	2.77	2.576	3.984	9.172	25.165	2.7

Appendix A-4

- Greenhouse Gas Emissions Inventory
  - Construction Emissions
  - Operational Emissions

CO_2e[d] (Metric Tons)		
Emission Source	**2009**	**2010**
CO_2 Emissions	14,390	5,844
CO_2e Emissions	**14,421**	**5,857**
2004 Statewide Total[c]	479,740,000	479,740,000
Net Increase as Percentage of 2004 Statewide Inventory	**0.00301%**	**0.00122%**

[a] *Mobile source values were derived using EMFAC2007 in addition to the California Climate Action Registry General Reporting Protocol; Version 3.0, April 2008.*

[b] *On site construction equipment values were derived using OFFROAD2007 in addition to the California Climate Action Registry General Reporting Protocol; Version 3.0, April 2008.*

GHG Inventory.

[d] *All CO_2E factors were derived using the California Climate*

Source: PCR Services Corporation, 2008.

Emission Source	CO_2E[e] (Metric Tons)
Existing	
On-road Vehicles[a]	1,626
Electricity[b]	157
Natural gas[c]	14
Total	**1,797**
Project	
On-road Vehicles[a]	2,345
Electricity[b]	585
Natural gas[c]	67
Total	**2,997**
Net Increase	
Total	1,200
2004 Statewide Total[d]	479,740,000
Net Increase as Percentage of 2004 Statewide Inventory	**0.00025%**

[a] *Mobile source values were derived using EMFAC2007 in addition to the California Climate Action Registry General Reporting Protocol; Version 3.0, April 2008.*

[b] *Electricity Usage Rates from Table A9-11-A, CEQA Air Quality Handbook, SCAQMD, 1993. Water conveyance energy rates from California Energy Commission Staff Report: California's Water - Energy Relationship. 2005*

[c] *Natural Gas Usage Rates from Table A9-12-A, CEQA Air Quality Handbook, SCAQMD, 1993.*

[d] *Statewide Greenhouse Gas Emissions Inventory: http://www.arb.ca.gov/cc/ccei/emsinv/emsinv.htm*

[e] *All CO2e factors were derived using the California Climate Action Registry General Reporting Protocol; Version 3.0, April 2008*

Sources: PCR Services Corporation, 2008.

Electricity

Land Use	1,000 Sqft	Usage Rate [a] (kWh\sq.ft\yr)	(KWh\year)	MWh\year
Existing				
Retail	6.1	13.55	82,655	83
Restaurant	6.5	47.45	309,611	310
Total Existing			**392,266**	**392**
Project				
Office	113.2	12.95	1,465,940	1,466
Total Project			**1,465,940**	**1,466**
Net Project Electricity Usage			**1,073,674**	**1,074**

Water Conveyance (Water and Wastewater)

Los Angeles County CO_2 2010 AVG Gram/M		Usage Rate [c]		
Los Angeles County CH_4 201	MGD	kWh/MG	(KWh\year)	MWh\year
Los Angeles County N_2O				
2010 AVG Gram/Mile[d]	0.02	10,200	**81,874**	**82**
Wastewater Treatment	0.03	2,500	**25,808**	**26**
Net Project Water Power Usage			**107,682**	**108**

GHG	lbs/MWh[b]	lbs	metric tons	CO_2E (metric tons)
Existing				
CO_2	878.71	344688.2765	156.3478447	156.3478447
CH_4	0.0067	2.628183875	0.001192123	0.025034587
N_2O	0.0037	1.451385125	0.000658337	0.204084371
Project				**156.58**
CO_2	878.71	1288136.137	584.2882468	584.2882468
CH_4	0.0067	9.821798	0.004455089	0.093556869
N_2O	0.0037	5.423978	0.002460273	0.762684639
Net				**585.14**
CO_2	878.71	1,038,069	471	471
CH_4	0.0067	8	0.00	0.08
N_2O	0.0037	4	0.00	1
				472 **Total Annual CO2e**

[a] Electricity Usage Rates from Table A9-11-A, CEQA Air Quality Handbook, SCAQMD, 1993.

[b] Electricity Usage Rates from California Energy Commission Staff Report: California's Water - Energy Relationship. 2005

[c] Emission factors for CO_2, CH_4, and N_2O were derived from the California Climate Action Registry General Reporting Protocol; Version 3.0, April 2008

Water and Wastewater Generation Factors

			Water			Wastewater		
Land Use	**Amount**	**Units**	**AF/Year/Unit**	**MG/Year/Unit**	**MG/Year**	**GPD/Unit**	**MG/Year/Unit**	**MG/Year**
Existing								
Retail	6.1	KSF	0.24	0.080	0.5	325	0.119	0.7
Restaurant	6.525	KSF	0.24	0.080	0.5	1000	0.365	2.4
Total Existing	12.625				**1.0**			**3.1**
Project								
Retail	113.2	KSF	0.24	0.080	9.0	325	0.119	13.4
Total Project	113.2				**9.0**			**13.4**
Net Project					8.0			10.3

Natural Gas

Land Use	1,000 Sqft	Usage Rate[c] (cu.ft\sq.ft\mo)	Total Natural Gas Usage (cu.ft\mo)	Total Natural Gas Usage (cu.ft\year)	Total Natural Gas Usage (MMBTU\year)
Existing					
Retail	6.1	2.9	17,690	212,280	217
Restaurant	6.5	4.8	31,320	375,840	383
Total Existing	12.6		49,010	**588,120**	**600**
Project					
Office	113.2	2.0	226,400	2,716,800	2,771
Total Project	113.2		**226,400**	**2,716,800**	**2,771**
Net Project			**177,390**	**2,128,680**	**2,171**

[a] Natural Gas Usage Rates from Table A9-12-A, CEQA Air Quality Handbook, SCAQMD, 1993.

Los Angeles County CO_2 2010 AVG Gram/Mile[c]

ounty CH_4 2010 A	Kg/MMBtu[b]	Kg	metric tons	CO_2E (Metric Tons)
Los Angeles County N_2O 2010 AVG Gram/Mile[d]				
CO_2	53.06	31,829.76	14.44	14.44
CH_4	0.0059	3.54	0.00	0.03
N_2O	0.0001	0.06	0.00	0.01
Project				**14.48**
CO_2	53.06	147,036.48	66.69	66.69
CH_4	0.0059	16.35	0.01	0.16
N_2O	0.0001	0.28	0.00	0.04
Net				**66.89**
CO_2	53.06	115,206.72	52.26	52.26
CH_4	0.0059	12.81	0.01	0.12
N_2O	0.0001	0.22	0.00	0.03

52.41 Total Annual CO2E

[b] Emission factors for CO_2, CH_4, and N_2O were derived from the California Climate Action Registry General Reporting Protocol; Version 3.0, April 2008.

On Road Mobile Source

Land Use	Daily VMT	Annual VMT[a]
Existing		
Retail	3,051.01	1,113,619
Restaurant	4,857.12	1,772,849
Total Existing	-	**2,886,467.45**
Project		
Office	11,405.72	4,163,088
Total Project	-	**4,163,087.80**
Net Project		**1,276,620.35**

[a] Multiplied Daily VMT by 365 to get Annual VMT
[b] Factors dervied from URBEMIS2007

Los Angeles County CO_2 2010 AVG Gram/Mile[c]	**547.0604286**
Los Angeles County CH_4 2010 AVG Gram/Mile[c]	**0.036714286**
Los Angeles County N_2O 2010 AVG Gram/Mile[d]	**0.05**

GHG	Gram/Mile	Grams	metric tons	CO_2E (Metric Tons)
Existing				
CO_2	547.0604286	1,579,072,120.25	1,579.07	1,579.0721203
CH_4	0.036714286	105,974.59	0.11	2.2254664
N_2O	0.05	144,323.37	0.14	44.7402455
Project				**1,626.0378321**
CO_2	547.06	2,277,460,596	2,277.46	2,277.4605960
CH_4	0.04	152,845	0.15	3.2097407
N_2O	0.05	208,154	0.21	64.5278609
Net				**2,345.1981976**
CO_2	547.06	698,388,476	698	698.3884758
CH_4	0.04	46,870	0	0.9842743
N_2O	0.05	63,831	0	19.7876154
				719.2 **Total Annual CO2E**

[c] Averaged EMFAC2007 fleet values for 0-65mph
[d] Emission factors for CH_4 and N_2O were derived from the California Climate Action Registry General Reporting Protocol; Version 2.2, March 2007

EMFAC2007 Summary

Pollutant Name: Carbon Dioxide Temperature: 60F Relative Humidity: 50%

CO2	
Speed	**Grams/Mile**
0	338.602
5	1197.57
10	912.3
15	721.114
20	592.09
25	508.049
30	451.396
35	414.788
40	393.87
45	386.331
50	391.43
55	409.848
60	443.826
65	497.632
AVG	**547.0604286**

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
0	0	0	940.439	5137.9	0	0	338.602
5	952.091	1183.196	1713.964	2855.16	2753.63	241.932	1197.57
10	719.578	894.536	1265.224	2382.04	2547.13	204.553	912.3
15	564.473	701.977	976.059	2016.42	2425.18	176.81	721.114
20	459.588	571.764	785.811	1759.9	2350.93	156.206	592.09
25	388.374	483.353	659.386	1660.06	2304.79	141.058	508.049
30	340.626	424.074	576.032	1581.98	2276.04	130.246	451.396
35	310.059	386.127	523.384	1522.08	2258.74	123.051	414.788
40	292.917	364.846	494.242	1478.42	2249.63	119.07	393.87
45	287.193	357.739	484.85	1450.02	2247.12	118.172	386.331
50	292.233	363.996	494.045	1436.63	2250.77	120.503	391.43
55	308.613	384.331	523.009	1438.63	2261.2	126.535	409.848
60	338.244	421.118	575.534	1457.13	2280.28	137.183	443.826
65	384.757	478.863	658.896	1494.31	2311.65	154.013	497.632

Pollutant Name: Methane Temperature: 60F Relative Humidity: 50%

CH4	
Speed	**Grams/Mile**
0	0.038
5	0.087
10	0.065
15	0.05
20	0.04
25	0.033
30	0.029
35	0.026
40	0.024
45	0.023
50	0.023
55	0.023
60	0.025
65	0.028
AVG	**0.036714286**

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
0	0	0	0.162	0.423	0	0	0.038
5	0.065	0.079	0.101	0.354	0.177	0.313	0.087
10	0.05	0.062	0.079	0.207	0.125	0.267	0.065
15	0.04	0.05	0.064	0.111	0.092	0.238	0.05
20	0.032	0.041	0.052	0.067	0.07	0.218	0.04
25	0.027	0.034	0.044	0.055	0.056	0.206	0.033
30	0.023	0.03	0.039	0.046	0.047	0.2	0.029
35	0.021	0.027	0.035	0.039	0.04	0.199	0.026
40	0.019	0.025	0.033	0.034	0.036	0.202	0.024
45	0.018	0.024	0.031	0.032	0.033	0.21	0.023
50	0.018	0.023	0.031	0.032	0.032	0.224	0.023
55	0.019	0.024	0.031	0.033	0.031	0.246	0.023
60	0.02	0.026	0.033	0.037	0.032	0.28	0.025
65	0.022	0.028	0.036	0.043	0.033	0.333	0.028

Appendix C-1

Cultural Resources (Historic Search Results)

HISTORIC SEARCH RESULTS

PREVIOUSLY IDENTIFIED HISTORIC RESOURCES WITHIN THE IMMEDIATE PROJECT VICINITY (1/4 MILE)

The survey study area includes previously identified historic resources within ¼ -mile radius of the project site. The National Register of Historic Places, the State of California Historic Resources Inventory, the Historic Property Data File for Los Angeles County, and the City of Pasadena's list of Designated Historic Properties were consulted in order to determine the number and location of previously recorded historic resources within a ¼ -mile radius of the project site.

National Register eligible or listed properties within the immediate proposed project vicinity total three historic districts and eleven individually-listed properties.

The districts and their contributing properties within a ¼ -mile radius are:

1. Old Pasadena Historic District, Arroyo Parkway (NRS: 1S; 9/15/1983)
    a. Union Garage Company, 300 South Fair Oaks Avenue (NRS: 1D; 9/15/1983)
    b. Tanner's Auto Livery, 30 South Pasadena Avenue (NRS 1D; 9/15/1983)
2. Bungalow Courts of Pasadena (Multiple Property Listing; 5/9/1983)
    a. Palmetto Court 100 Palmetto Drive (NRS: 1D; 7/11/1983)
3. South Marengo Historic District, Marengo Avenue (NRS: 1S; 6/12/1982)

Individually-listed properties within a ¼ -mile radius are:

1. Cornet Building, 411 South Arroyo Parkway (NRS: 7N1; 6/19/1991)
2. Home Laundry, 432 South Arroyo Parkway (NRS: 1S; 6/18/1987)
3. Bekins Moving and Storage, 511 South Fair Oaks Avenue (NRS: 1S; 12/12/1997)
4. Bekins Moving and Storage Roof-Top Signage, 511 South Fair Oaks Avenue (NRS: 1S; 11/20/1995)
5. Don Carlos Court, 374 South Marengo Avenue (NRS: 1S; 7/11/1983)

6. Evanston Inn, 385 Marengo Avenue (NRS 1S; 9/13/1984)

7. Bryan Court, 427 South Marengo Avenue (NRS 1S; 4/16/1986)

8. Sara Thel Court, 618 Marengo Avenue (NRS 1S; 7/11/1983)

9. Cottage Court, 642 South Marengo Avenue (NRS 1S; 7/11/1983)

10. Colonial Courts, 744 South Marengo Avenue (NRS 1S; 7/11/1983)

11. Royal Laundry/Milus Textile Service, 443 South Raymond Avenue (NRS 1S; 9/27/2007)

The National Register properties listed above are also listed on the California Register of Historic Places and have all been determined to have a National Register of Historic Places Status of 1 or 2, a California Historical Landmark numbering 770 or higher, or are a California Point of Historical Interest listed after 1/1/1998. Each property also has an assigned California Historical Resource Status Code (NRS), which specifically identifies the status of the resource as either evaluated, eligible for, or a listed property at national, state and/or local levels.

Within the ¼ -mile radius, there are no additional properties listed on the California Register or California Points of Historical Interest and no California Historical Landmarks.

At the local level, there is one property, a sign, which is designated by the City of Pasadena:

1. Voca Missionary Society Sign, 251 South Fair Oaks (Historic Sign; 11/4/2002)

In addition to those listed above, there are a total of 207 identified properties within the study area that have been surveyed and are recorded in the California Historic Resources Inventory. These properties reflect numerous NRS status codes and they appear eligible for the California Register as an individual property through survey evaluation, are contributing properties to a historic district determined eligible for local listing or designation, are individual properties that are eligible for local listing or designation, or are properties that require reevaluation.

While many of the identified historic resources listed above are in proximity to the subject property, none are readily viewed from the project site. As a result, no potential indirect impacts on these resources due to the proposed project are expected and further evaluation of the resources is not required.

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
125754		449 S ARIZONA AVE		LOS ANGELES	U	1929	HIST.RES.	DOE-19-99-0395-0000	06/14/99	6Y	
							PROJ.REVW.	HUD990614F	06/14/99	6Y	
064977	19-173441	503 S ARIZONA AVE	RESIDENCE	LOS ANGELES	U		PROJ.REVW.	HUD861112G	11/24/86	6Y	
154691		672 S ARIZONA AVE		LOS ANGELES		1924	PROJ.REVW.	HUD050627E	06/27/05	6U	
066390	19-173604	962 S ARIZONA AVE	COMMERCIAL REHABILITATION	LOS ANGELES	U		PROJ.REVW.	HUD871209P	01/05/88	6Y	
026333	19-172320	1020 S ARLINGTON AVE	GEORGE & GERTRUDE TAYLOR HOME	LOS ANGELES	P	1920	HIST.SURV.	0053-3661-0000		3S	
026346	19-172333	1023 S ARLINGTON AVE	JOSEPH & LOLA FORD HOME	LOS ANGELES	P	1920	HIST.SURV.	0053-3674-0000		3S	
026334	19-172321	1026 S ARLINGTON AVE	GARTRELL M HARBESON HOME	LOS ANGELES	P	1915	HIST.SURV.	0053-3662-0000		3S	
026347	19-172334	1029 S ARLINGTON AVE	SOL STERNBERG HOME	LOS ANGELES	P	1920	HIST.SURV.	0053-3675-0000		3S	
026335	19-172322	1032 S ARLINGTON AVE	MICHHELL LEWIS HOME	LOS ANGELES	P	1921	HIST.SURV.	0053-3663-0000		3S	
026348	19-172335	1037 S ARLINGTON AVE	GUSSIE E MASTERS HOME	LOS ANGELES	P	1922	HIST.SURV.	0053-3676-0000		3S	
026336	19-172323	1038 S ARLINGTON AVE	GEORGE F HAWKS HOME	LOS ANGELES	P	1922	HIST.SURV.	0053-3664-0000		3S	
026337	19-172324	1044 S ARLINGTON AVE	WILLIAM F GADDES HOME	LOS ANGELES	P	1921	HIST.SURV.	0053-3665-0000		3S	
026349	19-172336	1045 S ARLINGTON AVE	SAMUEL R HORNSTEIN HOME	LOS ANGELES	P	1922	HIST.SURV.	0053-3677-0000		3S	
026338	19-172325	1050 S ARLINGTON AVE	ETHEL M DIBBLE HOME	LOS ANGELES	P	1920	HIST.SURV.	0053-3666-0000		3S	
026350	19-172337	1051 S ARLINGTON AVE	FRANK E DAY HOME	LOS ANGELES	P	1920	HIST.SURV.	0053-3678-0000		3S	
026339	19-172326	1056 S ARLINGTON AVE	ANNA ZUCKER HOME	LOS ANGELES	P	1924	HIST.SURV.	0053-3667-0000		3S	
026351	19-172338	1057 S ARLINGTON AVE	ANNA U. SHOBE HOME	LOS ANGELES	P	1920	HIST.SURV.	0053-3679-0000		3S	
026352	19-172339	1063 S ARLINGTON AVE	ROSE F. GORDENSON HOME	LOS ANGELES	P	1922	HIST.SURV.	0053-3680-0000		3S	
026340	19-172327	1110 S ARLINGTON AVE	ISAAC MILBANK HOME	LOS ANGELES	P	1913	HIST.SURV.	0053-3668-0000		3S	
026341	19-172328	1130 S ARLINGTON AVE	LYMAN R McFIE HOME	LOS ANGELES	P	1913	HIST.SURV.	0053-3669-0000		3S	
026353	19-172340	1135 S ARLINGTON AVE		LOS ANGELES	P	1941	HIST.SURV.	0053-3681-0000		7R	
026354	19-172341	1209 S ARLINGTON AVE	ERNEST A. MONTGOMERY HOME	LOS ANGELES	P	1906	HIST.SURV.	0053-3682-0000		7N	
026342	19-172329	1214 S ARLINGTON AVE		LOS ANGELES	P	1921	HIST.SURV.	0053-3670-0000		7N	
026343	19-172330	1220 S ARLINGTON AVE		LOS ANGELES	P	1925	HIST.SURV.	0053-3671-0000		7N	
026355	19-172342	1221 S ARLINGTON AVE		LOS ANGELES	P	1925	HIST.SURV.	0053-3683-0000		3S	
026356	19-172343	1225 S ARLINGTON AVE		LOS ANGELES	P	1924	HIST.SURV.	0053-3684-0000		3S	
026357	19-172344	1227 S ARLINGTON AVE	CARL L. HOSTER HOME	LOS ANGELES	P	1924	HIST.SURV.	0053-3685-0000		7R	
026358	19-172345	1233 S ARLINGTON AVE	H GEORGE BEER	LOS ANGELES	P	1923	HIST.SURV.	0053-3686-0000		3S	
026359	19-172346	1239 S ARLINGTON AVE		LOS ANGELES	P	1920	HIST.SURV.	0053-3687-0000		3S	
026344	19-172331	1240 S ARLINGTON AVE	WILLIAM L. THORNTON HOME	LOS ANGELES	P	1911	HIST.SURV.	0053-3672-0000		7N	
026360	19-172347	1245 S ARLINGTON AVE	DAVID E SPANGLER	LOS ANGELES	P	1915	HIST.SURV.	0053-3688-0000		7N	
026345	19-172332	1250 S ARLINGTON AVE	JON P SCHIELEIN HOME	LOS ANGELES	P	1925	HIST.SURV.	0053-3673-0000		3S	
026361	19-172348	1251 S ARLINGTON AVE		LOS ANGELES	P	1922	HIST.SURV.	0053-3689-0000		3S	
021251	19-167291	1803 S ARLINGTON AVE	IRVING, WASHINGTON, BRANCH LIBRARY	LOS ANGELES	M	1926	HIST.RES.	DOE-19-94-0372-0000	08/27/94	2S2	
							PROJ.REVW.	HRG940202Z	08/27/94	2S2	
							HIST.RES.	NPS-87001010-0000	05/19/87	1S	AC
098499	19-175606	3550 S ARLINGTON AVE		LOS ANGELES	P	1911	PROJ.REVW.	HUD951002B	11/28/95	6Y	
073744	19-174103	432 S ARROYO PARKWAY	HOME LAUNDRY	LOS ANGELES	P	0	TAX.CERT.	537.9-19-0118	08/06/87	2D3	
125726		1251 S AUGUSTA AVE		LOS ANGELES	U	1922	HIST.RES.	DOE-19-99-0367-0000	07/29/99	6Y	
							PROJ.REVW.	HUD990729D	07/29/99	6Y	
097930	19-175364	4107 S AVALON BLVD		LOS ANGELES	M	1921	HIST.RES.	DOE-19-94-0077-0000	07/01/94	6Y	
							PROJ.REVW.	HRG940202Z	07/01/94	6Y	
097931	19-175365	4109 S AVALON BLVD		LOS ANGELES	M	1921	HIST.RES.	DOE-19-94-0078-0000	04/29/94	6Y	
							PROJ.REVW.	HRG940202Z	04/20/94	6Y	
077531	19-174393	4601 S AVALON BLVD		LOS ANGELES	U	1937	PROJ.REVW.	HUD920723E	08/26/92	6Y	
077524	19-174392	4607 S AVALON BLVD		LOS ANGELES	U	1922	PROJ.REVW.	HUD920723D	08/26/92	6Y	
086446	19-174772	5412 S AVALON BLVD		LOS ANGELES	U	1927	HIST.SURV.	0053-4751-0000	06/01/92	6Z	
162357		7301 S AVALON BLVD		LOS ANGELES	P	1947	PROJ.REVW.	FCC070925E	10/31/07	6Y	
							PROJ.REVW.	FCC060515G	06/06/06	6Y	
131052		10318 S AVALON BLVD		LOS ANGELES		1944	HIST.RES.	DOE-19-02-0163-0000	04/02/02	6Y	
							PROJ.REVW.	HUD020402AG	04/02/02	6Y	
148168		650 S AVE 21	EDISON ELECTRIC COMPANY, LOS ANGEL	LOS ANGELES	P	1903	HIST.RES.	DOE-19-03-0455-0000	12/17/03	2S2	AC
							PROJ.REVW.	FCC021212A	12/17/03	2S2	AC
024563	19-170584	137 S AVE 49	EL DESCANSO RESTHOME	LOS ANGELES	P	1910	HIST.SURV.	0053-2031-0000		7N	
024564	19-170585	121 S AVE 50	SAVOY APARTMENTS	LOS ANGELES	P	1912	HIST.SURV.	0053-2032-0000		7R	

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
098594	19-185017	218 ARLINGTON DR		PASADENA	S	1937	HIST.RES.	DOE-19-83-0016-0056	03/31/83	2D2	AC
							PROJ.REVW.	FHWA830201A	02/28/83	2D2	AC
146239		270 ARLINGTON DR	STORRIER-STEARNS JAPANESE GARDEN	PASADENA	P	1937	HIST.RES.	NPS-05000050-9999	02/15/05	1S	C
							NAT.REG.	19-0451	05/06/04	3S	C
153089		270 ARLINGTON DR	STORRIER-STEARNS LANTERN #1	PASADENA	P		HIST.RES.	NPS-05000050-0011	02/15/05	1D	C
153088		270 ARLINGTON DR	STORRIER-STEARNS GARDEN WALL	PASADENA	P		HIST.RES.	NPS-05000050-0010	02/15/05	1D	C
153093		270 ARLINGTON DR	STORRIER-STEARNS LANTERN #4	PASADENA	P		HIST.RES.	NPS-05000050-0013	02/15/05	1D	C
153091		270 ARLINGTON DR	STORRIER-STEARNS LANTERN #2	PASADENA	P		HIST.RES.	NPS-05000050-0012	02/15/05	1D	C
153094		270 ARLINGTON DR	STORRIER-STEARS LANTERN #5	PASADENA	P		HIST.RES.	NPS-05000050-0014	02/15/05	1D	C
153092		270 ARLINGTON DR	STORRIER-STEARNS LANTERN #4	PASADENA	P		HIST.RES.	NPS-05000050-0013	02/15/05	1D	C
153086		270 ARLINGTON DR	STORRIER-STEARNS POND #2	PASADENA	P		HIST.RES.	NPS-05000050-0008	02/15/05	1D	C
153082		270 ARLINGTON DR	STORRIER-STEARNS BRIDGE #2	PASADENA	P		HIST.RES.	NPS-05000050-0004	02/15/05	1D	C
153087		270 ARLINGTON DR	STORRIER-STEARNS RETAINING WALL	PASADENA	P		HIST.RES.	NPS-05000050-0009	02/15/05	1D	C
153081		270 ARLINGTON DR	STORRIER-STEARNS BRIDGE #1	PASADENA	P		HIST.RES.	NPS-05000050-0003	02/15/05	1D	C
153083		270 ARLINGTON DR	STORRIER-STEARNS BRIDGE #3	PASADENA	P		HIST.RES.	NPS-05000050-0005	02/15/05	1D	C
153085		270 ARLINGTON DR	STORRIER-STEARNS POND #1	PASADENA	P		HIST.RES.	NPS-05000050-0007	02/15/05	1D	C
153084		270 ARLINGTON DR	STORRIER-STEARNS BRIDGE #4	PASADENA	P		HIST.RES.	NPS-05000050-0006	02/15/05	1D	C
153080		270 ARLINGTON DR	STORRIER-STEARNS TEAHOUSE	PASADENA	P	1981	HIST.RES.	NPS-05000050-0002	02/15/05	6X	
153079		270 ARLINGTON DR	STORRIER-STEARNS WAYSTATION	PASADENA	P		HIST.RES.	NPS-05000050-0001	02/15/05	1D	C
076793	19-183697	1005 ARMADA DR		PASADENA	P	1958	HIST.SURV.	1109-0133-0095	04/07/83	6Y	
069426	19-183244	1010 ARMADA DR		PASADENA	P	1931	HIST.SURV.	1109-0133-0097	04/07/83	1D	C
069438	19-183247	1024 ARMADA DR		PASADENA	P	1956	HIST.SURV.	1109-0133-0098	04/07/83	6Y	
069490	19-183254	1030 ARMADA DR		PASADENA	P	1922	HIST.SURV.	1109-0133-0099	04/07/83	1D	C
069582	19-183255	1036 ARMADA DR		PASADENA	P	1922	HIST.SURV.	1109-0133-0100	04/07/83	1D	C
076794	19-183698	1040 ARMADA DR		PASADENA	P	1924	HIST.SURV.	1109-0133-0101	04/07/83	1D	C
076796	19-183699	1044 ARMADA DR		PASADENA	P	1920	HIST.SURV.	1109-0133-0102	04/07/83	1D	C
076798	19-183700	1048 ARMADA DR		PASADENA	P	1920	HIST.SURV.	1109-0133-0103	04/07/83	1D	C
076800	19-183701	1054 ARMADA DR		PASADENA	P	1922	HIST.SURV.	1109-0133-0104	04/07/83	1D	C
076802	19-183702	1064 ARMADA DR		PASADENA	P	1923	HIST.SURV.	1109-0133-0105	04/07/83	1D	C
076847	19-183725	1065 ARMADA DR		PASADENA	P	1926	HIST.SURV.	1109-0133-0128	04/07/83	1D	C
076845	19-183724	1075 ARMADA DR		PASADENA	P	1925	HIST.SURV.	1109-0133-0127	04/07/83	1D	C
076812	19-183707	1080 ARMADA DR		PASADENA	P	1924	HIST.SURV.	1109-0133-0110	04/07/83	1D	C
076843	19-183723	1085 ARMADA DR		PASADENA	P	1922	HIST.SURV.	1109-0133-0126	04/07/83	1D	C
076814	19-183708	1086 ARMADA DR		PASADENA	P	1927	HIST.SURV.	1109-0133-0111	04/07/83	1D	C
076816	19-183709	1090 ARMADA DR		PASADENA	P	1923	HIST.SURV.	1109-0133-0112	04/07/83	1D	C
076841	19-183722	1095 ARMADA DR		PASADENA	P	1922	HIST.SURV.	1109-0133-0125	04/07/83	1D	C
076817	19-183710	1096 ARMADA DR		PASADENA	P	1924	HIST.SURV.	1109-0133-0113	04/07/83	1D	C
076819	19-183711	1100 ARMADA DR		PASADENA	P	1925	HIST.SURV.	1109-0133-0114	04/07/83	1D	C
076839	19-183721	1103 ARMADA DR		PASADENA	P	1922	HIST.SURV.	1109-0133-0124	04/07/83	1D	C
076837	19-183720	1105 ARMADA DR		PASADENA	P	1923	HIST.SURV.	1109-0133-0123	04/07/83	1D	C
076821	19-183712	1106 ARMADA DR		PASADENA	P	1923	HIST.SURV.	1109-0133-0115	04/07/83	1D	C
076823	19-183713	1110 ARMADA DR		PASADENA	P	1922	HIST.SURV.	1109-0133-0116	04/07/83	1D	C
076835	19-183719	1111 ARMADA DR		PASADENA	P	1936	HIST.SURV.	1109-0133-0122	04/07/83	1D	C
076825	19-183714	1116 ARMADA DR		PASADENA	P	1924	HIST.SURV.	1109-0133-0117	04/07/83	1D	C
076833	19-183718	1119 ARMADA DR		PASADENA	P	1924	HIST.SURV.	1109-0133-0121	04/07/83	1D	C
076827	19-183715	1122 ARMADA DR		PASADENA	P	1925	HIST.SURV.	1109-0133-0118	04/07/83	1D	C
076831	19-183717	1125 ARMADA DR		PASADENA	P	1927	HIST.SURV.	1109-0133-0120	04/07/83	1D	C
076829	19-183716	1126 ARMADA DR		PASADENA	P	1924	HIST.SURV.	1109-0133-0119	04/07/83	1D	C
* + 091838	19-184771	ARROYO PARKWAY	OLD PASADENA HISTORIC DISTRICT	PASADENA	P	1891	NAT.REG.	19-0493	01/09/07	7J	
							HIST.RES.	NPS-83001200-9999	09/15/83	1S	ABC
							HIST.SURV.	1109-1627-9999	09/15/83	1S	ABC
							HIST.SURV.	1109-0091-9999	09/15/83	7N	C

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
							HIST.SURV.	1109-2167-9999	06/01/81	2D	ABC
							HIST.RES.	DOE-19-80-0003-9999	04/15/80	2S	ABC
							PROJ.REVW.		04/15/80	2S	ABC
031951	19-181488	0 ARROYO PARKWAY	PARKING STRUCTURE	PASADENA	M	0	HIST.RES.	NPS-80000813-0017	09/04/79	6X	
145874		ARROYO TERRACE	PARK PLACE / ARROYO TERRACE HISTOR	PASADENA	P	1901	HIST.RES.	NPS-04000324-9999	06/29/07	1S	C
							NAT.REG.	19-0447	11/07/03	3S	C
087529	19-184669	368 ARROYO TERRACE	GREENE, CHARLES S., RESIDENCE	PASADENA	P	1901	HIST.RES.	NPS-04000324-0001	06/29/07	1D	C
							NAT.REG.	19-0167	05/26/94	7J	
							HIST.SURV.	1109-1549-0000	02/18/94	3S	BC
166397		368 ARROYO TERRACE	368 ARROYO TERRACE/ GARDEN SHELTER	PASADENA	P	1901	HIST.RES.	NPS-04000324-0003	06/29/07	1D	C
166396		368 ARROYO TERRACE	368 ARROYO TERRACE/ RETAINING WALL	PASADENA	P	1901	HIST.RES.	NPS-04000324-0002	06/29/07	1D	C
166399		370 ARROYO TERRACE	370 ARROYO TERRACE/ RETAINING WALL	PASADENA	P	1903	HIST.RES.	NPS-04000324-0005	06/29/07	1D	C
166398		370 ARROYO TERRACE	370 ARROYO TERRACE	PASADENA	P	1903	HIST.RES.	NPS-04000324-0004	06/29/07	1D	C
166401		400 ARROYO TERRACE	400 ARROYO TERRACE/ RETAINING WALL	PASADENA	P	1903	HIST.RES.	NPS-04000324-0007	06/29/07	1D	C
166400		400 ARROYO TERRACE	400 ARROYO TERRACE	PASADENA	P	1903	HIST.RES.	NPS-04000324-0006	06/29/07	1D	C
166476		400 ARROYO TERRACE	400 ARROYO TERRACE/ GARAGE	PASADENA	P		HIST.RES.	NPS-04000324-0035	06/29/07	6X	
166402		408 ARROYO TERRACE	408 ARROYO TERRACE	PASADENA	P	1906	HIST.RES.	NPS-04000324-0008	06/29/07	1D	C
166403		408 ARROYO TERRACE	408 ARROYO TERRACE/ GARAGE	PASADENA	P	1906	HIST.RES.	NPS-04000324-0009	06/29/07	1D	C
166405		408 ARROYO TERRACE	408 ARROYO TERRACE/ RETAINING WALL	PASADENA	P	1906	HIST.RES.	NPS-04000324-0010	06/29/07	1D	C
166438		424 ARROYO TERRACE	424 ARROYO TERRACE	PASADENA	P	1908	HIST.RES.	NPS-04000324-0024	06/29/07	6X	
166418		440 ARROYO TERRACE	440 ARROYO TERRACE	PASADENA	P	1907	HIST.RES.	NPS-04000324-0011	06/29/07	1D	C
166419		440 ARROYO TERRACE	440 ARROYO TERRACE/ BRICK LANDSCAP	PASADENA	P	1907	HIST.RES.	NPS-04000324-0012	06/29/07	1D	C
166420		440 ARROYO TERRACE	440 ARROYO TERRACE/ GARAGE	PASADENA	P	1907	HIST.RES.	NPS-04000324-0013	06/29/07	1D	C
030412	19-179721	384 ASHTABULA ST	PARTRIDGE HOUSE	PASADENA	P	1889	HIST.SURV.	1109-0025-0000		7R	
030413	19-179722	395 ASHTABULA ST		PASADENA	P	1927	HIST.SURV.	1109-0026-0000		7N	
070825	19-183383	854 ATCHISON ST		PASADENA	P	1905	HIST.SURV.	1109-1078-0043	06/19/91	7R	
070827	19-183384	870 ATCHISON ST		PASADENA	P	1924	HIST.SURV.	1109-1078-0044	06/19/91	7R	
070829	19-183385	874 ATCHISON ST		PASADENA	P	1924	HIST.SURV.	1109-1078-0045	06/19/91	7R	
070831	19-183386	916 ATCHISON ST		PASADENA	P	1939	HIST.SURV.	1109-1078-0046	06/19/91	7R	
070839	19-183391	925 ATCHISON ST		PASADENA	P	1924	HIST.SURV.	1109-1078-0050	06/19/91	7R	
070833	19-183387	930 ATCHISON ST		PASADENA	P	1923	HIST.SURV.	1109-1078-0047	06/19/91	7R	
070837	19-183389	935 ATCHISON ST		PASADENA	P	1923	HIST.SURV.	1109-1078-0049	06/19/91	7R	
070835	19-183388	940 ATCHISON ST		PASADENA	P	1925	HIST.SURV.	1109-1078-0048	06/19/91	7R	
138475		54 AVE 64	KONO KORT	PASADENA	P	1949	HIST.SURV.	1109-1822-0000	10/02/02	3S	C
138476		70 AVE 64	ANNADALE COURT	PASADENA	P	1937	HIST.SURV.	1109-1823-0000	10/02/02	5S2	C
098696	19-185040	1061 AVOCA AVE	CHARLES AND JESSE HARVEY HOUSE	PASADENA	P	1904	HIST.RES.	DOE-19-83-0016-0086	11/20/95	2D2	AC
							PROJ.REVW.	FHWA830201A	03/07/95	7M	
098697	19-185041	1071 AVOCA AVE	ROLAND J. NEWSOM	PASADENA	P	1894	HIST.RES.	DOE-19-83-0016-0087	11/20/95	2D2	AC
							PROJ.REVW.	FHWA830201A	03/07/95	7M	
098698	19-185042	1105 AVOCA AVE	BENJAMIN SPARKS HOUSE	PASADENA	P	1888	HIST.RES.	DOE-19-83-0016-0088	11/20/95	2D2	AC
							PROJ.REVW.	FHWA830201A	03/07/95	7M	
098699	19-185043	1115 AVOCA AVE	THE CHARLES E. ALLEN HOUSE	PASADENA	P	1898	HIST.RES.	DOE-19-83-0016-0089	11/20/95	2D2	AC
							PROJ.REVW.	FHWA830201A	03/07/95	7M	
098701	19-185044	1125 AVOCA AVE	THE WILLIAM W. AND JENNIE B. FORD	PASADENA	S	1893	HIST.RES.	DOE-19-83-0016-0090	11/20/95	2D2	AC
							PROJ.REVW.	FHWA830201A	03/07/95	7M	
098702	19-185045	1135 AVOCA AVE	THE SOPHIA DURANT/ROLAND SISSON HO	PASADENA	P	1890	HIST.RES.	DOE-19-83-0016-0091	11/20/95	2D2	AC
							PROJ.REVW.	FHWA830201A	03/07/95	7M	
098572	19-185003	1171 AVOCA AVE		PASADENA	P	1903	HIST.RES.	DOE-19-83-0016-0039	03/31/83	6Y	AC
							PROJ.REVW.	FHWA830201A	02/28/83	6Y	AC
098573	19-185004	1183 AVOCA AVE		PASADENA	P	1888	HIST.RES.	DOE-19-83-0016-0040	03/31/83	2D2	AC
							PROJ.REVW.	FHWA830201A	02/28/83	2D2	AC
098603	19-185025	1186 AVOCA AVE	HOUSE FOR ALBURN F. PERRY	PASADENA	P	1924	HIST.RES.	DOE-19-83-0016-0064	03/31/83	2D2	AC
							PROJ.REVW.	FHWA830201A	02/28/83	2D2	AC
098604	19-185026	1193 AVOCA AVE		PASADENA	P	1910	HIST.RES.	DOE-19-83-0016-0065	03/31/83	2D2	AC

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
							PROJ.REVW.	FHWA830201A	02/28/83	2D2	AC
098605	19-185027	1194 AVOCA AVE	HOUSE FOR CLIFTON C. MACKAY	PASADENA	P	1924	HIST.RES.	DOE-19-83-0016-0066	03/31/83	2D2	AC
							PROJ.REVW.	FHWA830201A	02/28/83	2D2	AC
098606	19-185028	1201 AVOCA AVE	A. E. KELLY HOUSE	PASADENA	P	1909	HIST.RES.	DOE-19-83-0016-0067	03/31/83	2D2	AC
							PROJ.REVW.	FHWA830201A	02/28/83	2D2	AC
098607	19-185029	1202 AVOCA AVE	HOUSE FOR GEORGE AND ESTRELLE MILL	PASADENA	P	1924	HIST.RES.	DOE-19-83-0016-0068	03/31/83	2D2	AC
							PROJ.REVW.	FHWA830201A	02/28/83	2D2	AC
098608	19-185030	1210 AVOCA AVE	HOUSE FOR WILLIAM MACK	PASADENA	P	1932	HIST.RES.	DOE-19-83-0016-0069	03/31/83	2D2	AC
							PROJ.REVW.	FHWA830201A	02/28/83	2D2	AC
098609	19-185031	1211 AVOCA AVE	MRS. M. WERNER/CHARLES NORBERG HOU	PASADENA	P	1890	HIST.RES.	DOE-19-83-0016-0070	03/31/83	2D2	AC
							PROJ.REVW.	FHWA830201A	02/28/83	2D2	AC
098610	19-185032	1221 AVOCA AVE	M. J. QUIMBY HOUSE	PASADENA	P	1890	HIST.RES.	DOE-19-83-0016-0071	03/31/83	2D2	AC
							PROJ.REVW.	FHWA830201A	02/28/83	2D2	AC
031089	19-180384	1105 AVOCA ST	SPARKS HOUSE	PASADENA	P	1888	HIST.RES.	DOE-19-83-0016-0129	03/21/83	2S2	
							PROJ.REVW.	FHWA830201A	02/28/83	2S2	
							HIST.SURV.	1109-0210-0004		3D	
031088	19-180383	1183 AVOCA ST		PASADENA	P	1887	HIST.RES.	DOE-19-83-016-0128	03/21/83	2S2	
							PROJ.REVW.	FHWA830201A	02/28/83	2S2	
							HIST.SURV.	1109-0210-0003		3D	
031100	19-180395	1201 AVOCA ST		PASADENA	P	1909	HIST.RES.	DOE-19-83-0016-0132	03/21/83	2S2	
							PROJ.REVW.	FHWA830201A	02/28/83	2S2	
							HIST.SURV.	1109-0210-0015		3D	
030699	19-180003	BAKER ALLEY	BAKER ALLEY	PASADENA	M		HIST.SURV.	1109-0091-0168	01/01/83	1D	
							HIST.RES.	DOE-19-80-0003-0168	04/15/80	2D	ABC
031327	19-180987	BARTHE DR		PASADENA	P	1921	HIST.SURV.	1109-0330-9999		7R	
031315	19-181001	242 BARTHE DR		PASADENA	P	1921	HIST.SURV.	1109-0330-0001		7R	
031316	19-181000	250 BARTHE DR		PASADENA	P	1924	HIST.SURV.	1109-0330-0002		7R	
031317	19-180999	260 BARTHE DR		PASADENA	P	1924	HIST.SURV.	1109-0330-0003		7R	
031318	19-180998	268 BARTHE DR		PASADENA	P	1921	HIST.SURV.	1109-0330-0004		7R	
031319	19-180997	276 BARTHE DR		PASADENA	P	1921	HIST.SURV.	1109-0330-0005		7R	
031328	19-180989	285 BARTHE DR		PASADENA	P	1906	HIST.SURV.	1109-0331-0000		7N	
031320	19-180996	290 BARTHE DR		PASADENA	P	1927	HIST.SURV.	1109-0330-0006		7R	
031321	19-180995	306 BARTHE DR		PASADENA	P	1921	HIST.SURV.	1109-0330-0007		7R	
031322	19-180994	322 BARTHE DR		PASADENA	P	1922	HIST.SURV.	1109-0330-0008		7R	
031323	19-180993	330 BARTHE DR		PASADENA	P	1922	HIST.SURV.	1109-0330-0009		7R	
031324	19-180992	340 BARTHE DR		PASADENA	P	1922	HIST.SURV.	1109-0330-0010		7R	
031325	19-180991	347 BARTHE DR		PASADENA	P	1921	HIST.SURV.	1109-0330-0011		7R	
031329	19-180988	367 BARTHE DR		PASADENA	P	1921	HIST.SURV.	1109-0332-0000		5S2	
031326	19-180990	375 BARTHE DR		PASADENA	P	1921	HIST.SURV.	1109-0330-0012		7R	
032780	19-182303	910 BELL ST		PASADENA	P	1921	HIST.SURV.	1109-0774-0001		7R	
032781	19-182304	988 BELL ST	HENRY PEARSON HOME	PASADENA	P	1916	HIST.SURV.	1109-0774-0002		7R	
032782	19-182305	995 BELL ST	JAMES BUTLER HOME	PASADENA	P	1921	HIST.SURV.	1109-0774-0003		7R	
032783	19-182306	1000 BELL ST	C RIETMULDER HOME	PASADENA	P	1920	HIST.SURV.	1109-0774-0004		7R	
032784	19-182307	1005 BELL ST	J J HEINZE HOME	PASADENA	P	1913	HIST.SURV.	1109-0774-0005		7R	
032785	19-182308	1043 BELL ST	F. W. SAUNDERS HOME	PASADENA	P	1923	HIST.SURV.	1109-0774-0006		7R	
032786	19-182309	1067 BELL ST		PASADENA	P	0	HIST.SURV.	1109-0774-0007		7R	
032787	19-182310	1105 BELL ST	FRANK D DEWAR HOME	PASADENA	P	1911	HIST.SURV.	1109-0774-0008		7R	
032788	19-182311	1174 BELL ST		PASADENA	P	1923	HIST.SURV.	1109-0774-0009		7R	
032789	19-182312	1229 BELL ST	J. S. WEINER HOME	PASADENA	P	1923	HIST.SURV.	1109-0774-0010		7R	
030992	19-180287	235 BELLEFONTAINE ST		PASADENA	P	1937	HIST.SURV.	1109-0205-0034		3D	
030970	19-180265	265 BELLEFONTAINE ST	CUDAHY HOUSE	PASADENA	P	1902	HIST.SURV.	1109-0205-0012		3D	
031021	19-180316	268 BELLEFONTAINE ST		PASADENA	P	1894	HIST.SURV.	1109-0205-0063		3D	
031017	19-180312	285 BELLEFONTAINE ST		PASADENA	P	1894	HIST.SURV.	1109-0205-0059		3D	
031022	19-180317	288 BELLEFONTAINE ST		PASADENA	P	1912	HIST.SURV.	1109-0205-0064		3D	
031018	19-180313	299 BELLEFONTAINE ST		PASADENA	P	1912	HIST.SURV.	1109-0205-0060		3D	
031023	19-180318	300 BELLEFONTAINE ST		PASADENA	P	1913	HIST.SURV.	1109-0205-0065		3D	

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
030971	19-180266	310 BELLEFONTAINE ST	C. W. HOLLISTER HOUSE	PASADENA	P	1899	HIST.SURV.	1109-0205-0013		3D	
031019	19-180314	315 BELLEFONTAINE ST		PASADENA	P	1933	HIST.SURV.	1109-0205-0061		3D	
030981	19-180276	324 BELLEFONTAINE ST		PASADENA	P	1904	HIST.SURV.	1109-0205-0023		3D	
030965	19-180260	325 BELLEFONTAINE ST	ROGERS HOUSE	PASADENA	P	1900	HIST.SURV.	1109-0205-0007		3D	
031024	19-180319	344 BELLEFONTAINE ST		PASADENA	P	1901	HIST.SURV.	1109-0205-0066		3D	
031020	19-180315	345 BELLEFONTAINE ST		PASADENA	P	1895	HIST.SURV.	1109-0205-0062		3D	
142823		460 BELLEFONTAINE ST	WARE, HENRY A., HOUSE	PASADENA	P	1913	HIST.RES.	NPS-04000015-0000	06/15/04	1S	C
							NAT.REG.	19-0429	08/28/03	3S	C
150669		460 BELLEFONTAINE ST	WARE, HENRY A., GARAGE	PASADENA	P	1917	HIST.RES.	NPS-04000015-0001	06/15/04	1S	C
150670		460 BELLEFONTAINE ST	WARE, HENRY A., CHILDREN'S PLAYHOU	PASADENA	P		HIST.RES.	NPS-04000015-0002	06/15/04	6X	
112971	19-185121	574 BELLEFONTAINE ST	HOUSE	PASADENA	P	1911	HIST.RES.	NPS-98000958-9999	08/06/98	1S	C
							NAT.REG.	19-0255	08/06/98	3S	C
116844	19-185141	574 BELLEFONTAINE ST	GARAGE	PASADENA	P	1939	HIST.RES.	NPS-98000958-0003	08/06/98	6X	
							NAT.REG.	19-0255	08/06/98	6X	
116843	19-185140	574 BELLEFONTAINE ST	GARDEN COTTAGE	PASADENA	P	1939	HIST.RES.	NPS-98000958-0002	08/06/98	6X	
							NAT.REG.	19-0255	08/06/98	6X	
116842	19-185139	574 BELLEFONTAINE ST	DWELLING	PASADENA	P	1911	HIST.RES.	NPS-98000958-0001	08/06/98	1D	C
							NAT.REG.	19-0255	08/06/98	1D	C
031075	19-180370	BELLEVUE DR		PASADENA	P	1926	HIST.SURV.	1109-0208-0043		5D2	
099064	19-185081	BLOCK STATE ST		PASADENA			HIST.RES.	DOE-19-83-0016-0123	11/20/95	6Y	
							PROJ.REVW.	FHWA830201A	03/07/95	7M	
031185	19-180478	BRAINARD ALLEY	BRAINARD ALLEY	PASADENA	M		HIST.SURV.	1109-0258-0027		3D	
030629	19-179934	40 BRALEY CT		PASADENA	P	1890	HIST.SURV.	1109-0091-0096	01/01/83	1D	
							HIST.SURV.	1109-2167-0089	06/01/81	2D	ABC
							HIST.RES.	DOE-19-80-0003-0096	04/15/80	2D	ABC
098703	19-185046	1191 BROOKMERE RD	HOUSE FOR H.H. COCHRANE	PASADENA	P	1938	HIST.RES.	DOE-19-83-0016-0092	11/20/95	2D2	AC
							PROJ.REVW.	FHWA830201A	03/07/95	2D2	AC
099074	19-185083	1200 BROOKMERE RD	WILLIAM K. CORLETT ROAD	PASADENA	P	1939	HIST.RES.	DOE-19-83-0016-0124	11/20/95	6Y	
							PROJ.REVW.	FHWA830201A	03/07/95	7M	
099077	19-185084	1240 BROOKMERE RD	HOUSE FOR MISS KATHERINE OLDHAM	PASADENA	P	1940	HIST.RES.	DOE-19-83-0016-0125	11/20/95	6Y	
							PROJ.REVW.	FHWA830201A	03/07/95	7M	
099079	19-185085	1250 BROOKMERE RD	ELIZABETH CONSTANCE RESIDENCE	PASADENA	P	1940	HIST.RES.	DOE-19-83-0016-0126	11/20/95	6Y	
							PROJ.REVW.	FHWA830201A	03/07/95	7M	
099082	19-185086	1251 BROOKMERE RD	P. W. BROOKS HOUSE	PASADENA	P	1940	HIST.RES.	DOE-19-83-0016-0127	11/20/95	6Y	
							PROJ.REVW.	FHWA830201A	03/07/95	7M	
031340	19-180986	BROOKS AVE		PASADENA	P	1921	HIST.SURV.	1109-0333-9999		7R	
031334	19-180981	795 BROOKS AVE		PASADENA	P	1925	HIST.SURV.	1109-0333-0005		7R	
031330	19-180985	796 BROOKS AVE		PASADENA	P	1923	HIST.SURV.	1109-0333-0001		7R	
031335	19-180980	803 BROOKS AVE		PASADENA	P	1922	HIST.SURV.	1109-0333-0006		7R	
031331	19-180984	806 BROOKS AVE		PASADENA	P	1925	HIST.SURV.	1109-0333-0002		7R	
031336	19-180979	811 BROOKS AVE		PASADENA	P	1922	HIST.SURV.	1109-0333-0007		7R	
031332	19-180983	814 BROOKS AVE		PASADENA	P	1921	HIST.SURV.	1109-0333-0003		7R	
031337	19-180978	817 BROOKS AVE		PASADENA	P	1921	HIST.SURV.	1109-0333-0008		7R	
031333	19-180982	824 BROOKS AVE		PASADENA	P	1920	HIST.SURV.	1109-0333-0004		7R	
031338	19-180977	825 BROOKS AVE		PASADENA	P	1921	HIST.SURV.	1109-0333-0009		7R	
082756	19-183751	830 BROOKS AVE	KOSY KNOOK COURT #5	PASADENA	P	1922	HIST.RES.	NPS-94001322-0005	11/15/94	1D	C
082755	19-183750	830 BROOKS AVE	KOSY KNOOK COURT #4	PASADENA	P	1922	HIST.RES.	NPS-94001322-0004	11/15/94	1D	C
082754	19-183749	830 BROOKS AVE	KOSY KNOOK COURT #3	PASADENA	P	1922	HIST.RES.	NPS-94001322-0003	11/15/94	1D	C
082753	19-183748	830 BROOKS AVE	KOSY KNOOK COURT #2	PASADENA	P	1922	HIST.RES.	NPS-94001322-0002	11/15/94	1D	C
082752	19-183747	830 BROOKS AVE	KOSY KNOOK COURT #1	PASADENA	P	1922	HIST.RES.	NPS-94001322-0001	11/15/94	1D	C
082751	19-183746	830 BROOKS AVE	KOSY KNOOK COURT	PASADENA	P	1922	NAT.REG.	19-0147	11/15/94	1S	C
							HIST.RES.	NPS-94001322-9999	11/15/94	1S	C
							HIST.SURV.	1109-0334-0000			
031339	19-180976	835 BROOKS AVE		PASADENA	P	1923	HIST.SURV.	1109-0333-0010		7R	

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031095	19-180390	95 COLUMBIA ST	TEVENTING HOUSE	PASADENA	P	1900	HIST.RES.	DOE-19-83-0016-0072	03/31/83	2D2	AC
							PROJ.REVW.	FHWA830201A	02/28/83	2D2	AC
							HIST.SURV.	1109-0210-0010		3D	
031096	19-180391	105 COLUMBIA ST	F THUM HOUSE	PASADENA	P	1900	HIST.RES.	DOE-19-83-0016-0073	03/31/83	2D2	AC
							PROJ.REVW.	FHWA830201A	02/28/83	2D2	AC
							HIST.SURV.	1109-0210-0011		3D	
031097	19-180392	123 COLUMBIA ST	THUM HOUSE	PASADENA	P	1899	HIST.RES.	DOE-19-83-0016-0074	03/31/83	2D2	AC
							PROJ.REVW.	FHWA830201A	02/28/83	2D2	AC
							HIST.SURV.	1109-0210-0012		3D	
098611	19-185033	145 COLUMBIA ST	C. B. AND W. ROWLEY HOUSE	PASADENA	P	1923	HIST.RES.	DOE-19-83-0016-0075	03/31/83	2D2	AC
							PROJ.REVW.	FHWA830201A	02/28/83	2D2	AC
031103	19-180398	161 COLUMBIA ST	ROSS WERNER HOUSE	PASADENA	S	1911	HIST.RES.	DOE-19-83-0016-0076	03/31/83	2D2	AC
							PROJ.REVW.	FHWA830201A	02/28/83	2D2	AC
							HIST.SURV.	1109-0210-0018		3D	
098612	19-185034	181 COLUMBIA ST	J.W. MEEHAN HOUSE	PASADENA	S	1938	HIST.RES.	DOE-19-83-0016-0077	11/20/95	2D2	AC
							PROJ.REVW.	FHWA830201A	02/28/83	6Y	AC
098713	19-185047	203 COLUMBIA ST	HENRY M. THOMPSON HOUSE	PASADENA	P	1908	HIST.RES.	DOE-19-83-0016-0093	11/20/95	2D2	AC
							PROJ.REVW.	FHWA830201A	03/07/95	7M	
031098	19-180393	205 COLUMBIA ST		PASADENA	P	1908	HIST.RES.	DOE-19-83-0016-0078	03/31/83	2D2	AC
							PROJ.REVW.	FHWA830201A	02/28/83	2D2	AC
							HIST.SURV.	1109-0210-0013		3D	
098826	19-185051	233 COLUMBIA ST	E. H. ROSE HOUSE	PASADENA	P	1925	HIST.RES.	DOE-19-83-0016-0095	11/20/95	2D2	
							PROJ.REVW.	FWWA830201A	03/07/95	7M	
098830	19-185052	269 COLUMBIA ST	SPECULATION HOUSE FOR PERCY W. BRO	PASADENA	P	1938	HIST.RES.	DOE-19-83-0016-0096	11/20/95	2D2	
							PROJ.REVW.	FHWA830201A	03/07/95	7M	
098840	19-185053	1131 COLUMBIA ST	FRANK P. O'CONNOR HOUSE	PASADENA	S	1910	HIST.RES.	DOE-19-83-0016-0097	11/20/95	2D2	
							PROJ.REVW.	FHWA830201A	03/07/95	7M	
070841	19-183392	530 CONCORDIA CT		PASADENA	P	1915	HIST.SURV.	1109-1087-0004	06/19/91	6X	
070792	19-183364	530 CONCORDIA CT	530-63 CONCORDIA COURT GROUPING	PASADENA	P	1903	HIST.SURV.	1109-1087-9999	06/19/91	6X	
070838	19-183390	532 CONCORDIA CT		PASADENA	P	1906	HIST.SURV.	1109-1087-0003	06/19/91	6X	
070796	19-183368	534 CONCORDIA CT		PASADENA	P	1903	HIST.SURV.	1109-1087-0002	06/19/91	6X	
070794	19-183366	548 CONCORDIA CT		PASADENA	P	1911	HIST.SURV.	1109-1087-0001	06/19/91	6X	
070843	19-183394	555 CONCORDIA CT		PASADENA	P	1910	HIST.SURV.	1109-1087-0005	06/19/91	6X	
070845	19-183396	559 CONCORDIA CT		PASADENA	P	1910	HIST.SURV.	1109-1087-0006	06/19/91	6X	
070847	19-183397	563 CONCORDIA CT		PASADENA	P	1919	HIST.SURV.	1109-1087-0007	06/19/91	6X	
031006	19-180301	285 CONGRESS PL		PASADENA	P	1904	HIST.SURV.	1109-0205-0048		3D	
031008	19-180303	288 CONGRESS PL		PASADENA	P	1910	HIST.SURV.	1109-0205-0050		3D	
031009	19-180304	300 CONGRESS PL		PASADENA	P	1902	HIST.SURV.	1109-0205-0051		3D	
031007	19-180302	301 CONGRESS PL		PASADENA	P	1903	HIST.SURV.	1109-0205-0049		3D	
030985	19-180280	306 CONGRESS PL		PASADENA	P	1915	HIST.SURV.	1109-0205-0027		3D	
031010	19-180305	310 CONGRESS PL		PASADENA	P	1911	HIST.SURV.	1109-0205-0052		3D	
030959	19-180254	311 CONGRESS PL		PASADENA	P	1881	HIST.SURV.	1109-0205-0001		3D	
031011	19-180306	326 CONGRESS PL		PASADENA	P	1914	HIST.SURV.	1109-0205-0053		3D	
031012	19-180307	340 CONGRESS PL		PASADENA	P	1911	HIST.SURV.	1109-0205-0054		3D	
030960	19-180255	348 CONGRESS PL		PASADENA	P	1891	HIST.SURV.	1109-0205-0002		3D	
030961	19-180256	351 CONGRESS PL		PASADENA	P	1895	HIST.SURV.	1109-0205-0003		3D	
030969	19-180264	360 CONGRESS PL	UNA B HOPKINS COTTAGE	PASADENA	P	1906	HIST.SURV.	1109-0205-0011		3D	
033372	19-182894	1115 CONSTANCE ST	BROWN HOUSE	PASADENA	P	1926	HIST.SURV.	1109-0838-0000		7R	
033373	19-182895	1121 CONSTANCE ST	BORSOOK HOUSE	PASADENA	P	1923	HIST.SURV.	1109-0839-0000		7R	
033374	19-182896	1129 CONSTANCE ST	BENNETT HOUSE	PASADENA	P	1923	HIST.SURV.	1109-0840-0000		7R	
033375	19-182897	1135 CONSTANCE ST	WHITE HOUSE	PASADENA	P	1921	HIST.SURV.	1109-0841-0000		7R	
033376	19-182898	1147 CONSTANCE ST	TAYLOR HOUSE	PASADENA	P	1924	HIST.SURV.	1109-0842-0000		7R	
139908		1860 CORSON ST		PASADENA		1924	HIST.SURV.	1109-2157-0000		6L	
139909		1868 CORSON ST		PASADENA	P	1924	HIST.SURV.	1109-2158-0000		7R	
030925	19-180220	CYPRESS AVE	CYPRESS AVENUE GROUPING	PASADENA	P	1892	HIST.SURV.	1109-0178-9999		7N	
031421	19-180912	CYPRESS AVE		PASADENA	P	1886	HIST.SURV.	1109-0343-9999		7R	

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031405	19-180910	670 CYPRESS AVE		PASADENA	P	1925	HIST.SURV.	1109-0343-0002		7R	
031422	19-181067	675 CYPRESS AVE		PASADENA	P	1887	HIST.SURV.	1109-0344-0000		5S2	
031406	19-180909	680 CYPRESS AVE		PASADENA	P	1910	HIST.SURV.	1109-0343-0003		7R	
031418	19-180897	687 CYPRESS AVE		PASADENA	P	1914	HIST.SURV.	1109-0343-0015		7R	
031407	19-180908	688 CYPRESS AVE		PASADENA	P	1911	HIST.SURV.	1109-0343-0004		7R	
031419	19-180896	691 CYPRESS AVE		PASADENA	P	1903	HIST.SURV.	1109-0343-0016		7R	
031408	19-180907	696 CYPRESS AVE		PASADENA	P	1900	HIST.SURV.	1109-0343-0005		7R	
031409	19-180906	708 CYPRESS AVE		PASADENA	P	1895	HIST.SURV.	1109-0343-0006		7R	
031410	19-180905	736 CYPRESS AVE		PASADENA	P	1926	HIST.SURV.	1109-0343-0007		7R	
031420	19-181068	739 CYPRESS AVE		PASADENA	P	1887	HIST.SURV.	1109-0343-0017		7R	
031411	19-180904	742 CYPRESS AVE		PASADENA	P	1908	HIST.SURV.	1109-0343-0008		7R	
031412	19-180903	750 CYPRESS AVE		PASADENA	P	1910	HIST.SURV.	1109-0343-0009		7R	
031413	19-180902	760 CYPRESS AVE		PASADENA	P	1887	HIST.SURV.	1109-0343-0010		7R	
031414	19-180901	784 CYPRESS AVE		PASADENA	P	1903	HIST.SURV.	1109-0343-0011		7R	
033379	19-182901	294 DEL MAR BLVD	WILSON COURT	PASADENA	P	1923	HIST.SURV.	1109-0845-0000		7R	
033377	19-182899	1052 DEL MAR BLVD		PASADENA	P	1955	HIST.SURV.	1109-0843-0000		7R	
033378	19-182900	1066 DEL MAR BLVD		PASADENA	P	1927	HIST.SURV.	1109-0844-0000		7R	
033380	19-182902	1114 DEL MAR BLVD	FORSTER HOUSE	PASADENA	P	1924	HIST.SURV.	1109-0846-0000		7R	
033381	19-182903	1124 DEL MAR BLVD		PASADENA	P	1952	HIST.SURV.	1109-0847-0000		7R	
033382	19-182904	1152 DEL MAR BLVD	ANDREWS HOUSE	PASADENA	P	1889	HIST.SURV.	1109-0848-0000		7R	
033383	19-182905	1170 DEL MAR BLVD		PASADENA	P	1960	HIST.SURV.	1109-0849-0000		7R	
139720		314 DEL REY AVE	PAPAIOANU HOUSE	PASADENA	P	1925	HIST.SURV.	1109-2048-0000		5S1	
138486		1235 DEL REY AVE		PASADENA	P	1951	HIST.SURV.	1109-1844-0000	10/02/02	5S2	C
138487		1263 DEL REY AVE		PASADENA	P	1952	HIST.SURV.	1109-1845-0000	10/02/02	5S2	C
138488		1275 DEL REY AVE		PASADENA	P	1953	HIST.SURV.	1109-1846-0000	10/02/02	5S2	C
138489		1285 DEL REY AVE		PASADENA	P	1953	HIST.SURV.	1109-1847-0000	10/02/02	5S2	C
031681	19-181207	DOUGLAS ST	DOUGLAS ST	PASADENA	P	1923	HIST.SURV.	1109-0382-9999		7R	
031669	19-181195	DOUGLAS ST	DOUGLAS ST	PASADENA	P	1913	HIST.SURV.	1109-0381-9999		7R	
031689	19-181215	DOUGLAS ST	DOUGLAS ST	PASADENA	P	1922	HIST.SURV.	1109-0383-9999		7R	
031663	19-181189	485 DOUGLAS ST		PASADENA	P	1913	HIST.SURV.	1109-0381-0001		7R	
031664	19-181190	495 DOUGLAS ST		PASADENA	P	1912	HIST.SURV.	1109-0381-0002		7R	
031665	19-181191	501 DOUGLAS ST		PASADENA	P	1913	HIST.SURV.	1109-0381-0003		7R	
031666	19-181192	507 DOUGLAS ST		PASADENA	P	1914	HIST.SURV.	1109-0381-0004		7R	
031670	19-181196	516 DOUGLAS ST		PASADENA	P	1923	HIST.SURV.	1109-0382-0001		7R	
031667	19-181193	517 DOUGLAS ST		PASADENA	P	1916	HIST.SURV.	1109-0381-0005		7R	
031668	19-181194	527 DOUGLAS ST		PASADENA	P	1914	HIST.SURV.	1109-0381-0006		7R	
031671	19-181197	537 DOUGLAS ST		PASADENA	P	1926	HIST.SURV.	1109-0382-0002		7R	
031672	19-181198	538 DOUGLAS ST		PASADENA	P	1924	HIST.SURV.	1109-0382-0003		7R	
031673	19-181199	546 DOUGLAS ST		PASADENA	P	1923	HIST.SURV.	1109-0382-0004		7R	
031674	19-181200	556 DOUGLAS ST		PASADENA	P	1924	HIST.SURV.	1109-0382-0005		7R	
031675	19-181201	566 DOUGLAS ST	PETER ERICKSON HOUSE	PASADENA	P	1924	HIST.SURV.	1109-0382-0006		7R	
031676	19-181202	575 DOUGLAS ST		PASADENA	P	1913	HIST.SURV.	1109-0382-0007		7R	
031677	19-181203	585 DOUGLAS ST		PASADENA	P	1922	HIST.SURV.	1109-0382-0008		7R	
031678	19-181204	596 DOUGLAS ST		PASADENA	P	1926	HIST.SURV.	1109-0382-0009		7R	
031682	19-181208	601 DOUGLAS ST		PASADENA	P	1922	HIST.SURV.	1109-0383-0001		7R	
031679	19-181205	604 DOUGLAS ST		PASADENA	P	1926	HIST.SURV.	1109-0382-0010		7R	
031683	19-181209	607 DOUGLAS ST		PASADENA	P	1922	HIST.SURV.	1109-0383-0002		7R	
031680	19-181206	610 DOUGLAS ST		PASADENA	P	1923	HIST.SURV.	1109-0382-0011		7R	
031684	19-181210	615 DOUGLAS ST		PASADENA	P	1922	HIST.SURV.	1109-0383-0003		7R	
031685	19-181211	622 DOUGLAS ST		PASADENA	P	1924	HIST.SURV.	1109-0383-0004		7R	
031686	19-181212	623 DOUGLAS ST		PASADENA	P	1923	HIST.SURV.	1109-0383-0005		7R	
031687	19-181213	629 DOUGLAS ST		PASADENA	P	1923	HIST.SURV.	1109-0383-0006		7R	
031688	19-181214	644 DOUGLAS ST		PASADENA	P	1924	HIST.SURV.	1109-0383-0007		7R	
032252	19-181778	E BELLEVUE DR	EAST BELLEVUE DRIVE GROUPING	PASADENA	P	1905	HIST.SURV.	1109-0404-9999		7R	
032247	19-181773	248 E BELLEVUE DR	WILLIAM AND JESSIE RUSSELL HOME	PASADENA	P	1907	HIST.SURV.	1109-0404-0001		7R	
032248	19-181774	256 E BELLEVUE DR	WILLIAM KELLEY HOUSE/COUGHLIN HOME	PASADENA	P	1908	HIST.SURV.	1109-0404-0002		7R	

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032249	19-181775	264 E BELLEVUE DR	CLAIR AND MARJORIE LAWSON HOME	PASADENA	P	1923	HIST.SURV.	1109-0404-0003		7R	
032250	19-181776	274 E BELLEVUE DR	WILLIAM HEPLER HOME	PASADENA	P	1905	HIST.SURV.	1109-0404-0004		7R	
032251	19-181777	277 E BELLEVUE DR	DR A J AND MARTHA RICHARDSON HOME	PASADENA	P	1912	HIST.SURV.	1109-0404-0005		7R	
086595	19-184052	675 E BELVIDERE ST	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1924	HIST.SURV.	1109-1191-0001	07/07/92	6L	C
086596	19-184053	680 E BELVIDERE ST	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1926	HIST.SURV.	1109-1191-0002	07/07/92	6L	
086597	19-184054	685 E BELVIDERE ST	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1931	HIST.SURV.	1109-1191-0003	07/07/92	6L	
086598	19-184055	695 E BELVIDERE ST	PALM TERRACE REVIVAL TERRACE	PASADENA	P	1935	HIST.SURV.	1109-1191-0004	07/07/92	6L	
086599	19-184056	704 E BELVIDERE ST	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1924	HIST.SURV.	1109-1191-0005	07/07/92	6L	
086600	19-184057	705 E BELVIDERE ST	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1931	HIST.SURV.	1109-1191-0006	07/07/92	6L	
086601	19-184058	709 E BELVIDERE ST		PASADENA	P	1938	HIST.SURV.	1109-1191-0007	07/07/92	6Z	
086602	19-184059	711 E BELVIDERE ST		PASADENA	U		HIST.SURV.	1109-1191-0008	07/07/92	6Z	
086603	19-184060	737 E BELVIDERE ST	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1930	HIST.SURV.	1109-1191-0009	07/07/92	6L	
086604	19-184061	742 E BELVIDERE ST	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1923	HIST.SURV.	1109-1191-0010	07/07/92	6L	
086605	19-184062	747 E BELVIDERE ST	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1922	HIST.SURV.	1109-1191-0011	07/07/92	6L	
086606	19-184063	752 E BELVIDERE ST	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1923	HIST.SURV.	1109-1191-0012	07/07/92	6L	
086607	19-184064	757 E BELVIDERE ST	REVIVAL PALM TERRACE	PASADENA	P	1926	HIST.SURV.	1109-1191-0013	07/07/92	6L	
086608	19-184065	758 E BELVIDERE ST	REVIVAL PALM TERRACE	PASADENA	P	1923	HIST.SURV.	1109-1191-0014	07/07/92	6L	
086609	19-184066	764 E BELVIDERE ST	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1921	HIST.SURV.	1109-1191-0015	07/07/92	6L	
086610	19-184067	765 E BELVIDERE ST	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1925	HIST.SURV.	1109-1191-0016	07/07/92	6L	
086611	19-184068	773 E BELVIDERE ST	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1925	HIST.SURV.	1109-1191-0017	07/07/92	6L	
086612	19-184069	779 E BELVIDERE ST	REVIVAL PALM TERRACE	PASADENA	P	1924	HIST.SURV.	1109-1191-0018	07/07/92	6L	
086613	19-184070	787 E BELVIDERE ST	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1924	HIST.SURV.	1109-1191-0019	07/07/92	6L	
086614	19-184071	807 E BELVIDERE ST	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1926	HIST.SURV.	1109-1191-0020	07/07/92	6L	
086615	19-184072	815 E BELVIDERE ST	REVIVAL PALM TERRACE	PASADENA	P	1922	HIST.SURV.	1109-1191-0021	07/07/92	6L	
086616	19-184073	825 E BELVIDERE ST	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1924	HIST.SURV.	1109-1191-0022	07/07/92	6L	
086617	19-184074	830 E BELVIDERE ST		PASADENA	U	1948	HIST.SURV.	1109-1191-0023	07/07/92	6Z	
086618	19-184075	831 E BELVIDERE ST	REVIVAL PALM TERRACE	PASADENA	P	1928	HIST.SURV.	1109-1191-0024	07/07/92	6L	
086619	19-184076	841 E BELVIDERE ST	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1918	HIST.SURV.	1109-1191-0025	07/07/92	6L	
086620	19-184077	847 E BELVIDERE ST	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1924	HIST.SURV.	1109-1191-0026	07/07/92	6L	
083812	19-183939	3576 E BRANDON ST		PASADENA	U	1929	PROJ.REVW.	HUD910909O	08/24/93	6Y	
032305	19-181830	E CALIFORNIA BLVD		PASADENA	P	1914	HIST.SURV.	1109-0423-9999		7R	
032271	19-181796	E CALIFORNIA BLVD		PASADENA	P	1914	HIST.SURV.	1109-0416-9999		7R	
032261	19-181786	E CALIFORNIA BLVD	SPANISH COLONIAL ARARTMENTS	PASADENA	P	1922	HIST.SURV.	1109-0410-9999		7R	
032285	19-181810	E CALIFORNIA BLVD		PASADENA	P	1926	HIST.SURV.	1109-0417-9999		7R	
139736		E CALIFORNIA BLVD	RAYMOND FLORIST DISTRICT	PASADENA	P		HIST.SURV.	1109-2059-9999		3S	
070772	19-183352	11 E CALIFORNIA BLVD	SANDERS HOUSE OF LIGHTS	PASADENA	P	1925	HIST.SURV.	1109-1084-0000	06/19/91	6X	
070770	19-183350	40 E CALIFORNIA BLVD	DY-DEE SERVICE	PASADENA	P	1929	HIST.SURV.	1109-2058-0000		6L	
							HIST.SURV.	1109-1083-0000	06/19/91	6X	
070768	19-183348	60 E CALIFORNIA BLVD	RAYMOND FLORIST	PASADENA	P	1898	HIST.SURV.	1109-2059-0001		3D	
							HIST.SURV.	1109-1082-0000	06/19/91	5S2	
070766	19-183346	62 E CALIFORNIA BLVD	RAYMOND FLOWERS	PASADENA	P	1933	HIST.SURV.	1109-2059-0002		3D	
							HIST.SURV.	1109-1081-0000	06/19/91	5S2	
070762	19-183343	161 E CALIFORNIA BLVD	GEORGE S HUNT STUDIO AND SHOPS	PASADENA	P	1925	HIST.SURV.	1109-1079-0000	06/19/91	3S	
070764	19-183344	180 E CALIFORNIA BLVD	SILVER BIRCHES/NEFF-RUPPEL BUILDIN	PASADENA	P	1929	HIST.SURV.	1109-1080-0000	06/19/91	3S	
032254	19-181779	275 E CALIFORNIA BLVD	EUGENE BITMAN HOUSE	PASADENA	P	1906	HIST.SURV.	1109-0405-0405		7R	
							HIST.SURV.	1109-0405-0000		7R	
032255	19-181780	305 E CALIFORNIA BLVD	HALEKULANI APARTMENTS	PASADENA	P	1952	HIST.SURV.	1109-1824-0000	10/02/02	3S	C
							HIST.SURV.	1109-0406-0000		7R	
138477		320 E CALIFORNIA BLVD		PASADENA	P	1940	HIST.SURV.	1109-1825-0000	10/02/02	5S2	C
032256	19-181781	337 E CALIFORNIA BLVD	HARVEY MAGEE HOME	PASADENA	P	1903	HIST.SURV.	1109-0407-0000		7R	
032257	19-181782	370 E CALIFORNIA BLVD	CARA LEE UPTON HOME	PASADENA	P	1922	HIST.SURV.	1109-0408-0000		7R	
032258	19-181783	441 E CALIFORNIA BLVD	MINNIE GREY HOME	PASADENA	P	1922	HIST.SURV.	1109-0409-0000		7R	
032291	19-181816	451 E CALIFORNIA BLVD		PASADENA	P	1924	HIST.SURV.	1109-1826-0000	10/02/02	3S	C
							HIST.SURV.	1109-0423-0001		7R	
032292	19-181817	461 E CALIFORNIA BLVD		PASADENA	P	1924	HIST.SURV.	1109-0423-0002		7R	

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073601	19-183549	29 FAIR OAKS AVE	29-33 FAIR OAKS AVE.	PASADENA	P	0	TAX.CERT.	537.9-19-0172	04/24/85	2D3	
139765		744 FAIRMONT AVE	WOMEN'S HOSPITAL	PASADENA		1929	HIST.SURV.	1109-2076-0000		7N1	
087135	19-184442	FAY PL	FAY PLACE	PASADENA	P	1925	HIST.SURV.	1109-1334-9999	01/01/91	3S	
087136	19-184443	1285 FAY PL		PASADENA	P	1925	HIST.SURV.	1109-1334-0001	01/01/91	3D	
087137	19-184444	1290 FAY PL		PASADENA	P	1925	HIST.SURV.	1109-1334-0002	01/01/91	3D	
087138	19-184445	1291 FAY PL		PASADENA	P	1925	HIST.SURV.	1109-1334-0003	01/01/91	3D	
087139	19-184446	1300 FAY PL		PASADENA	P	1925	HIST.SURV.	1109-1334-0004	01/01/91	3D	
087140	19-184447	1301 FAY PL		PASADENA	P	1925	HIST.SURV.	1109-1334-0005	01/01/91	3D	
087141	19-184448	1306 FAY PL		PASADENA	P	1925	HIST.SURV.	1109-1334-0006	01/01/91	3D	
087142	19-184449	1307 FAY PL		PASADENA	P	1925	HIST.SURV.	1109-1334-0007	01/01/91	3D	
087143	19-184450	1312 FAY PL		PASADENA	P	1925	HIST.SURV.	1109-1334-0008	01/01/91	3D	
087144	19-184451	1315 FAY PL		PASADENA	P	1925	HIST.SURV.	1109-1334-0009	01/01/91	3D	
087145	19-184452	1320 FAY PL		PASADENA	P	1925	HIST.SURV.	1109-1334-0010	01/01/91	3D	
087146	19-184453	1321 FAY PL		PASADENA	P	1925	HIST.SURV.	1109-1334-0011	01/01/91	3D	
087147	19-184454	1328 FAY PL		PASADENA	P	1925	HIST.SURV.	1109-1334-0012	01/01/91	3D	
087148	19-184455	1329 FAY PL		PASADENA	P	1925	HIST.SURV.	1109-1334-0013	01/01/91	3D	
031269	19-180562	446 FORD PL	ERICKSON APARTMENTS	PASADENA	P	1913	HIST.SURV.	1109-0301-0014		3D	
031270	19-180563	460 FORD PL	CLARA L. HATCH HOUSE	PASADENA	P	1904	HIST.SURV.	1109-0301-0015		3D	
031271	19-180564	465 FORD PL	CLARK & MARY COOK HOUSE, MARRIAGE	PASADENA	P	1916	HIST.SURV.	1109-0301-0016		3D	
031268	19-180561	481 FORD PL	J HERBERT HALL APARTMENTS, NOBLE M	PASADENA	P	1905	HIST.SURV.	1109-0301-0013		3D	
095194	19-184788	319 FREMONT AVE		PASADENA		1935	PROJ.REVW.	HUD940310G	09/19/94	6Y	
076629	19-183614	535 FREMONT DR		PASADENA	P	1919	HIST.SURV.	1109-0133-0001	04/07/83	1D	C
076630	19-183615	541 FREMONT DR		PASADENA	P	1956	HIST.SURV.	1109-0133-0002	04/07/81	6Y	
083703	19-183928	600 FREMONT DR		PASADENA	U	1926	PROJ.REVW.	HUD900930C	09/30/90	6Y	
075183	19-183600	GARFIELD AVE	PASADENA CIVIC CENTER DISTRICT	PASADENA	PFC	1923	HIST.RES.	NPS-80000813-9999	09/04/79	1S	ABC
031094	19-180389	80 GRACE TERRACE	STANTON HOUSE	PASADENA	P	1891	HIST.RES.	DOE-19-83-0016-0130	03/21/83	2S2	
							PROJ.REVW.	FHWA830201A	02/28/83	2S2	
							HIST.SURV.	1109-0210-0009		3D	
064484	19-183002	0 GRAND VIEW ST		PASADENA	P	1922	HIST.SURV.	1109-0926-9999	06/03/92	6Z	
064485	19-183003	168 GRAND VIEW ST		PASADENA	P	1922	HIST.SURV.	1109-0326-0001	06/04/91	7R	
064486	19-183004	168 GRAND VIEW ST		PASADENA	P	1922	HIST.SURV.	1109-0926-0001	06/03/92	6Z	
064488	19-183006	176 GRAND VIEW ST		PASADENA	P	1922	HIST.SURV.	1109-0926-0002	06/03/92	6Z	
064487	19-183005	184 GRAND VIEW ST		PASADENA	P	1922	HIST.SURV.	1109-0926-0003	06/03/92	6Z	
064489	19-183007	195 GRAND VIEW ST	PASADENA COLLEGE CHIROPRACTIC/WASH	PASADENA	P	1923	HIST.SURV.	1109-0927-9999	06/04/91	7R	
064490	19-183008	225 GRAND VIEW ST	JOHN S. PASHGIAN HOUSE	PASADENA	P	1922	HIST.SURV.	1109-0928-0000	06/03/92	7N1	
064491	19-183009	290 GRAND VIEW ST		PASADENA	P	1907	HIST.SURV.	1109-0929-0000	06/03/92	5S1	
064492	19-183010	293 GRAND VIEW ST		PASADENA	P	1933	HIST.SURV.	1109-0930-0000	06/03/92	6Z	
067447	19-183197	1030 GREEN ST	NAVAL RESEARCH DETACHMENT BUILDING	PASADENA	U	0	PROJ.REVW.	GSA900612A	06/12/90	7J	
139861		358 GROVE ST		PASADENA		1929	HIST.SURV.	1109-2081-0000		6L	
139864		363 GROVE ST	KATE FOWLER ESTATE LOWER GARDEN	PASADENA		1915	HIST.SURV.	1109-2084-0000		5S1	
139862		363 GROVE ST		PASADENA		1895	HIST.SURV.	1109-2082-0000		7R	
139863		380 GROVE ST		PASADENA		1927	HIST.SURV.	1109-2083-0000		5S1	
087757	19-184726	174 HARKNESS AVE	PASADENA FOURSQUARE GOSPEL CHURCH	PASADENA	P	1932	HIST.SURV.	1109-1581-0000	07/01/90	7R	
085864	19-183951	1130 HEATHER SQUARE		PASADENA	P	1926	HIST.SURV.	1109-1191-0132	07/07/92	6Z	
085865	19-183952	1135 HEATHER SQUARE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1931	HIST.SURV.	1109-1191-0133	07/07/92	6L	C
085866	19-183953	1137 HEATHER SQUARE	PALM TERRACE REVIVAL DISTRICT	PASADENA	P	1938	HIST.SURV.	1109-1191-0134	07/07/92	6L	C
085867	19-183954	1138 HEATHER SQUARE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1928	HIST.SURV.	1109-1191-0135	07/07/92	6L	C
085963	19-183977	1139 HEATHER SQUARE	PALM TERRACE REVIVAL DISTRICT	PASADENA	P	1949	HIST.SURV.	1109-1191-0136	07/07/92	6L	C
085868	19-183955	1141 HEATHER SQUARE	REVIVAL PALM TERRACE DISTRICT-	PASADENA	P	1927	HIST.SURV.	1109-1191-0137	07/07/92	6L	C
085869	19-183956	1145 HEATHER SQUARE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1926	HIST.SURV.	1109-1191-0138	07/07/92	6L	C
085965	19-183978	1146 HEATHER SQUARE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1925	HIST.SURV.	1109-1191-0139	07/07/92	6L	C
085967	19-183979	1149 HEATHER SQUARE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1928	HIST.SURV.	1109-1191-0140	07/07/92	6L	C
085968	19-183980	1151 HEATHER SQUARE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1924	HIST.SURV.	1109-1191-0141	07/07/92	6L	C
085970	19-183981	1152 HEATHER SQUARE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1929	HIST.SURV.	1109-1191-0142	07/07/92	6L	C
085971	19-183982	1155 HEATHER SQUARE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1938	HIST.SURV.	1109-1191-0143	07/07/92	6L	C
085972	19-183983	1158 HEATHER SQUARE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1925	HIST.SURV.	1109-1191-0144	07/07/92	6L	C

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098598	19-185021	218 MADELINE DR	G SUTTER AND WILLIAM C BURNS HOUSE	PASADENA	S	1908	HIST.RES.	DOE-19-83-0016-0060	11/20/95	6Y	AC
							CHRIS	19-150062	05/11/94	7	
							PROJ.REVW.	FHWA830201A	02/28/83	6Y	AC
098599	19-185022	225 MADELINE DR	DR LOUISE WAGNER HOUSE	PASADENA	S	1920	HIST.RES.	DOE-19-83-0016-0061	11/20/95	2D2	AC
							CHRIS	19-150059	05/11/94	7	
							PROJ.REVW.	FHWA830201A	02/28/83	2D2	AC
098600	19-185023	230 MADELINE DR	CHARLES S. CONNER HOUSE (BY 1914)	PASADENA	S	1905	HIST.RES.	DOE-19-83-0016-0062	11/20/95	2D2	AC
							CHRIS	19-150061	05/10/94	7	
							PROJ.REVW.	FHWA820201A	02/28/83	2D2	AC
098601	19-185024	235 MADELINE DR	HOUSE FOR MISS L.D. WAGNER	PASADENA	P	1923	HIST.RES.	DOE-19-83-0016-0063	11/20/95	2D2	AC
							CHRIS	19-150060	05/11/94	7	
							PROJ.REVW.	FHWA830201A	02/28/83	2D2	AC
097854	19-184972	430 MADELINE DR	PASADENA CHAPTER - AMERICAN RED CR	PASADENA	P	1922	HIST.RES.	DOE-19-94-0272-0000	07/18/94	2S2	
							PROJ.REVW.	HRG940202Z	07/18/94	2S2	
065069	19-183188	26 MADRE ST		PASADENA	U		PROJ.REVW.	HUD870304B	03/04/87	6Y	
138511		600 MAGNOLIA AVE		PASADENA	P	1938	HIST.SURV.	1109-1906-0000	10/02/02	5S1	C
095239	19-184792	1125 MAGNOLIA AVE		PASADENA		1922	PROJ.REVW.	HUD940429N	09/19/94	6Y	
031488	19-180859	MANZANITA AVE		PASADENA	P	1887	HIST.SURV.	1109-0363-9999		7R	
031461	19-180857	726 MANZANITA AVE		PASADENA	P	1887	HIST.SURV.	1109-0363-0002		7R	
031474	19-180844	733 MANZANITA AVE		PASADENA	P	1903	HIST.SURV.	1109-0363-0015		7R	
031462	19-180856	766 MANZANITA AVE		PASADENA	P	1908	HIST.SURV.	1109-0363-0003		7R	
031463	19-180855	800 MANZANITA AVE		PASADENA	P	1900	HIST.SURV.	1109-0363-0004		7R	
031475	19-180843	801 MANZANITA AVE		PASADENA	P	1923	HIST.SURV.	1109-0363-0016		7R	
031476	19-180842	807 MANZANITA AVE		PASADENA	P	1929	HIST.SURV.	1109-0363-0017		7R	
031464	19-180854	808 MANZANITA AVE		PASADENA	P	1895	HIST.SURV.	1109-0363-0005		7R	
031465	19-180853	814 MANZANITA AVE		PASADENA	P	1924	HIST.SURV.	1109-0363-0006		7R	
031477	19-180841	815 MANZANITA AVE		PASADENA	P	1929	HIST.SURV.	1109-0363-0018		7R	
031466	19-180852	822 MANZANITA AVE		PASADENA	P	1935	HIST.SURV.	1109-0363-0007		7R	
031478	19-180840	823 MANZANITA AVE		PASADENA	P	1929	HIST.SURV.	1109-0363-0019		7R	
031467	19-180851	832 MANZANITA AVE		PASADENA	P	1925	HIST.SURV.	1109-0363-0008		7R	
031468	19-180850	840 MANZANITA AVE		PASADENA	P	1928	HIST.SURV.	1109-0363-0009		7R	
031479	19-180839	841 MANZANITA AVE		PASADENA	P	1930	HIST.SURV.	1109-0363-0020		7R	
031469	19-180849	848 MANZANITA AVE		PASADENA	P	1922	HIST.SURV.	1109-0363-0010		7R	
031480	19-180838	849 MANZANITA AVE		PASADENA	P	1929	HIST.SURV.	1109-0363-0021		7R	
031481	19-180837	855 MANZANITA AVE		PASADENA	P	1929	HIST.SURV.	1109-0363-0022		7R	
031470	19-180848	856 MANZANITA AVE		PASADENA	P	1900	HIST.SURV.	1109-0363-0011		7R	
031471	19-180847	862 MANZANITA AVE		PASADENA	P	1922	HIST.SURV.	1109-0363-0012		7R	
031482	19-180836	863 MANZANITA AVE		PASADENA	P	1928	HIST.SURV.	1109-0363-0023		7R	
031483	19-180835	867 MANZANITA AVE		PASADENA	P	1928	HIST.SURV.	1109-0363-0024		7R	
031484	19-180834	873 MANZANITA AVE		PASADENA	P	1928	HIST.SURV.	1109-0363-0025		7R	
031472	19-180846	880 MANZANITA AVE		PASADENA	P	1922	HIST.SURV.	1109-0363-0013		7R	
031485	19-180833	901 MANZANITA AVE		PASADENA	P	1920	HIST.SURV.	1109-0363-0026		7R	
031486	19-180832	909 MANZANITA AVE		PASADENA	P	1920	HIST.SURV.	1109-0363-0027		7R	
031473	19-180845	928 MANZANITA AVE		PASADENA	P	1927	HIST.SURV.	1109-0363-0014		7R	
031487	19-181370	928 MANZANITA AVE		PASADENA	P	1920	HIST.SURV.	1109-0363-0028		7R	
096501	19-184839	395 MAPLE WY		PASADENA	P	1909	HIST.SURV.	1109-1673-0000	09/20/94	6L	C
139695		407 MAPLE WY	C. A. KNOCH HOUSE	PASADENA	P	1905	HIST.SURV.	1109-2018-0000		6L	
096502	19-184840	411 MAPLE WY		PASADENA	P	1907	HIST.SURV.	1109-1674-0000	09/20/94	6L	C
096503	19-184841	419 MAPLE WY		PASADENA	P		HIST.SURV.	1109-1675-0000	09/20/94	7R	
096504	19-184842	420 MAPLE WY		PASADENA	P		HIST.SURV.	1109-1676-0000	09/20/94	7R	
096505	19-184843	425 MAPLE WY		PASADENA	P	1906	HIST.SURV.	1109-1677-0000	09/20/94	6L	C
096506	19-184844	428 MAPLE WY		PASADENA	P	1921	HIST.SURV.	1109-1678-0000	09/20/94	6L	C
096507	19-184845	433 MAPLE WY		PASADENA	P	1905	HIST.SURV.	1109-1679-0000	09/20/94	6L	C
096508	19-184846	434 MAPLE WY		PASADENA	P	1906	HIST.SURV.	1109-1680-0000	09/20/94	6L	C
096509	19-184847	446 MAPLE WY		PASADENA	P	1912	HIST.SURV.	1109-1681-0000	09/20/94	6Z	C
032241	19-181769	407 MAR VISTA AVE		PASADENA	P	1924	HIST.SURV.	1109-0403-0407		7R	

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
030856	19-180151	MARENGO AVE	MARENGO AVE/VILLA GROUPING	PASADENA	P	1890	HIST.SURV.	1109-0151-9999	01/01/78	7N	
069437	19-183246	385 MARENGO AVE	EVANSTON INN	PASADENA	U		PROJ.REVW.		10/28/77	2S	
030848	19-180143	417 MARENGO AVE	JOHN KNERR HOUSE, GARMAN HOUSE	PASADENA	P	1890	HIST.SURV.	1109-0151-0001		7N	
030849	19-180144	427 MARENGO AVE	D. A. DAVIS HOUSE, ALLEN HOUSE	PASADENA	P	1906	HIST.SURV.	1109-0151-0002		7N	
030850	19-180145	439 MARENGO AVE	SACKMAN HOUSE, LITTLE HOUSE	PASADENA	P	1895	HIST.SURV.	1109-0151-0003		7N	
030851	19-180146	447 MARENGO AVE	J G BAUGHMAN HOUSE, WEHMEYER HOUSE	PASADENA	P	1920	HIST.SURV.	1109-0151-0004		7N	
030852	19-180147	455 MARENGO AVE	TU HOUSE	PASADENA	P	1913	HIST.SURV.	1109-0151-0005		7N	
030853	19-180148	463 MARENGO AVE	MEIER/WILSON HOUSE	PASADENA	P	1915	HIST.SURV.	1109-0151-0006		7N	
030854	19-180149	471 MARENGO AVE	M F CURTIS HOUSE, SACKMAN HOUSE	PASADENA	P	1904	HIST.SURV.	1109-0151-0007		7N	
031025	19-180320	MARKHAM PL	MARKHAM PLACE DISTRICT	PASADENA	P	1888	HIST.SURV.	1109-0205-9999	01/01/83	2S2	
031013	19-180308	276 MARKHAM PL	FORD HOUSE	PASADENA	P	1908	HIST.SURV.	1109-0205-0055		3D	
031014	19-180309	282 MARKHAM PL	JUTTON HOUSE	PASADENA	P	1912	HIST.SURV.	1109-0205-0056		3D	
030984	19-180279	288 MARKHAM PL	CRUSE HOUSE	PASADENA	P	1905	HIST.SURV.	1109-0205-0026		3D	
030972	19-180267	295 MARKHAM PL	LOCKWOOD HOUSE	PASADENA	P	1903	HIST.SURV.	1109-0205-0014		3D	
030968	19-180263	303 MARKHAM PL	BRACKETT HOUSE	PASADENA	P	1900	HIST.SURV.	1109-0205-0010		3D	
030966	19-180261	317 MARKHAM PL	ROBBINS HOUSE	PASADENA	P	1898	HIST.SURV.	1109-0205-0008		3D	
031015	19-180310	320 MARKHAM PL		PASADENA	P	1911	HIST.SURV.	1109-0205-0057		3D	
031016	19-180311	330 MARKHAM PL		PASADENA	P	1927	HIST.SURV.	1109-0205-0058		3D	
030967	19-180262	337 MARKHAM PL	MISS McPHERSON HOUSE	PASADENA	P	1890	HIST.SURV.	1109-0205-0009		3D	
030962	19-180257	346 MARKHAM PL	BLANKENHORN/LAMPHEAR HOUSE	PASADENA	P	1893	HIST.SURV.	1109-0205-0004		3D	
030975	19-180270	353 MARKHAM PL	SWIFT HOUSE	PASADENA	P	1976	HIST.SURV.	1109-0205-0017		7R	
030987	19-180282	366 MARKHAM PL	CURTIS HOUSE	PASADENA	P	1912	HIST.SURV.	1109-0205-0029		3D	
100254	19-185115	MEMORIAL PARK	LIBRARY MONUMENT	PASADENA	M	1880	HIST.RES.	DOE-19-95-0054-0000	04/05/95	6Y	
							PROJ.REVW.	HRG940202Z	04/05/95	6Y	
030630	19-179935	102 MERCANTILE PL	MORGAN'S LIVERY STABLE / FLEXI-LIN	PASADENA	P	1887	TAX.CERT.	537.9-19-0020	11/08/83	2D3	
							HIST.SURV.	1109-0091-0097	01/01/83	1D	
							HIST.SURV.	1109-2167-0090	06/01/81	2D	ABC
							HIST.RES.	DOE-19-80-0003-0097	04/15/80	2D	ABC
095237	19-184791	632 MILAN AVE		PASADENA		1920	PROJ.REVW.	HUD940429M	09/19/94	6Y	
030620	19-179925	22 MILLS PL		PASADENA	P	1907	HIST.SURV.	1109-0091-0082	01/01/83	1D	
							HIST.SURV.	1109-2167-76	06/01/81	2D	ABC
							HIST.RES.	DOE-19-80-0003-0082	04/15/80	2D	ABC
030621	19-179926	30 MILLS PL	CROWN MATTRESS COMPANY	PASADENA	U	1888	TAX.(NPS)	053085CA	11/30/85	2D3	
							TAX.CERT.	537.9-19-0162	11/20/85	2D3	
							HIST.SURV.	1109-0091-0083	01/01/83	1D	
							HIST.RES.	DOE-19-80-0003-0083	04/15/80	2D2	ABC
030622	19-179927	32 MILLS PL	CROWN MATTRESS COMPANY	PASADENA	P	1923	TAX.(NPS)	053885CA	11/30/85	2D	
							HIST.SURV.	1109-0091-0084	01/01/83	1D	
							HIST.RES.	DOE-19-80-0003-0084	04/15/80	2D	ABC
073692	19-183555	40 MILLS PL	CROWN MATTRESS COMPANY	PASADENA	P	0	TAX.CERT.	537.9-19-0160	11/30/85	2D3	
134476		3246 MILTON ST		PASADENA		1924	HIST.RES.	DOE-19-02-1066-0000	10/09/02	6U	
							PROJ.REVW.	HUD021009N	10/09/02	6U	
083811	19-183938	3417 MILTON ST		PASADENA	U	1924	PROJ.REVW.	HUD910909N	08/24/93	6Y	
032772	19-182295	688 MIRA MONTE PL	DR. E. M. DRAPER HOUSE	PASADENA	P	1910	HIST.SURV.	1109-0766-0000	06/02/92	6Z	
032773	19-182296	691 MIRA MONTE PL	APARTMENTS	PASADENA	P	1928	HIST.SURV.	1109-0767-0000	06/02/92	5S1	
138535		691 MIRA MONTE PL		PASADENA	P	1928	HIST.SURV.	1109-1927-0000	10/02/02	5S1	C
153189		MISSION ST	CITY OF SOUTH PASADENA RECREATION	PASADENA	M	1939	PROJ.REVW.	FCC050222I	04/21/05	2S2	AC
126036		2121 MONTE VISTA ST	THE HERMITAGE (JAMES CRAIG ADOBE)	PASADENA	P	1869	NAT.REG.	19-0350	02/20/01	3S	C
							HIST.RES.	NPS-01000328-0000	04/05/01	1S	C
095240	19-184793	1700 MONTEREY RD		PASADENA		1920	PROJ.REVW.	HUD9404290	09/19/94	6Y	
072003	19-183536	2935 MORNINGSIDE ST		PASADENA	P	1951	HIST.SURV.	1109-1077-0070	06/26/91	5D1	
095235	19-184790	510 MOUND AVE		PASADENA		1915	PROJ.REVW.	HUD940429L	09/19/94	6Y	
032925	19-182448	MOUNTAIN ST	WILSON RESERVOIR, McDONALD PARK	PASADENA	M	1977	HIST.SURV.	1109-0774-0146		7R	
139884		32 N ALLEN AVE		PASADENA	P	1920	HIST.SURV.	1109-2108-0000		7R	
139885		45 N ALLEN AVE		PASADENA	P	1915	HIST.SURV.	1109-2109-0000		6L	
139886		92 N ALLEN AVE		PASADENA	P	1914	HIST.SURV.	1109-2110-0000		6L	

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
086058	19-184025	1108 PALM TERRACE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1925	HIST.SURV.	1109-1191-0104	07/07/92	6L	C
086060	19-184026	1115 PALM TERRACE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1925	HIST.SURV.	1109-1191-0105	07/07/92	6L	C
086061	19-184027	1116 PALM TERRACE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1927	HIST.SURV.	1109-1191-0106	07/07/92	6L	C
086062	19-184028	1121 PALM TERRACE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P		HIST.SURV.	1109-1191-0107	07/07/92	6L	C
086063	19-184029	1126 PALM TERRACE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P		HIST.SURV.	1109-1191-0108	07/07/92	6L	C
086064	19-184030	1130 PALM TERRACE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1926	HIST.SURV.	1109-1191-0109	07/07/92	6L	C
086066	19-184031	1131 PALM TERRACE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1948	HIST.SURV.	1109-1191-0110	07/07/92	6L	C
086067	19-184032	1140 PALM TERRACE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1942	HIST.SURV.	1109-1191-0111	07/07/92	6L	C
086068	19-184033	1143 PALM TERRACE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1926	HIST.SURV.	1109-1191-0112	07/07/92	6L	C
086069	19-184034	1146 PALM TERRACE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1924	HIST.SURV.	1109-1191-0113	07/07/92	6L	C
086071	19-184035	1147 PALM TERRACE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1945	HIST.SURV.	1109-1191-0114	07/07/92	6L	C
086072	19-184036	1155 PALM TERRACE		PASADENA	P	1946	HIST.SURV.	1109-1191-0115	07/07/92	6Z	
086073	19-184037	1156 PALM TERRACE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1927	HIST.SURV.	1109-1191-0116	07/07/92	6L	C
086074	19-184038	1160 PALM TERRACE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1930	HIST.SURV.	1109-1191-0117	07/07/92	6L	C
086075	19-184039	1167 PALM TERRACE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1927	HIST.SURV.	1109-1191-0118	07/07/92	6L	C
086076	19-184040	1170 PALM TERRACE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1926	HIST.SURV.	1109-1191-0119	07/07/92	6L	C
086077	19-184041	1177 PALM TERRACE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1936	HIST.SURV.	1109-1191-0120	07/07/92	6L	C
086078	19-184042	1180 PALM TERRACE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1930	HIST.SURV.	1109-1191-0121	07/07/92	6L	C
086079	19-184043	1181 PALM TERRACE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1927	HIST.SURV.	1109-1191-0122	07/07/92	6L	C
086080	19-184044	1189 PALM TERRACE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1926	HIST.SURV.	1109-1191-0123	07/07/92	6L	C
086081	19-184045	1190 PALM TERRACE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1928	HIST.SURV.	1109-1191-0124	07/07/92	6L	C
086082	19-184046	1194 PALM TERRACE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1924	HIST.SURV.	1109-1191-0125	07/07/92	6L	C
086083	19-184047	1200 PALM TERRACE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1927	HIST.SURV.	1109-1191-0126	07/07/92	6L	C
086084	19-184048	1201 PALM TERRACE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1925	HIST.SURV.	1109-1191-0127	07/07/92	6L	C
086085	19-184049	1205 PALM TERRACE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1938	HIST.SURV.	1109-1191-0128	07/07/92	6L	C
086086	19-184050	1210 PALM TERRACE	REVIVAL PALM TERRACE DISTRICT	PASADENA	P	1925	HIST.SURV.	1109-1191-0129	07/07/92	6L	C
032383	19-181907	611 PALM VIEW PL		PASADENA	P	1931	HIST.SURV.	1109-0482-0001		7R	
032387	19-181911	611 PALM VIEW PL	PALM VIEW PLACE GROUPING	PASADENA	P	1923	HIST.SURV.	1109-0482-9999		7R	
032384	19-181908	615 PALM VIEW PL		PASADENA	P	1925	HIST.SURV.	1109-0482-0002		7R	
032385	19-181909	625 PALM VIEW PL		PASADENA	P	1923	HIST.SURV.	1109-0482-0003		7R	
032386	19-181910	631 PALM VIEW PL		PASADENA	P	1923	HIST.SURV.	1109-0482-0004		7R	
031033	19-180328	28 PALMETTO DR		PASADENA	P	1911	HIST.SURV.	1109-0208-0001		5D2	
031038	19-180333	29 PALMETTO DR		PASADENA	P	1903	HIST.SURV.	1109-0208-0006		5D2	
031039	19-180334	31 PALMETTO DR		PASADENA	P	1903	HIST.SURV.	1109-0208-0007		5D2	
031080	19-180375	31 PALMETTO DR		PASADENA	P	1903	HIST.SURV.	1109-1133-0000	06/19/91	7R	
031034	19-180329	34 PALMETTO DR		PASADENA	P	1907	HIST.SURV.	1109-0208-0002		5D2	
070921	19-183436	34 PALMETTO DR	VOGEL HOUSE	PASADENA	P	1907	HIST.SURV.	1109-1141-0000	06/20/91	7R	
031040	19-180335	43 PALMETTO DR		PASADENA	P	1903	HIST.SURV.	1109-0208-0008		5D2	
031041	19-180336	51 PALMETTO DR		PASADENA	P	1903	HIST.SURV.	1109-0208-0009		5D2	
031083	19-180378	51 PALMETTO DR	RYDER-McDONALD HOUSE	PASADENA	P	1902	HIST.SURV.	1109-1134-0000	06/19/91	7R	
031042	19-180337	59 PALMETTO DR		PASADENA	P	1894	HIST.SURV.	1109-0208-0010		5D2	
031159	19-180453	59 PALMETTO DR		PASADENA	P	1887	HIST.SURV.	1109-1135-0000		7R	
031043	19-180338	67 PALMETTO DR		PASADENA	P	1894	HIST.SURV.	1109-0208-0011		5D2	
070912	19-183431	67 PALMETTO DR	ALLEN HOUSE	PASADENA	P	1894	HIST.SURV.	1109-1136-0000	06/19/91	7R	
031044	19-180339	71 PALMETTO DR		PASADENA	P	1894	HIST.SURV.	1109-0208-0012		5D2	
070923	19-183437	78 PALMETTO DR		PASADENA	P	1923	HIST.SURV.	1109-1142-0000	06/20/91	7R	
070914	19-183432	81 PALMETTO DR		PASADENA	P	1886	HIST.SURV.	1109-1137-0000	06/19/91	7R	
031045	19-180340	81 PALMETTO DR		PASADENA	P	1894	HIST.SURV.	1109-0208-0013		5D2	
031035	19-180330	86 PALMETTO DR		PASADENA	P	1904	HIST.SURV.	1109-0208-0003		5D2	
070925	19-183438	86 PALMETTO DR		PASADENA	P	1902	HIST.SURV.	1109-1143-0000	06/20/91	7R	
031046	19-180341	87 PALMETTO DR		PASADENA	P	1894	HIST.SURV.	1109-0208-0014		5D2	
070916	19-183433	89 PALMETTO DR		PASADENA	P	1885	HIST.SURV.	1109-1138-0000	06/19/91	7R	
070918	19-183434	97 PALMETTO DR		PASADENA	P	1903	HIST.SURV.	1109-1139-0000	06/19/91	7R	
031047	19-180342	97 PALMETTO DR		PASADENA	P	1903	HIST.SURV.	1109-0208-0015		5D2	
* + 031036	19-180331	100 PALMETTO DR	PALMETTO COURT/BUNGALOW COURTS OF	PASADENA	P	1915	HIST.RES.	NPS-83001201-0000	07/11/83		
							HIST.SURV.	1109-0208-0004	07/11/83	1D	

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
070927	19-183439	100 PALMETTO DR	PALMETTO CT	PASADENA	P	1915	HIST.SURV.	1109-1144-0000	06/20/91	7R	
070920	19-183435	103 PALMETTO DR		PASADENA	P	1903	HIST.SURV.	1109-1140-0000	06/19/91	7R	
031048	19-180343	103 PALMETTO DR		PASADENA	P	1903	HIST.SURV.	1109-0208-0016		5D2	
031049	19-180344	107 PALMETTO DR		PASADENA	P	1905	HIST.SURV.	1109-0208-0017		5D2	
070933	19-183442	112 PALMETTO DR		PASADENA	P	1895	HIST.SURV.	1109-1147-0000	06/20/91	7R	
070931	19-183441	114 PALMETTO DR		PASADENA	P	1916	HIST.SURV.	1109-1146-0000	06/20/91	7R	
031050	19-180345	115 PALMETTO DR		PASADENA	P	1905	HIST.SURV.	1109-0208-0018		5D2	
070929	19-183440	116 PALMETTO DR		PASADENA	P	1888	HIST.SURV.	1109-1145-0000	06/20/91	7R	
031051	19-180346	125 PALMETTO DR		PASADENA	P	1903	HIST.SURV.	1109-0208-0019		5D2	
031037	19-180332	126 PALMETTO DR		PASADENA	P	1908	HIST.SURV.	1109-0208-0005		5D2	
031052	19-180347	145 PALMETTO DR		PASADENA	P	1948	HIST.SURV.	1109-0208-0020		7R	
096539	19-184874	245 PARKE ST		PASADENA	P		HIST.SURV.	1109-1708-0000	09/20/94	7R	
030896	19-180191	261 PARKE ST		PASADENA	P	1915	NAT.REG.	19-0441	02/19/04	7J	
							HIST.SURV.	1109-0170-0000		7N	
096540	19-184875	270 PARKE ST		PASADENA	P		HIST.SURV.	1109-1709-0000	09/20/94	7R	
096541	19-184876	271 PARKE ST		PASADENA	P		HIST.SURV.	1109-1710-0000	09/20/94	7R	
096542	19-184877	276 PARKE ST		PASADENA	P		HIST.SURV.	1109-1711-0000	09/20/94	7R	
096543	19-184878	282 PARKE ST		PASADENA	P		HIST.SURV.	1109-1712-0000	09/20/94	7R	
096544	19-184879	287 PARKE ST		PASADENA	P		HIST.SURV.	1109-1713-0000	09/20/94	7R	
096545	19-184880	295 PARKE ST		PASADENA	P		HIST.SURV.	1109-1714-0000	09/20/94	7R	
030897	19-180192	303 PARKE ST		PASADENA	P	1895	HIST.SURV.	1109-0171-0000		7N	
096546	19-184881	305 PARKE ST		PASADENA	P		HIST.SURV.	1109-1715-0000	09/20/94	7R	
030898	19-180193	335 PARKE ST		PASADENA	P	1888	HIST.SURV.	1109-0172-0000	09/20/94	7R	
030899	19-180194	340 PARKE ST		PASADENA	P		HIST.SURV.	1109-0173-0000		7R	
096547	19-184882	347 PARKE ST		PASADENA	P		HIST.SURV.	1109-1716-0000	09/20/94	7R	
096548	19-184883	359 PARKE ST		PASADENA	P		HIST.SURV.	1109-1717-0000	09/20/94	7R	
096549	19-184884	363 PARKE ST		PASADENA	P		HIST.SURV.	1109-1718-0000	09/20/94	7R	
030900	19-180195	363 PARKE ST		PASADENA	P	1904	HIST.SURV.	1109-0174-0000		7N	
096550	19-184885	375 PARKE ST		PASADENA	P		HIST.SURV.	1109-1719-0000	09/20/94	7R	
030901	19-180196	380 PARKE ST	REINWAY COURT	PASADENA	P	1915	NAT.REG.	19-0442	08/16/04	7W	
							HIST.SURV.	1109-0175-0000		3S	
096551	19-184886	383 PARKE ST		PASADENA	P	1904	HIST.SURV.	1109-1720-0000	09/20/94	6L	
096552	19-184887	403 PARKE ST		PASADENA	P		HIST.SURV.	1109-1721-0000	09/20/94	7R	
031187	19-180480	PASADENA CIVIC CENTER	CIVIC CENTER COMMUNITY DESIGNS	PASADENA	M		HIST.SURV.	1109-0258-0029		3D	
083467	19-183905	35 PENN ST	RAYMOND PENN COURT	PASADENA	P	1930	HIST.SURV.	1109-1189-0021	12/09/93	6Z	
083468	19-183906	37 PENN ST	RAYMOND PENN COURT	PASADENA	P	1930	HIST.SURV.	1109-1189-0022	12/09/93	6Z	
083469	19-183907	39 PENN ST	RAYMOND PENN COURT	PASADENA	P	1930	HIST.SURV.	1109-1189-0023	12/09/93	6Z	
083470	19-183908	43 PENN ST	RAYMOND PENN COURT	PASADENA	P	1930	HIST.SURV.	1109-1189-0024	12/09/93	6Z	
083471	19-183909	47 PENN ST	RAYMOND PENN COURT	PASADENA	P	1930	HIST.SURV.	1109-1189-0025	12/09/93	6Z	
083472	19-183910	51 PENN ST	RAYMOND PENN COURT	PASADENA	P	1930	HIST.SURV.	1109-1189-0026	12/09/93	6Z	
083281	19-183846	1494 PEPPER DR		PASADENA	U	1909	PROJ.REVW.	HUD891231B	08/04/93	6Y	
032388	19-181912	245 PLEASANT ST		PASADENA	P	1932	HIST.SURV.	1109-0483-0000		7R	
032389	19-181913	254 PLEASANT ST	ALMINA AND SILAS CROWELL HOME	PASADENA	P	1906	HIST.SURV.	1109-0484-0000		7R	
032390	19-181914	278 PLEASANT ST	DEAN FREEMAN HOME	PASADENA	P	1897	HIST.SURV.	1109-0485-0000		7R	
123192		285 PLEASANT ST	T.C. LYNCH HOUSE	PASADENA	P	1888	HIST.SURV.	1109-0486-0000		7R	
032392	19-181915	288 PLEASANT ST	ELIZABETH DANIELS HOME	PASADENA	P	1906	HIST.SURV.	1109-0487-0000		7R	
032393	19-181916	298 PLEASANT ST	EARL SALSBURY HOUSE	PASADENA	P	1907	HIST.SURV.	1109-0488-0000		7R	
032394	19-181917	312 PLEASANT ST	H. S. TAGGERT, DR. JEFFERY BARTON	PASADENA	P	1895	HIST.SURV.	1109-0489-0000		7R	
032395	19-181918	328 PLEASANT ST	JOHN AND HARRIET GIMPER HOME	PASADENA	P	1909	HIST.SURV.	1109-0490-0000		7R	
126809		331 PLEASANT ST		PASADENA	P	1905	HIST.SURV.	1109-0492-0000		7R	
032396	19-181919	335 PLEASANT ST	MRS. HARRY COLEMAN HOME	PASADENA	P	1925	HIST.SURV.	1109-0491-0000		7R	
064576	19-183094	265 PLYMOUTH DR		PASADENA	P	1930	HIST.SURV.	1109-0994-0000	06/05/91	7R	
031789	19-181314	PRESCOTT ST	PRESCOTT STREET HOMES	PASADENA	P	1900	HIST.SURV.	1109-0394-9999		7R	
069470	19-183250	PRIME CT	PRIME COURT	PASADENA	P	1924	NAT.REG.	19-0133	11/15/94	1S	C
							HIST.RES.	NPS-94001314-9999	11/15/94	1S	C
							HIST.SURV.	1109-1072-0000	06/13/91	7N1	

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064568	19-183086	272 ROBINCROFT DR		PASADENA	P	1957	HIST.SURV.	1109-0987-0002	06/05/91	7R	
064570	19-183088	275 ROBINCROFT DR	ROBINCROFT/THE CASTLE	PASADENA	P	1899	HIST.SURV.	1109-0988-0000	06/05/91	3S	
064569	19-183087	280 ROBINCROFT DR		PASADENA	P	1950	HIST.SURV.	1109-0987-0003	06/04/91	7R	
064571	19-183089	290 ROBINCROFT DR	D. S. SPENCER HOUSE	PASADENA	P	1928	HIST.SURV.	1109-0989-0000	06/05/91	7R	
064572	19-183090	245 ROBINSON RD	IDA HITCHCOCK HOUSE	PASADENA	P	1925	HIST.SURV.	1109-0990-0000	06/05/91	7R	
064573	19-183091	246 ROBINSON RD		PASADENA	P	1927	HIST.SURV.	1109-0991-0000	06/05/91	7R	
064574	19-183092	255 ROBINSON RD		PASADENA	P	1927	HIST.SURV.	1109-0992-0000	06/05/91	7R	
064575	19-183093	265 ROBINSON RD	REVEREND THOMAS GRIER HOUSE	PASADENA	P	1927	HIST.SURV.	1109-0993-0000	06/05/91	7R	
066593	19-183193	1962 ROSE VILLA ST		PASADENA	U		PROJ.REVW.	HUD880404B	05/02/88	6Y	
081122	19-183727	2072 ROSE VILLA ST		PASADENA	U	1926	PROJ.REVW.	HUD871027C	01/13/93	6Y	
							PROJ.REVW.	HUD921103F	12/07/92	6Y	
076650	19-183627	500 ROSEMONT AVE		PASADENA	P	1922	HIST.SURV.	1109-0133-0014	04/07/83	6Y	
076648	19-183626	510 ROSEMONT AVE		PASADENA	P	1954	HIST.SURV.	1109-0133-0013	04/07/83	6Y	
076646	19-183625	514 ROSEMONT AVE		PASADENA	P	1920	HIST.SURV.	1109-0133-0012	04/07/83	1D	C
076644	19-183624	536 ROSEMONT AVE		PASADENA	P	1927	HIST.SURV.	1109-0133-0011	04/07/83	6Y	
076643	19-183623	546 ROSEMONT AVE		PASADENA	P	1925	HIST.SURV.	1109-0133-0010	04/07/83	1D	C
076641	19-183622	560 ROSEMONT AVE		PASADENA	P	1927	HIST.SURV.	1109-0133-0009	04/07/83	1D	C
076639	19-183621	568 ROSEMONT AVE		PASADENA	P	1932	HIST.SURV.	1109-0133-0008	04/07/83	1D	C
076637	19-183620	584 ROSEMONT AVE		PASADENA	P	1929	HIST.SURV.	1109-0133-0007	04/07/83	1D	C
076632	19-183616	585 ROSEMONT AVE		PASADENA	P	1930	HIST.SURV.	1109-0133-0003	04/07/83	1D	C
076635	19-183619	596 ROSEMONT AVE		PASADENA	P	1918	HIST.SURV.	1109-0133-0006	04/07/83	1D	C
076633	19-183617	607 ROSEMONT AVE		PASADENA	P	1930	HIST.SURV.	1109-0133-0004	04/07/83	1D	C
076634	19-183618	639 ROSEMONT AVE		PASADENA	P	1916	HIST.SURV.	1109-0133-0005	04/07/83	1D	C
076490	19-183609	991 ROSEMONT AVE	ROSE BOWL	PASADENA	M	1922	HIST.RES.	NPS-87000755-0000	02/27/87	1S	AC
							HIST.SURV.	1109-1154-0000	02/27/87	1S	AC
030731	19-180035	85 S ALLEN AVE	LONGFELLOW/HASTINGS HOUSE/OCTAGON	PASADENA	P	1893	HIST.RES.	NPS-82002197-0000	03/02/82	1S	
							HIST.SURV.	1109-0092-0000	01/01/82	1S	
070985	19-183469	115 S ALTADENA DR		PASADENA	P	1950	HIST.SURV.	1109-1149-0028	06/20/91	7R	
070981	19-183467	119 S ALTADENA DR		PASADENA	P	1958	HIST.SURV.	1109-1149-0026	06/20/91	7R	
070983	19-183468	121 S ALTADENA DR		PASADENA	P	1958	HIST.SURV.	1109-1149-0027	06/20/91	7R	
070979	19-183466	175 S ALTADENA DR		PASADENA	P	1953	HIST.SURV.	1109-1149-0025	06/20/91	7R	
070977	19-183465	177 S ALTADENA DR		PASADENA	P	1952	HIST.SURV.	1109-1149-0024	06/20/91	7R	
070975	19-183464	191 S ALTADENA DR		PASADENA	P	1939	HIST.SURV.	1109-1149-0023	06/20/91	7R	
100769	19-185116	177 S ARROYO BLVD	LA CASITA DEL ARROYO	PASADENA	M	1932	HIST.RES.	DOE-19-94-0430-0000	01/20/94	2S2	A
							PROJ.REVW.	HRG940202Z	01/20/94	2S2	A
126600		350 S ARROYO BLVD	LOWER ARROYO SECO HISTORIC DISTRIC	PASADENA	P	1898	NAT.REG.	19-0364	11/30/00	7J	
030732	19-180036	626 S ARROYO BLVD	BATCHELDER HOUSE	PASADENA	P	1910	HIST.RES.	NPS-78000695-0000	12/14/78	1S	
							HIST.SURV.	1109-0093-0000	01/01/78	1S	
161274		45 S ARROYO PARKWAY		PASADENA	P		HIST.SURV.	1109-2167-0132	06/01/81	2D	ABC
070849	19-183398	171 S ARROYO PARKWAY	P S PUBLIC STORAGE / PASADENA WINT	PASADENA	P	1940	HIST.SURV.	1109-1088-0000	06/19/91	3S	
070850	19-183399	411 S ARROYO PARKWAY	CORNET BUILDING/CORNET BUILDING	PASADENA	P	1945	HIST.SURV.	1109-1089-0000	06/19/91	7N1	
030750	19-180051	432 S ARROYO PARKWAY	HOME LAUNDRY	PASADENA	P	1922	HIST.SURV.	1109-1090-0000	09/01/89	1S	
							HIST.RES.	NPS-87000980-0000	06/18/87	1S	
							NAT.REG.	19-0165	06/18/87	1S	
							HIST.SURV.	1109-0105-0000	05/01/87	3S	
070854	19-183400	455 S ARROYO PARKWAY	DISCOUNT TIRES/PACIFIC ELECTRIC RA	PASADENA	P	1923	HIST.SURV.	1109-1091-0000	06/19/91	5S2	
070856	19-183401	501 S ARROYO PARKWAY	MARKET BASKET WAREHOUSE OFFICES	PASADENA	P	1940	HIST.SURV.	1109-1092-0000	06/19/91	6X	
070858	19-183402	517 S ARROYO PARKWAY	LEWIS IRON BUILDING	PASADENA	P	1922	HIST.SURV.	1109-1093-0000	06/19/91	6X	
070860	19-183403	544 S ARROYO PARKWAY	BRYANS CLEANERS	PASADENA	P	1938	HIST.SURV.	1109-1094-0000	06/19/91	7N1	
087730	19-184704	789 S ARROYO PARKWAY	BATZ MANUFACTURING / BELCO ENGINEE	PASADENA	P	1926	HIST.SURV.	1109-1557-0000	07/01/90	7R	
087731	19-184705	1015 S ARROYO PARKWAY	PASADENA ICE COMPANY / LOS ANGELES	PASADENA	P	1901	HIST.SURV.	1109-1558-0000	07/01/90	7R	
083117	19-183832	S BONNIE AVE	BONNIE COURT	PASADENA	P	1922	NAT.REG.	19-0119	11/15/94	1S	C
							HIST.RES.	NPS-94001325-9999	11/15/94	1S	C
082870	19-183773	140 S BONNIE AVE	BONNIE COURT #2	PASADENA	P	1922	HIST.RES.	NPS-94001325-0002	11/15/94	1D	C
082869	19-183772	140 S BONNIE AVE	BONNIE COURT #1	PASADENA	P	1922	HIST.RES.	NPS-94001325-0001	11/15/94	1D	C
082872	19-183775	140 S BONNIE AVE	BONNIE COURT #4	PASADENA	P	1922	HIST.RES.	NPS-94001325-0004	11/15/94	1D	C

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
							HIST.SURV.	1109-1627-0140	09/15/83	1D	
							HIST.SURV.	1109-0091-0220	09/15/83	1D	C
							HIST.RES.	DOE-19-80-0003-0220	04/15/80	2D	ABC
030690	19-179994	251 S FAIR OAKS AVE	CAMPHOR TREE	PASADENA	P	1920	HIST.RES.	NPS-83001200-0184	09/15/83	1D	ABC
							HIST.SURV.	1109-1627-0141	09/15/83	1D	
							HIST.SURV.	1109-0091-0159	01/01/83	1D	
							HIST.RES.	DOE-19-80-0003-0159	04/15/80	2D	ABC
074682	19-183585	255 S FAIR OAKS AVE		PASADENA	P	1903	HIST.RES.	NPS-83001200-0185	09/15/83	1D	ABC
							HIST.SURV.	1109-1627-0142	09/15/83	1D	
							HIST.SURV.	1109-0091-0221	09/15/83	1D	C
							HIST.RES.	DOE-19-80-0003-0221	04/15/80	2D	ABC
* + 070873	19-183410	300 S FAIR OAKS AVE	UNION GARAGE COMPANY	PASADENA	P	1907	HIST.SURV.	1109-1101-0000	06/15/91	7R	
							HIST.RES.	NPS-83001200-0186	09/15/83	1D	ABC
							HIST.SURV.	1109-1627-0143	09/15/83	1D	
							HIST.SURV.	1109-0091-0222	09/15/83	6X	
							HIST.SURV.	1109-0091-0222	09/15/83	1D	C
							HIST.RES.	DOE-19-80-0003-0222	04/15/80	2D	ABC
							PROJ.REVW.		04/15/80	2D	ABC
070875	19-183411	330 S FAIR OAKS AVE		PASADENA	P	1926	HIST.SURV.	1109-1102-0000	06/19/91	6X	
070877	19-183412	333 S FAIR OAKS AVE	VITALAIT LABORATORIES	PASADENA	P	1924	HIST.SURV.	1109-1103-0000	06/19/91	7N1	
070879	19-183413	445 S FAIR OAKS AVE		PASADENA	P	1930	HIST.SURV.	1109-1104-0000	06/19/91	6X	
070881	19-183414	474 S FAIR OAKS AVE	PASADENA ANTIQUE CENTER/PASADENA T	PASADENA	P	1910	HIST.SURV.	1109-1105-0000	06/19/91	7N1	
070883	19-183415	488 S FAIR OAKS AVE		PASADENA	P	1928	HIST.SURV.	1109-1106-0000	06/19/91	6X	
070885	19-183416	496 S FAIR OAKS AVE	PASADENA AWNING AND LINOLEUM	PASADENA	P	1926	HIST.SURV.	1109-1107-0000	06/19/91	6X	
* + 070887	19-183417	511 S FAIR OAKS AVE	BEKINS MOVING AND STORAGE/PASADENA	PASADENA	P	1925	HIST.RES.	NPS-97001212-0000	12/12/97	1S	AC
							NAT.REG.	19-0226	12/12/97	1S	AC
							HIST.SURV.	1109-1108-0000	06/19/91	5S1	
* + 098228	19-184977	511 S FAIR OAKS AVE	BEKINS STORAGE COMPANY ROOF-TOP SI	PASADENA	P	1925	HIST.RES.	NPS-97001212-0000	11/20/95	1S	AC
							NAT.REG.	19-0226	11/20/95	3S	AC
070889	19-183418	512 S FAIR OAKS AVE	NISHI AUTO PARTS	PASADENA	P	1922	HIST.SURV.	1109-1109-0000	06/19/91	6X	
070891	19-183419	527 S FAIR OAKS AVE	MAN LE RATTAN FURNITURE & GIFT/SUG	PASADENA	P	1932	HIST.SURV.	1109-1110-0000	06/19/91	6X	
070893	19-183420	541 S FAIR OAKS AVE	H. L. HUNTINGTON	PASADENA	P	1919	HIST.SURV.	1109-1111-0000	06/19/91	6X	
070895	19-183421	542 S FAIR OAKS AVE		PASADENA	P	1895	HIST.SURV.	1109-1112-0000	06/19/91	7N1	
070897	19-183422	544 S FAIR OAKS AVE		PASADENA	P	1929	HIST.SURV.	1109-1113-0000	06/19/91	7R	
070901	19-183424	567 S FAIR OAKS AVE	1 WEST CALIFORNIA BOULEVARD	PASADENA	P	1914	HIST.SURV.	1109-1115-0000	06/19/91	6X	
070899	19-183423	574 S FAIR OAKS AVE	SANDERS HOUSE OF LIGHTS	PASADENA	P	1912	HIST.SURV.	1109-1114-0000	06/19/91	6X	
139740		688 S FAIR OAKS AVE		PASADENA	P	1921	HIST.SURV.	1109-2061-0000		7R	
139741		820 S FAIR OAKS AVE	BELLEFONTAINE NURSERY	PASADENA		1905	HIST.SURV.	1109-2062-0000		7N1	
087748	19-184718	860 S FAIR OAKS AVE	SANITARY FAMILY LAUNDRY / MISSION	PASADENA	P	1928	HIST.SURV.	1109-1573-0000	07/01/90	7N1	
139742		933 S FAIR OAKS AVE		PASADENA		1927	HIST.SURV.	1109-2063-0000		7R	
087752	19-184722	965 S FAIR OAKS AVE	R H FROMM KODAKS / ADLOFF AND KING	PASADENA	P	1921	HIST.SURV.	1109-2064-0000		6L	
							HIST.SURV.	1109-1577-0000	07/01/90	7R	
087749	19-184719	1039 S FAIR OAKS AVE	MISSION MOTOR SERVICE STATION / FA	PASADENA	P	1924	HIST.SURV.	1109-2065-0000		5S2	
							HIST.SURV.	1109-1574-0000	07/01/90	5S2	
087753	19-184723	1075 S FAIR OAKS AVE	GERLACH'S DRIVE-IN LIQUOR	PASADENA	P	1930	HIST.SURV.	1109-2078-0000		7R	
							HIST.SURV.	1109-1578-0000	07/01/90	7R	
087750	19-184720	1154 S FAIR OAKS AVE	LOS ANGELES & PASADENA ELECTRIC RR	PASADENA	M	1894	NAT.REG.	19-0230	05/03/96	7W	
							HIST.SURV.	1109-2079-0000		3S	
							HIST.SURV.	1109-1575-0000	12/20/95	7N1	
									07/01/90		
087751	19-184721	1165 S FAIR OAKS AVE	CROWN CITY ORTHOPEDIC	PASADENA	P	1925	HIST.SURV.	1109-1576-0000	07/01/90	7N1	
139763		1250 S FAIR OAKS AVE	RAYMOND RESTAURANT	PASADENA	P	1925	HIST.SURV.	1109-2074-0000		6L	
027084	19-173053	125 S GRAND AVE	VISTA DEL ARROYO COMPLEX / US COUR	PASADENA	P	1882	HIST.RES.	DOE-19-77-0001-0000	02/20/86	2S	
							HIST.RES.	NPS-81000157-9999	04/02/81	1S	C
							PROJ.REVW.	65001088-9999	02/16/78	2S	

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
116835	19-185133	1011 S MADISON AVE	GARAGE	PASADENA	P	1911	HIST.RES.	NPS-98000959-0002	08/06/98	1D	C
							NAT.REG.	19-0253	08/06/98	1D	C
112968	19-185118	1050 S MADISON AVE	HOUSE AT 1050 SOUTH MADISON AVE	PASADENA	P	1911	HIST.RES.	NPS-98000960-9999	08/06/98	1S	C
							NAT.REG.	19-0252	08/06/98	1S	C
116831	19-185129	1050 S MADISON AVE	SINGLE FAMILY DWELLING	PASADENA	P	1911	HIST.RES.	NPS-98000960-0001	08/06/98	1D	C
							NAT.REG.	19-0252	08/06/98	1D	C
116833	19-185131	1050 S MADISON AVE	PERGOLA	PASADENA	P	1911	HIST.RES.	NPS-98000960-0003	08/06/98	1D	C
							NAT.REG.	19-0252	08/06/98	1D	C
116832	19-185130	1050 S MADISON AVE	GARAGE	PASADENA	P	1911	HIST.RES.	NPS-98000960-0002	08/06/98	1D	C
							NAT.REG.	19-0252	08/06/98	1D	C
030773	19-180068	0 S MARENGO AVE	SOUTH MARENGO HISTORIC DIST	PASADENA	P	1901	HIST.RES.	NPS-82002199-9999	06/12/82	1S	
							PROJ.REVW.		01/01/82	7K	
031186	19-180479	170 S MARENGO AVE	MORETON FIG TREE	PASADENA	M		HIST.SURV.	1109-0258-0028		3D	
031208	19-180501	181 S MARENGO AVE	CHAPMAN MANOR APARTMENTS	PASADENA	P	1951	HIST.SURV.	1109-1910-0000	10/02/02	6L	C
							HIST.SURV.	1109-0272-0000		7R	
031117	19-180411	221 S MARENGO AVE	MONTICELLO APARTMENTS, MONTICELLO	PASADENA	P	1953	HIST.SURV.	1109-1911-0000	10/02/02	3S	C
							HIST.SURV.	1109-0229-0000		7R	
031118	19-180412	255 S MARENGO AVE	STOUTENBURGH HOUSE/AGUILAR HOUSE	PASADENA	P	1893	PROJ.REVW.	FHWA810327A	03/27/81	7K	
							HIST.RES.	NPS-80000814-0000	11/25/80	1S	
							HIST.SURV	1109-0230-0000	01/01/80	1S	
031119	19-180413	291 S MARENGO AVE	DORCHESTER & AMERICAN APARTMENTS,	PASADENA	P	1910	HIST.SURV.	1109-0231-0000		7N	
138513		322 S MARENGO AVE	MIRA FLORA APARTMENTS	PASADENA	P	1939	HIST.SURV.	1109-1912-0000	10/02/02	3S	C
030774	19-180069	374 S MARENGO AVE	DON CARLOS COURT/BUNGALOW COURTS O	PASADENA	P		HIST.RES.	NPS-83001191-0000	07/11/83	1S	
069375	19-183238	374 S MARENGO AVE	DON CARLOS COURT AT 374-386 S. MAR	PASADENA	U		HIST.SURV.	1109-0117-0000	01/01/83	1S	
030775	19-180070	385 S MARENGO AVE	EVANSTON INN	PASADENA	P		PROJ.REVW.		10/28/77	2S	
							HIST.RES.	NPS-84000787-0000	09/13/84	1S	AC
							HIST.RES.	DOE-30-81-0015-0000	06/26/81	2S2	AC
030776	19-180071	427 S MARENGO AVE	BRYAN COURT/BUNGALOW COURTS OF PAS	PASADENA	P		PROJ.REVW.	FHWA810327A	05/29/81	2S2	
							HIST.RES.	NPS-86000790-0000	04/16/86	1S	
							HIST.SURV.	1109-0119-0000	01/01/86	1S	
030777	19-180072	440 S MARENGO AVE	BUNGALOW COURTS OF PASADENA, BELLE	PASADENA	P		PROJ.REVW.		10/28/77	2S	
							HIST.SURV.	1109-0120-0000	01/01/83	2S2	
030761	19-180056	462 S MARENGO AVE		PASADENA	P	1904	PROJ.REVW.		10/28/77	2S	
							TAX.CERT.	537.9-19-0152	08/13/84	2D3	
030762	19-180057	476 S MARENGO AVE		PASADENA	P	1910	HIST.RES.	NPS-82002199-0001	06/12/82	1D	
030763	19-180058	491 S MARENGO AVE		PASADENA	P	1912	HIST.RES.	NPS-82002199-0002	06/12/82	1D	
030764	19-180059	501 S MARENGO AVE		PASADENA	P	1912	HIST.RES.	NPS-82002199-0003	06/12/82	1D	
030765	19-180060	510 S MARENGO AVE		PASADENA	P	1916	HIST.RES.	NPS-82002199-0004	06/12/82	1D	
							TAX.CERT.	537.9-19-0150	08/13/84	2D3	
030766	19-180061	511 S MARENGO AVE		PASADENA	P	1909	HIST.RES.	NPS-82002199-0005	06/12/82	1D	
030767	19-180062	530 S MARENGO AVE	EASTON HOUSE	PASADENA	P	1905	HIST.RES.	NPS-82002199-0006	06/12/82	1D	
							PROJ.REVW.	FHWA810327A	07/27/00	7J	
							HIST.RES.	NPS-82002199-0007	06/12/82	1D	
							FED.FND.PR	629.0-80-HPF-19-02	01/01/80	7L	
030768	19-180063	531 S MARENGO AVE		PASADENA	P	1909	HIST.RES.	NPS-79000492-0000	09/13/79	1S	BC
030769	19-180064	540 S MARENGO AVE		PASADENA	P	1905	HIST.RES.	NPS-82002199-0008	06/12/82	1D	
030770	19-180065	547 S MARENGO AVE		PASADENA	P	1909	HIST.RES.	NPS-82002199-0009	06/12/82	1D	
138514		550 S MARENGO AVE	CAL MAR APARTMENTS	PASADENA	P	1949	HIST.RES.	NPS-82002199-0010	06/12/82	1D	
030771	19-180066	553 S MARENGO AVE		PASADENA	P	1908	HIST.SURV.	1109-1913-0000	10/02/02	5S1	C
030772	19-180067	569 S MARENGO AVE	G G GREEN HOUSE	PASADENA	P	1901	HIST.RES.	NPS-82002199-0011	06/12/82	1D	
							TAX.CERT.	537.9-19-0044	10/29/85	2D3	
030778	19-180073	618 S MARENGO AVE	SARA THEL COURT/BUNGALOW COURTS OF	PASADENA	P		HIST.RES.	NPS-82002199-0012	06/12/82	1D	
							HIST.RES.	NPS-83001192-0000	07/11/83	1S	
							HIST.SURV.	1109-0121-0000	01/01/83	1S	

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							PROJ.REVW.		10/28/77	2S	
030779	19-180074	642 S MARENGO AVE	COTTAGE COURT/BUNGALOW COURTS OF P	PASADENA	P		HIST.RES.	NPS-83001186-0000	07/11/83	1S	
							HIST.SURV.	1109-0122-0000	01/01/83	1S	
							PROJ.REVW.		10/28/77	2S	
138515		670 S MARENGO AVE		PASADENA	P	1936	HIST.SURV.	1109-1914-0000	10/02/02	6L	C
138516		677 S MARENGO AVE		PASADENA	P	1953	HIST.SURV.	1109-1915-0000	10/02/02	6L	C
030780	19-180075	744 S MARENGO AVE	COURT/CONONIAL COURTS/BUNGALOW COU	PASADENA	P		HIST.RES.	NPS-83001188-0000	07/11/83	1S	
							HIST.SURV.	1109-0123-0000	01/01/83	1S	
							PROJ.REVW.		10/28/77	2S	
138517		825 S MARENGO AVE		PASADENA	P	1952	HIST.SURV.	1109-1916-0000	10/02/02	5S1	C
138518		865 S MARENGO AVE		PASADENA	P	1947	HIST.SURV.	1109-1917-0000	10/02/02	5S1	C
138526		877 S MARENGO AVE	PALMER PARKWAY COURT	PASADENA	P	1940	HIST.SURV.	1109-1918-0000	10/02/02	5S1	C
138528		975 S MARENGO AVE		PASADENA	P	1949	HIST.SURV.	1109-1919-0000	10/02/02	6L	C
030782	19-180077	982 S MARENGO AVE	MARENGO GARDENS/BUNGALOW COURTS OF	PASADENA	P		HIST.RES.	NPS-83001197-0000	07/11/83	1S	
							HIST.SURV.	1109-0125-0000	01/01/83	1S	
							PROJ.REVW.		10/28/77	2S	
069366	19-183236	986 S MARENGO AVE		PASADENA	U		PROJ.REVW.		10/28/77	2S	
069367	19-183237	990 S MARENGO AVE		PASADENA	U		PROJ.REVW.		10/28/77	2S	
138512		1250 S MARENGO AVE		PASADENA	P	1947	HIST.SURV.	1109-1909-0000	10/02/02	3S	C
138529		34 S MENTOR AVE	LE CHATEAU	PASADENA	P	1926	HIST.SURV.	1109-1921-0000	10/02/02	3S	C
138530		588 S MENTOR AVE		PASADENA	P	1924	HIST.SURV.	1109-1922-0000	10/02/02	5S1	C
138534		130 S MICHIGAN AVE		PASADENA	P	1949	HIST.SURV.	1109-1926-0000	10/02/02	6L	C
138533		151 S MICHIGAN AVE		PASADENA	P		HIST.SURV.	1109-1925-0000	10/02/02	6L	C
064425	19-182943	327 S MICHIGAN AVE	DR. ROBERT BURT HOUSE	PASADENA	P	1923	HIST.SURV.	1109-0887-0000	06/03/91	7R	
064426	19-182944	332 S MICHIGAN AVE	WILLIAM HOLTZ HOUSE	PASADENA	P	1924	HIST.SURV.	1109-0888-0000	06/03/91	7R	
064427	19-182945	345 S MICHIGAN AVE	TOLMAN-BACHER HOUSE	PASADENA	P	1925	HIST.SURV.	1109-0889-0000	06/03/91	7R	
064428	19-182946	367 S MICHIGAN AVE	COVEY HOUSE	PASADENA	P	1923	HIST.SURV.	1109-0890-0000	06/03/91	7R	
064429	19-182947	375 S MICHIGAN AVE		PASADENA	P	1949	HIST.SURV.	1109-0891-0000	06/03/91	7R	
064424	19-182942	320 S MICHIGAN ST	SUERBORN HOUSE	PASADENA	P	1922	HIST.SURV.	1109-0886-0000	06/03/91	7R	
064423	19-182941	320 S MICHIGAN ST	WILLOCK HOUSE	PASADENA	P	1934	HIST.SURV.	1109-0885-0000	06/03/91	7R	
031834	19-181320	S OAK KNOLL AVE	HUNTINGTON HOTEL HISTORIC DIST / H	PASADENA	P	1906	HIST.SURV.	1109-0401-9999	01/01/86	2D2	
032774	19-182297	101 S OAK KNOLL AVE	JOHN HOLLOWAY HOUSE	PASADENA	P	1915	HIST.SURV.	1109-0768-0000	06/02/92	6Z	
032775	19-182298	209 S OAK KNOLL AVE	ROBERT AND CORA HAMMONS HOUSE	PASADENA	P	1910	HIST.SURV.	1109-0769-0000	06/02/92	6Z	
032776	19-182299	225 S OAK KNOLL AVE		PASADENA	P	1887	HIST.SURV.	1109-0770-0000	06/02/90	6Z	
032777	19-182300	258 S OAK KNOLL AVE	JOHN SCHARSCHMIDT HOME	PASADENA	P	1908	HIST.SURV.	1109-0771-0000	06/02/92	6Z	
032778	19-182301	270 S OAK KNOLL AVE		PASADENA	P	1907	HIST.SURV.	1109-0772-0000	06/02/92	6Z	
032779	19-182302	280 S OAK KNOLL AVE	EDGAR AND ESTHER BOLTE HOME	PASADENA	P	1912	HIST.SURV.	1109-0773-0000	06/02/92	6Z	
032355	19-181879	325 S OAK KNOLL AVE	McKINLEY JUNIOR HIGH SCHOOL, COMMU	PASADENA	D	1923	HIST.SURV.	1109-0467-0000		7R	
032356	19-181880	330 S OAK KNOLL AVE	WILLIAM McKINLEY ELEMENTARY SCHOOL	PASADENA	D	1923	HIST.SURV.	1109-0468-0000		7R	
032357	19-181881	497 S OAK KNOLL AVE	MRS. M. SMITH AND MRS. RENA ALLMON	PASADENA	P	1914	HIST.SURV.	1109-0469-0000		7R	
032358	19-181882	510 S OAK KNOLL AVE	JOHN AND MANNIE BRYANT HOUSE	PASADENA	P	1904	HIST.SURV.	1109-0470-0000		7R	
032359	19-181883	541 S OAK KNOLL AVE	ENGINE COMPANY #34	PASADENA	M	1917	HIST.SURV.	1109-0471-0000		7R	
032360	19-181884	544 S OAK KNOLL AVE	MRS. H. R. HERTEL HOME	PASADENA	P	1921	HIST.SURV.	1109-0472-0000		7R	
031799	19-181332	1375 S OAK KNOLL AVE	TANNER COTTAGE	PASADENA	P	1926	HIST.SURV.	1109-0401-0005	01/01/86	2D2	
031812	19-181345	1401 S OAK KNOLL AVE	FAIRVIEW COTTAGE], FAIRVIEW COTTAG	PASADENA	P	1928	HIST.SURV.	1109-0401-0018	01/01/86	2D2	
031813	19-181346	1401 S OAK KNOLL AVE	TAYLOR COTTAGE, SAYRE COTTAGE	PASADENA	P	1933	HIST.SURV.	1109-0401-0019	01/01/86	2D2	
031814	19-181347	1401 S OAK KNOLL AVE	HARTON HALL	PASADENA	P	1933	HIST.SURV.	1109-0401-0020	01/01/86	2D2	
031815	19-181348	1401 S OAK KNOLL AVE	MONTERY COTTAGE, ROYCE MANOR	PASADENA	P	1929	HIST.SURV.	1109-0401-0021	01/01/86	2D2	
031816	19-181349	1401 S OAK KNOLL AVE	OAK CREST COTTAGE / MAGNOLIA COTTA	PASADENA	P	1919	HIST.SURV.	1109-0401-0022	01/01/86	2D2	
031817	19-181350	1401 S OAK KNOLL AVE	GARDEN VIEW COTTAGE	PASADENA	P	1920	HIST.SURV.	1109-0401-0023	01/01/86	2D2	
031818	19-181351	1401 S OAK KNOLL AVE	FINLEEN COTTAGE, HIGHLAND MANOR	PASADENA	P	1925	HIST.SURV.	1109-0401-0024	01/01/86	2D2	
031819	19-181352	1401 S OAK KNOLL AVE	WISTERIA COTTAGE	PASADENA	P	1927	HIST.SURV.	1109-0401-0025	01/01/86	2D2	
031820	19-181326	1401 S OAK KNOLL AVE	HORSESHOE GARDENS	PASADENA	P	0	HIST.SURV.	1109-0401-0026	01/01/86	2D2	
031821	19-181327	1401 S OAK KNOLL AVE	JAPANESE GARDENS	PASADENA	P	0	HIST.SURV.	1109-0401-0027	01/01/86	2D2	
031822	19-181328	1401 S OAK KNOLL AVE	PICTURE BRIDGE	PASADENA	P	0	HIST.SURV.	1109-0401-0028	01/01/86	2D2	
031823	19-181330	1401 S OAK KNOLL AVE	PERGOLA	PASADENA	P	0	HIST.SURV.	1109-0401-0029	01/01/86	2D2	

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032378	19-181902	494 S OAKLAND AVE	CARRIE AND HOWARD SADLEN HOME	PASADENA	P	1907	HIST.SURV.	1109-0477-0000		7R	
138541		497 S OAKLAND AVE		PASADENA	P	1941	HIST.SURV.	1109-1932-0000	10/02/02	5S1	C
032379	19-181903	500 S OAKLAND AVE	FAY MORRIS HOUSE	PASADENA	P	1909	HIST.SURV.	1109-0478-0000		7R	
138542		515 S OAKLAND AVE		PASADENA	P	1947	HIST.SURV.	1109-1933-0000	10/02/02	6L	C
032380	19-181904	516 S OAKLAND AVE	C. P. MCCALLISTER, FRED HENDERSON	PASADENA	P	1909	HIST.SURV.	1109-0479-0000		7R	
032381	19-181905	520 S OAKLAND AVE	MARY AND FRANK JOHNSON HOME	PASADENA	P	1905	HIST.SURV.	1109-0480-0000		7R	
032375	19-181899	552 S OAKLAND AVE	H. METCALF HOME	PASADENA	P	1906	HIST.SURV.	1109-0475-0009		7R	
126599		1315 S OAKLAND AVE	HOUSE AT 1315 SOUTH OAKLAND AVENUE	PASADENA	P	1916	NAT.REG.	19-0362	12/05/00	7W	
139869		100 S ORANGE GROVE BLVD		PASADENA		1905	HIST.SURV.	1109-2090-0000		6L	
139870		100 S ORANGE GROVE BLVD		PASADENA			HIST.SURV.	1109-2091-0000		6L	
138550		155 S ORANGE GROVE BLVD		PASADENA	P	1950	HIST.SURV.	1109-1942-0000	10/02/02	5S1	C
139871		160 S ORANGE GROVE BLVD		PASADENA		1924	HIST.SURV.	1109-2092-0000		5S1	
139872		164 S ORANGE GROVE BLVD		PASADENA		1949	HIST.SURV.	1109-2093-0000		5S1	
139873		182 S ORANGE GROVE BLVD		PASADENA		1902	HIST.SURV.	1109-2094-0000		5S1	
139874		210 S ORANGE GROVE BLVD	J. A. RANKIN HOUSE / MEMORIAL HALL	PASADENA		1925	HIST.SURV.	1109-2095-0000		5S1	
139875		210 S ORANGE GROVE BLVD	MEMORIAL HALL GARDEN & REFLECTING	PASADENA		1965	HIST.SURV.	1109-2096-0000		5S1	
139876		250 S ORANGE GROVE BLVD		PASADENA		1910	HIST.SURV.	1109-2097-0000		6L	
139877		252 S ORANGE GROVE BLVD	DRAY HOUSE	PASADENA	P	1911	HIST.SURV.	1109-2098-0000		7R	
139878		260 S ORANGE GROVE BLVD	HUGH E. MONTGOMERY HOUSE	PASADENA		1909	HIST.SURV.	1109-2099-0000		7R	
139879		268 S ORANGE GROVE BLVD	DR. HENRY H. SHREK HOUSE	PASADENA		1892	HIST.SURV.	1109-2100-0000		3S	
031223	19-180516	280 S ORANGE GROVE BLVD	SCOFIELD HOUSE	PASADENA	P	1909	HIST.SURV.	1109-0276-0007	01/01/78	2D	
							HIST.SURV.	1109-0209-0001		3D	
031224	19-180517	281 S ORANGE GROVE BLVD	B F FITCH HOUSE	PASADENA	P	1893	HIST.SURV.	1109-0276-0008	01/01/78	2D	
031225	19-180518	297 S ORANGE GROVE BLVD	DENHAM HOUSE	PASADENA	P	1894	HIST.SURV.	1109-0276-0009	01/01/78	2D	
138552		305 S ORANGE GROVE BLVD	THE ORANGE GROVE	PASADENA	P	1958	HIST.SURV.	1109-1943-0000	10/02/02	7N1	C
031226	19-180519	310 S ORANGE GROVE BLVD	A C VOLK HOUSE	PASADENA	P	1919	HIST.SURV.	1109-0276-0010	01/01/78	2D	
							HIST.SURV.	1109-0209-0005		3D	
138553		400 S ORANGE GROVE BLVD		PASADENA	P	1955	HIST.SURV.	1109-1944-0000	10/02/02	7N1	C
138554		452 S ORANGE GROVE BLVD		PASADENA	P	1961	HIST.SURV.	1109-1945-0000	10/02/02	7N1	C
138555		453 S ORANGE GROVE BLVD		PASADENA	P	1962	HIST.SURV.	1109-1946-0000	10/02/02	6L	C
138556		481 S ORANGE GROVE BLVD		PASADENA	P	1959	HIST.SURV.	1109-1947-0000	10/02/02	7N1	C
138557		537 S ORANGE GROVE BLVD		PASADENA	P	1951	HIST.SURV.	1109-1948-0000	10/02/02	6L	C
138558		660 S ORANGE GROVE BLVD	CAPRI AIRE APARTMENTS	PASADENA	P	1951	HIST.SURV.	1109-1949-0000	10/02/02	3S	C
138560		681 S ORANGE GROVE BLVD	VIRGINIA MANOR APARTMENTS	PASADENA	P	1959	HIST.SURV.	1109-1950-0000	10/02/02	7N1	C
138561		707 S ORANGE GROVE BLVD		PASADENA	P	1950	HIST.SURV.	1109-1951-0000	10/02/02	3S	C
138562		747 S ORANGE GROVE BLVD		PASADENA	P	1957	HIST.SURV.	1109-1952-0000	10/02/02	7N1	C
138563		800 S ORANGE GROVE BLVD		PASADENA	P	1956	HIST.SURV.	1109-1953-0000	10/02/02	7N1	C
138564		833 S ORANGE GROVE BLVD	THE BELLGROVE APARTMENTS	PASADENA	P	1956	HIST.SURV.	1109-1954-0000	10/02/02	7N1	C
138565		924 S ORANGE GROVE BLVD	GROSVENOR SQUARE	PASADENA	P	1954	HIST.SURV.	1109-1955-0000	10/02/02	7N1	C
138567		945 S ORANGE GROVE BLVD		PASADENA	P	1953	HIST.SURV.	1109-1956-0000	10/02/02	7N1	C
138543		1000 S ORANGE GROVE BLVD	ORANGE GROVE GARDENS	PASADENA	P	1957	HIST.SURV.	1109-1936-0000	10/02/02	7N1	C
138544		1021 S ORANGE GROVE BLVD		PASADENA	P	1952	HIST.SURV.	1109-1937-0000	10/02/02	3S	C
138545		1040 S ORANGE GROVE BLVD		PASADENA	P	1963	HIST.SURV.	1109-1938-0000	10/02/02	7N1	C
138546		1071 S ORANGE GROVE BLVD	THE CEORGIAN	PASADENA	P	1953	HIST.SURV.	1109-1939-0000	10/02/02	6L	
138547		1155 S ORANGE GROVE BLVD		PASADENA	P	1955	HIST.SURV.	1109-1940-0000	10/02/02	6L	C
138549		1187 S ORANGE GROVE BLVD	THE GARDEN GROVE	PASADENA	P	1960	HIST.SURV.	1109-1941-0000	10/02/02	7N1	C
030989	19-180284	S PASADENA AVE	MARKHAM HOUSE GATEPOST	PASADENA	M		HIST.SURV.	1109-0205-0031		5D2	
098544	19-184979	S PASADENA AVE	PASADENA AVENUE DISTRICT	PASADENA	SP	1886	HIST.RES.	DOE-19-83-0016-9999	03/21/83	2S2	AC
							PROJ.REVW.	FHWA830201A	02/28/83	2S2	AC
							HIST.SURV.	1109-0210-9999	01/01/77	3S	
+ 098913	19-185060	S PASADENA AVE	COOK, R SURGES, HOUSE	PASADENA	S	1912	HIST.RES.	DOE-19-83-0016-0104	11/20/95	2D2	
							PROJ.REVW.	FHWA830201A	03/07/95	7M	
+ 074753	19-183587	26 S PASADENA AVE		PASADENA	P	1902	HIST.RES.	NPS-83001200-0140	09/15/83	6X	
							HIST.SURV.	1109-1627-0166	09/15/83	6X	
							HIST.SURV.	1109-0091-0228	09/15/83	6X	
							HIST.RES.	DOE-19-80-0003-0228	04/15/80	2D	ABC

	PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
* +	030574	19-179882	30 S PASADENA AVE	TANNER'S AUTO LIVERY / SILVER BIRC	PASADENA	P	1919	HIST.RES.	NPS-83001200-0141	09/15/83	1D	ABC
								HIST.SURV.	1109-1627-0115	09/15/83	1D	
								HIST.SURV.	1109-0091-0036	01/01/83	1D	
								HIST.SURV.	1109-2167-0033	06/01/81	2D	ABC
+	073610	19-183551	32 S PASADENA AVE	SILVER BIRCHES BUILDING(TANNER MAR	PASADENA	P	0	HIST.RES.	DOE-19-80-0003-0036	04/15/80	2D	ABC
								TAX.CERT.	537.9-19-0039	09/29/83	2D3	
	031074	19-180369	372 S PASADENA AVE		PASADENA	P	1907	TAX.(NPS)	027283CA850363	09/29/83	2D3	
	070909	19-183429	380 S PASADENA AVE	STALHUTH HOUSE	PASADENA	P	1907	HIST.SURV.	1109-0208-0042		5D2	
	031027	19-180322	535 S PASADENA AVE	THE PARSONAGE	PASADENA	P	1910	HIST.SURV.	1109-1124-0000	06/19/91	7R	
	031028	19-180323	535 S PASADENA AVE	MILLIKAN RELIGIOUS EDUCATION	PASADENA	P	1956	HIST.SURV.	1109-0206-0002		5D2	
	031029	19-180324	535 S PASADENA AVE	CHAPEL	PASADENA	P	1954	HIST.SURV.	1109-0206-0003		7R	
	031030	19-180325	535 S PASADENA AVE	CHILDRENS HOUSE	PASADENA	P	1948	HIST.SURV.	1109-0206-0004		7R	
	031031	19-180326	535 S PASADENA AVE	NEIGHBORHOOD CHURCH PROPERTY	PASADENA	P	1901	HIST.SURV.	1109-0206-0005		7R	
	031026	19-180321	535 S PASADENA AVE	NEIGHBORHOOD HOUSE	PASADENA	P	1901	HIST.SURV.	1109-0206-9999		5S2	
								HIST.SURV.	1109-1148-0000	06/20/91	7R	
	030977	19-180272	595 S PASADENA AVE		PASADENA	P	1904	HIST.SURV.	1109-0206-0001		5D2	
	030988	19-180283	679 S PASADENA AVE	DRISCOLL HOUSE	PASADENA	P	1909	HIST.SURV.	1109-0205-0019		3D	
	030990	19-180285	737 S PASADENA AVE		PASADENA	P	1922	HIST.SURV.	1109-0205-0030		3D	
	030982	19-180277	763 S PASADENA AVE	MARKHAM HOUSE	PASADENA	P	1911	HIST.SURV.	1109-0205-0032		3D	
	030980	19-180275	765 S PASADENA AVE	PAGE HOUSE	PASADENA	P	1906	HIST.SURV.	1109-0205-0024		3D	
	139745		770 S PASADENA AVE		PASADENA	P	1920	HIST.SURV.	1109-0205-0022		3D	
	030978	19-180273	779 S PASADENA AVE	TOMPKINS HOUSE	PASADENA	P	1905	HIST.SURV.	1109-2067-0000		6L	
	030991	19-180286	801 S PASADENA AVE		PASADENA	P		HIST.SURV.	1109-0205-0020		3D	
	031093	19-180388	866 S PASADENA AVE	REV HIRAM HILL / ALONZO BEAL HOUSE	PASADENA	S	1887	HIST.RES.	1109-0205-0033		3D	
								PROJ.REVW.	DOE-19-83-0016-0001	11/20/95	2D2	AC
								HIST.SURV.	FHWA830201A	02/28/83	2D2	AC
	098545	19-184980	876 S PASADENA AVE	VARICK D. MARTIN/SARAH W. MARTIN	PASADENA	S	1924	HIST.RES.	1109-0210-0008		3D	
								PROJ.REVW.	DOE-19-83-0016-0002	11/20/95	2D2	AC
	098546	19-184981	888 S PASADENA AVE	J.S. MASON	PASADENA	S	1927	HIST.RES.	FHWA830201A	02/28/83	2D2	AC
								PROJ.REVW.	DOE-19-83-0016-0003	11/20/95	2D2	AC
	098547	19-184982	894 S PASADENA AVE	ALBERT ZIMMERMAN HOUSE	PASADENA	S	1903	HIST.RES.	FHWA830201A	02/28/83	2D2	AC
								PROJ.REVW.	DOE-19-83-0016-0004	11/20/95	2D2	AC
	098884	19-185059	900 S PASADENA AVE	HURLBUT STREET FIRE STATION #5	PASADENA	S	1909	HIST.RES.	FHWA830201A	02/28/83	2D2	AC
								PROJ.REVW.	DOE-19-83-0016-0103	11/20/95	2D2	
	031110	19-180405	910 S PASADENA AVE		PASADENA	S	1910	HIST.RES.	FHWA830201A	03/07/95	7M	
								PROJ.REVW.	DOE-19-83-0016-0005	03/31/83	2D2	AC
								HIST.SURV.	FHWA830201A	02/28/83	2D2	AC
	098548	19-184983	926 S PASADENA AVE		PASADENA	S	1950	HIST.RES.	1109-0210-0025		3D	
								PROJ.REVW.	DOE-19-83-0016-0006	03/31/83	6Y	AC
	098549	19-184984	936 S PASADENA AVE		PASADENA	S	1950	HIST.RES.	FHWA830201A	02/28/83	6Y	AC
								PROJ.REVW.	DOE-19-83-0016-0007	03/31/83	6Y	
	098550	19-184985	944 S PASADENA AVE		PASADENA	S	1950	HIST.RES.	FHWA830201A	02/28/83	6Y	
								PROJ.REVW.	DOE-19-83-0016-0008	03/31/83	6Y	
	098551	19-184986	956 S PASADENA AVE		PASADENA	S	1950	HIST.RES.	FHWA830201A	02/28/83	6Y	
								PROJ.REVW.	DOE-19-83-0016-0009	03/31/83	6Y	
	098552	19-184987	966 S PASADENA AVE		PASADENA	S	1950	HIST.RES.	FHWA830201A	02/28/83	6Y	
								PROJ.REVW.	DOE-19-83-0016-0010	03/31/83	6Y	
	031111	19-180406	1000 S PASADENA AVE	J. DURAND KENNETT	PASADENA	S	1921	HIST.RES.	FHWA830201A	02/28/83	6Y	
								PROJ.REVW.	DOE-19-83-0016-0011	11/20/95	2D2	AC
								HIST.SURV.	FHWA830201A	02/28/83	2D2	AC
	031112	19-180407	1030 S PASADENA AVE	F. J. KENNETT	PASADENA	S	1928	HIST.RES.	1109-0210-0026		3D	
								PROJ.REVW.	DOE-19-83-0016-0012	11/20/95	2D2	AC
								HIST.SURV.	FHWA830201A	02/28/83	6Y	AC
	031090	19-180385	1031 S PASADENA AVE		PASADENA	P		HIST.RES.	1109-0210-0027		3D	
								PROJ.REVW.	DOE-19-83-0016-0013	03/31/83	6Y	AC
									FHWA830201A	02/28/83	6Y	AC

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030681	19-179985	164 S RAYMOND AVE	HOTEL GREEN, HEAT AND LIGHT PLANT,	PASADENA	P	1897	HIST.RES.	NPS-83001200-0191	09/15/83	1D	ABC
							HIST.SURV.	1109-1627-0148	09/15/83	1D	
							HIST.SURV.	1109-0091-0150	01/01/83	1D	
							HIST.RES.	DOE-19-80-0003-0150	04/15/80	2D	ABC
030682	19-179986	182 S RAYMOND AVE	THE WILKINSON BUILDING / CASABLANC	PASADENA	P	1922	HIST.RES.	NPS-83001200-0190	09/15/83	1D	ABC
							HIST.SURV.	1109-1627-0147	09/15/83	1D	
							HIST.SURV.	1109-0091-0151	01/01/83	1D	
							HIST.RES.	DOE-19-80-0003-0151	04/15/80	2D	ABC
030683	19-179987	222 S RAYMOND AVE	SANTA FE STATION / AMTRAK RAIL PAS	PASADENA	P	1935	TAX.CERT.	537.9-19-0329	05/14/04	7J	
							HIST.RES.	NPS-83001200-0188	09/15/83	1D	ABC
							HIST.SURV.	1109-1627-0145	09/15/83	1D	
							HIST.SURV.	1109-0091-0152	01/01/83	1D	
							HIST.RES.	DOE-19-80-0003-0152	04/15/80	2D	ABC
070864	19-183405	335 S RAYMOND AVE	BRADENS CALIFORNIA PRODUCTS INCORP	PASADENA	P	1925	HIST.SURV.	1109-1096-0000	06/19/91	6X	
070866	19-183406	360 S RAYMOND AVE	PASADENA BRICK & TILE SUPPLY COMPA	PASADENA	P	1925	HIST.SURV.	1109-1097-0000	06/19/91	6X	
070867	19-183407	361 S RAYMOND AVE	PASADENA HUMANE SOCIETY	PASADENA	P	1930	HIST.SURV.	1109-1098-0000	06/19/91	3S	
065924	19-183190	412 S RAYMOND AVE	TRANSI HOUSING	PASADENA	U		PROJ.REVW.	HUD890313G	06/21/89	6Y	
* † 070869	19-183408	443 S RAYMOND AVE	ROYAL LAUNDRY/ MILUS TEXTILE SERVI	PASADENA	P	1926	HIST.RES.	NPS-07000996-0000	09/27/07	1S	C
							NAT.REG.	19-0496	04/30/07	3S	C
							TAX.CERT.	537.9-19-0237	06/28/00	2S3	
							HIST.SURV.	1109-1099-0000	06/19/91	3S	
070871	19-183409	597 S RAYMOND AVE	RITZMAN HOUSE	PASADENA	P	1894	HIST.SURV.	1109-2059-0003		3D	
							HIST.SURV.	1109-1100-0000	06/19/91	5S1	
139744		665 S RAYMOND AVE		PASADENA	P	1927	HIST.SURV.	1109-2066-0000		6L	
087772	19-184740	673 S RAYMOND AVE	A C RIDDLER & SON CLEANERS & DYERS	PASADENA	P	1924	HIST.SURV.	1109-1595-0000	07/01/90	7R	
139747		766 S RAYMOND AVE		PASADENA	P	1925	HIST.SURV.	1109-2069-0000		7R	
139749		801 S RAYMOND AVE		PASADENA	P	1946	HIST.SURV.	1109-2070-0000		7R	
139751		888 S RAYMOND AVE		PASADENA		1951	HIST.SURV.	1109-2071-0000		7R	
139752		950 S RAYMOND AVE		PASADENA		1944	HIST.SURV.	1109-2072-0000		7R	
139753		959 S RAYMOND AVE		PASADENA	P	1945	HIST.SURV.	1109-2073-0000		5S1	
030791	19-180086	800 S SAN RAFAEL LANE	VILLA VERDE	PASADENA	P	1927	HIST.RES.	NPS-84000896-0000	09/13/84	1S	
							HIST.SURV.	1109-0134-0000	01/01/84	1S	
070487	19-183295	25 S SUNNYSLOPE AVE		PASADENA	P	1924	HIST.SURV.	1109-1077-0026	06/13/91	5D1	
070505	19-183304	36 S SUNNYSLOPE AVE		PASADENA	P	1937	HIST.SURV.	1109-1077-0037	06/13/91	5D1	
070489	19-183296	37 S SUNNYSLOPE AVE		PASADENA	P	1952	HIST.SURV.	1109-1077-0027	06/13/91	5D1	
071958	19-183517	39 S SUNNYSLOPE AVE		PASADENA	P	1952	HIST.SURV.	1109-1077-0028	06/25/91	5D1	
070507	19-183305	42 S SUNNYSLOPE AVE		PASADENA	P	1959	HIST.SURV.	1109-1077-0038	06/13/91	5D1	
071962	19-183519	44 S SUNNYSLOPE AVE		PASADENA	P	1926	HIST.SURV.	1109-1077-0039	06/25/91	5D1	
070509	19-183306	52 S SUNNYSLOPE AVE		PASADENA	P	1926	HIST.SURV.	1109-1077-0040	06/13/91	5D1	
070491	19-183297	61 S SUNNYSLOPE AVE		PASADENA	P	1940	HIST.SURV.	1109-1077-0030	06/13/91	5D1	
070511	19-183307	62 S SUNNYSLOPE AVE		PASADENA	P	1926	HIST.SURV.	1109-1077-0041	06/13/91	5D1	
070493	19-183298	67 S SUNNYSLOPE AVE		PASADENA	P	1927	HIST.SURV.	1109-1077-0031	06/13/91	5D1	
070513	19-183308	70 S SUNNYSLOPE AVE		PASADENA	P	1926	HIST.SURV.	1109-1077-0042	06/13/91	5D1	
070495	19-183299	75 S SUNNYSLOPE AVE		PASADENA	P	1936	HIST.SURV.	1109-1077-0032	06/13/91	5D1	
070514	19-183309	80 S SUNNYSLOPE AVE		PASADENA	P	1965	HIST.SURV.	1109-1077-0043	06/13/91	7R	
070497	19-183300	85 S SUNNYSLOPE AVE		PASADENA	P	1936	HIST.SURV.	1109-1077-0033	06/13/91	5D1	
070516	19-183310	86 S SUNNYSLOPE AVE		PASADENA	P	1926	HIST.SURV.	1109-1077-0044	06/13/91	5D1	
070499	19-183301	89 S SUNNYSLOPE AVE		PASADENA	P	1947	HIST.SURV.	1109-1077-0034	06/13/91	5D1	
070518	19-183311	92 S SUNNYSLOPE AVE		PASADENA	P	1928	HIST.SURV.	1109-1077-0045	06/13/91	5D1	
070520	19-183312	100 S SUNNYSLOPE AVE		PASADENA	P	1937	HIST.SURV.	1109-1077-0046	06/13/91	5D1	
070501	19-183302	101 S SUNNYSLOPE AVE		PASADENA	P	1946	HIST.SURV.	1109-1077-0035	06/13/91	5D1	
071964	19-183520	102 S SUNNYSLOPE AVE		PASADENA	P	1960	HIST.SURV.	1109-1077-0047	06/25/91	5D1	
070503	19-183303	109 S SUNNYSLOPE AVE		PASADENA	P	1946	HIST.SURV.	1109-1077-0036	06/13/91	5D1	
070522	19-183313	110 S SUNNYSLOPE AVE		PASADENA	P	1927	HIST.SURV.	1109-1077-0048	06/13/91	5D1	
070524	19-183314	116 S SUNNYSLOPE AVE		PASADENA	P	1947	HIST.SURV.	1109-1077-0049	06/13/91	5D1	
138588		145 S WILSON AVE		PASADENA	P	1923	HIST.SURV.	1109-1980-0000	10/02/02	6L	C

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
070803	19-183372	918 TOPEKA ST		PASADENA	P	1924	HIST.SURV.	1109-1078-0032	06/19/91	7R	
070815	19-183378	925 TOPEKA ST		PASADENA	P	1916	HIST.SURV.	1109-1078-0038	06/19/91	7R	
070807	19-183374	928 TOPEKA ST		PASADENA	P	1952	HIST.SURV.	1109-1078-0034	06/19/91	7R	
070805	19-183373	930 TOPEKA ST		PASADENA	P	1924	HIST.SURV.	1109-1078-0033	06/19/91	7R	
070809	19-183375	934 TOPEKA ST		PASADENA	P	1941	HIST.SURV.	1109-1078-0035	06/19/91	7R	
070813	19-183377	935 TOPEKA ST		PASADENA	P	1915	HIST.SURV.	1109-1078-0037	06/19/91	7R	
070811	19-183376	938 TOPEKA ST		PASADENA	P	1941	HIST.SURV.	1109-1078-0036	06/19/91	7R	
087109	19-184423	397 TOWNSEND PL		PASADENA	P	1914	HIST.SURV.	1109-1320-0032	07/31/93	3D	C
086860	19-184219	398 TOWNSEND PL		PASADENA	P	1895	HIST.SURV.	1109-1239-0000	07/31/93	6L	
030855	19-180150	192 VILLA ST	JENNIE BURTON HOUSE, BENNETT HOUSE	PASADENA	P	1910	HIST.SURV.	1109-0151-0008		7N	
031076	19-180371	W BELLEVUE DR	W BELLEVUE DRIVE DISTRICT	PASADENA	P	1894	HIST.SURV.	1109-0208-9999		5S2	
031078	19-180373	29 W BELLEVUE DR		PASADENA	P	0	HIST.SURV.	1109-1132-0000	06/19/91	7R	
031063	19-180358	31 W BELLEVUE DR		PASADENA	P	1894	HIST.SURV.	1109-1131-0000	06/19/91	7R	
							HIST.SURV.	1109-0208-0031		5D2	
031064	19-180359	41 W BELLEVUE DR		PASADENA	P	1894	HIST.SURV.	1109-1130-0000	06/19/91	7R	
							HIST.SURV.	1109-0208-0032		5D2	
031053	19-180348	42 W BELLEVUE DR		PASADENA	P	1894	HIST.SURV.	1109-0208-0021		5D2	
031065	19-180360	47 W BELLEVUE DR		PASADENA	P	1923	HIST.SURV.	1109-0208-0033		5D2	
031077	19-180372	49 W BELLEVUE DR	MORRIS HOUSE	PASADENA	P	1924	HIST.SURV.	1109-1129-0000	06/19/91	7R	
031054	19-180349	50 W BELLEVUE DR		PASADENA	P	1918	HIST.SURV.	1109-0208-0022		5D2	
031055	19-180350	60 W BELLEVUE DR		PASADENA	P	1921	HIST.SURV.	1109-0208-0023		5D2	
031056	19-180351	66 W BELLEVUE DR		PASADENA	P	1922	HIST.SURV.	1109-0208-0024		5D2	
031066	19-180361	73 W BELLEVUE DR		PASADENA	P	1906	HIST.SURV.	1109-0208-0034		5D2	
031057	19-180352	78 W BELLEVUE DR		PASADENA	P	1905	HIST.SURV.	1109-0208-0025		5D2	
031058	19-180353	82 W BELLEVUE DR		PASADENA	P	1905	HIST.SURV.	1109-0208-0026		5D2	
031059	19-180354	92 W BELLEVUE DR		PASADENA	P	1894	HIST.SURV.	1109-1128-0000	06/19/91	7R	
							HIST.SURV.	1109-0208-0027		5D2	
031032	19-180327	97 W BELLEVUE DR	WOOD/TAYLOR HOUSE	PASADENA	P	1893	HIST.SURV.	1109-1127-0000	06/19/91	7R	
							HIST.SURV.	1109-0207-0000		3S	
031067	19-180362	103 W BELLEVUE DR		PASADENA	P	1902	HIST.SURV.	1109-0208-0035		5D2	
031060	19-180355	106 W BELLEVUE DR		PASADENA	P	1894	HIST.SURV.	1109-0208-0028		5D2	
031061	19 180356	112 W BELLEVUE DR		PASADENA	P	1894	HIST.SURV.	1109-0208-0029		5D2	
031062	19-180357	122 W BELLEVUE DR		PASADENA	P	1894	HIST.SURV.	1109-0208-0030		5D2	
031068	19-180363	127 W BELLEVUE DR		PASADENA	P	1917	HIST.SURV.	1109-0208-0036		5D2	
031069	19-180364	135 W BELLEVUE DR		PASADENA	P	1926	HIST.SURV.	1109-1126-0000	06/19/91	7R	
							HIST.SURV.	1109-0208-0037		5D2	
070911	19-183430	162 W BELLEVUE DR		PASADENA	P	1926	HIST.SURV.	1109-1125-0000	06/19/91	7R	
030787	19-180082	365 W BELLEVUE DR	RHODES HOUSE	PASADENA	P	1906	HIST.SURV.	1109-0130-0000	01/01/77	3S	
							HIST.RES.	DOE-19-77-0002-0000	12/21/77	2S2	C
070774	19-183353	17 W CALIFORNIA BLVD	DIET CENTER,NAIL FANTASY	PASADENA	P	1927	HIST.SURV.	1109-1085-0000	06/19/91	7N1	
070790	19-183362	25 W CALIFORNIA BLVD		PASADENA	P	1925	HIST.SURV.	1109-1086-0000	06/19/91	6X	
139739		100 W CALIFORNIA BLVD	HUNTINGTON MEMORIAL HOSPITAL GATES	PASADENA		1914	HIST.SURV.	1109-2060-0000		3S	
030986	19-180281	202 W CALIFORNIA BLVD	MRS. A. E. MACY HOUSE	PASADENA	P	1906	HIST.SURV.	1109-0205-0028		3D	
030973	19-180268	206 W CALIFORNIA BLVD		PASADENA	P	1926	HIST.SURV.	1109-1834-0000	10/02/02	3S	C
							HIST.SURV.	1109-0205-0015		3D	
138478		225 W CALIFORNIA BLVD		PASADENA	P	1948	HIST.SURV.	1109-1835-0000	10/02/02	5S2	C
138479		285 W CALIFORNIA BLVD	CASA CALIFORNIA APARTMENTS	PASADENA	P	1928	HIST.SURV.	1109-1836-0000	10/02/02	3S	C
138480		295 W CALIFORNIA BLVD		PASADENA	P	1954	HIST.SURV.	1109-1837-0000	10/02/02	5S2	C
138481		310 W CALIFORNIA BLVD		PASADENA	P	1949	HIST.SURV.	1109-1838-0000	10/02/02	5S2	C
073898	19-183567	339 W CALIFORNIA BLVD		PASADENA	P	1927	HIST.SURV.	1109-1839-0000	10/02/02	3S	C
							TAX.(NPS)	027483CA	07/08/83	2D3	
138482		365 W CALIFORNIA BLVD		PASADENA	P	1947	HIST.SURV.	1109-1840-0000	10/02/02	3S	C
138483		460 W CALIFORNIA BLVD		PASADENA	P	1920	HIST.SURV.	1109-1841-0000	10/02/02	5S2	C
128018		W COLORADO BLVD	WEST COLORADO BOULEVARD GROUPING	PASADENA	P		HIST.RES.	DOE-19-80-0003-0240	04/15/80	2S	ABC
							PROJ.REVW.		04/15/80	2S	ABC
030624	19-179929	W COLORADO BLVD	SYNDICATE/MARTIAN/FRAIER ALLEY	PASADENA	P	1978	HIST.SURV.	1109-0091-0086	01/01/83	1D	

Appendix C-2

Cultural Resources (Archaeo-Paleo Results)

STATE OF CALIFORNIA Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
e-mail: ds_nahc@pacbell.net

November 3, 2008

Mr. Matthew Gonzalez, Archaeological/Paleontological Technician
PCR SERVICES CORPORATION
233 Wilshire Boulevard, Suite 130
Santa Monica, CA 90401

Sent by FAX: 310-451-5279
No. of Pages: 2

Re: Request for a Sacred Lands File records search and Native American Contacts list for the proposed **CAL FAIR OAKS PROJECT**; located in the City of Pasadena; Los Angeles County, California

Dear Mr. Gonzalez:

The Native American Heritage Commission was able to perform a record search of its Sacred Lands File (SLF) for the affected project area/area of potential effect (APE). The SLF failed to indicate the presence of Native American cultural resources in the immediate project area (APE). The absence of specific site information in the Sacred Lands File does not guarantee the absence of cultural resources in any project area.

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Enclosed are the names of culturally-affiliated Native American Contacts that may have knowledge of cultural resources in the project area. A list of Native American contacts is attached to assist you. It is advisable to contact the persons listed; if they cannot supply you with specific information about the impact on cultural resources, they may be able to refer you to another tribe or person knowledgeable of the cultural resources in or near the affected project area. A local tribe or Native American individual may be the only source of a Native American cultural resource.

Lead agencies should consider avoidance, as defined in Section 15370 of the California Environmental Quality Act (CEQA) when significant cultural resources could be affected by a project. Also, Public Resources Code Section 15064.5(f) and Section 15097.98 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery. Discussion of these should be included in your environmental documents, as appropriate.

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,

Dave Singleton
Program Analyst

Attachment: Native American Contact List

Native American Contacts
Los Angeles County
November 3, 2008

Ti'At Society
Cindi Alvitre
6515 E. Seaside Walk, #C Gabrielino
Long Beach , CA 90803
calvitre@yahoo.com
(714) 504-2468 Cell

Gabrielino Tongva Indians of California Tribal Council
Robert Dorame, Tribal Chair/Cultural Resources
P.O. Box 490 Gabrielino Tongva
Bellflower , CA 90707
gtongva@verizon.net
562-761-6417 - voice
562-925-7989 - fax

Tongva Ancestral Territorial Tribal Nation
John Tommy Rosas, Tribal Admin.
, Gabrielino Tongva
tattnlaw@gmail.com
310-570-6567

Gabrieleno/Tongva San Gabriel Band of Mission
Anthony Morales, Chairperson
PO Box 693 Gabrielino Tongva
San Gabriel , CA 91778
ChiefRBwife@aol.com
(626) 286-1632
(626) 286-1758 - Home
(626) 286-1262 Fax

Gabrielino/Tongva Council / Gabrielino Tongva Nation
Sam Dunlap, Tribal Secretary
761 Terminal Street; Bldg 1, 2nd floor Gabrielino Tongva
Los Angeles , CA 90021
office @tongvatribe.net
(213) 489-5001 - Office
(909) 262-9351 - cell
(213) 489-5002 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed CAL FAIR OAKS PROJECT; located in the City of Pasadena; Los Angeles County, California for which a Sacred Lands File search and Native American Contacts list were requeted.

Natural History Museum of Los Angeles County
900 Exposition Boulevard • Los Angeles, CA 90007

Vertebrate Paleontology Section
Telephone: (213) 763-3325
FAX: (213) 746-7431
e-mail: smcleod@nhm.org

29 October 2008

Planning Consultants Research
233 Wilshire Boulevard, Suite 130
Santa Monica, CA 90401

Attn: Matthew Gonzalez, Archaeological / Paleontological Technician

re: Paleontological Records Search for the proposed Cal Fair Oaks Project, in Pasadena, Los Angeles County, project area

Dear Matthew:

I have conducted a thorough search of our Vertebrate Paleontology records for the proposed Cal Fair Oaks Project, in Pasadena, Los Angeles County, project area as outlined on the portion of the Pasadena USGS topographic quadrangle map that you sent to me via e-mail on 27 October 2008. We have no vertebrate fossil localities that lie directly within the proposed project area, but we do have localities nearby from the same or similar sedimentary deposits as probably occur subsurface within the proposed project area.

The entire proposed project area has surficial deposits composed of younger Quaternary Alluvium, derived either as fan deposits from the mountains to the northwest and north or as fluvial deposits from the Arroyo Seco drainage immediately to the west. These deposits typically do not contain significant vertebrate fossils, at least in the uppermost layers. At unknown, but possibly relatively shallow, depths in the proposed project area, however, there are deposits of older Quaternary Alluvium as these deposits occur immediately to the east and west of the proposed project area. Our closest vertebrate fossil locality in these older Quaternary deposits is LACM (CIT) 342, just south of west of the proposed project area east of the Pasadena Freeway (I-110) and Eagle Rock Boulevard just south of York Boulevard, that produced fossil specimens of turkey, *Parapavo californicus*, and mammoth, *Mammuthus*, at a depth of 14 feet below the surface. The fossil turkey specimen from locality LACM (CIT) 342 was published in the scientific literature by L.H. Miller in 1942 (A New Fossil Bird Locality. Condor, 44(6):283-284) and the mammoth specimen was a rare, nearly complete skeleton and was published in the scientific literature by V.L. Roth in 1984 (How Elephants Grow: Heterochrony and the Calibration of Developmental Stages in Some Living and Fossil Species. Journal of Vertebrate Paleontology, 4(1):126-145).

Surface grading or very shallow excavations in the younger Quaternary Alluvium exposed in the proposed project area probably will not uncover significant vertebrate fossil remains. Deeper excavations that extend into older Quaternary deposits, however, may well encounter significant fossil vertebrate specimens. Therefore, any substantial excavations in the proposed project area should be monitored closely to quickly and professionally recover any fossil remains discovered while not impeding development. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

This records search covers only the vertebrate paleontology records of the Natural History Museum of Los Angeles County. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Sincerely,

Samuel A. McLeod

Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosure: draft invoice

FOUNDATION INVOICE
NATURAL HISTORY MUSEUM OF LOS ANGELES COUNTY

900 Exposition Boulevard, Los Angeles, California 90007

29 October 2008

INVOICE TO:

Planning Consultants Research
233 Wilshire Boulevard, Suite 130
Santa Monica, CA 90401

Attn: Matthew Gonzalez, Archaeological / Paleontological Technician

Expedited Vertebrate Paleontology Records Search for the proposed Cal Fair Oaks Project, in Pasadena, Los Angeles County, project area

AMOUNT DUE: $ 250.00

Paleontology Account #164-000 - invoice # VP081029B

PLEASE RETURN THIS STUB WITH YOUR REMITTANCE

This is a draft invoice for your information

The official invoice will be sent separately by the Natural History Museum of Los Angeles County Finance Department

South Central Coastal Information Center
California State University, Fullerton
Department of Anthropology MH-426
800 North State College Boulevard
Fullerton, CA 92834-6846
714.278.5395 / FAX 714.278.5542
anthro.fullerton.edu/sccic.html - sccic@fullerton.edu
California Historical Resources Information System
Orange, Los Angeles, and Ventura Counties

September 8, 2008 SCCIC #8820.5799

Ms. Amanda Kainer
PCR Services Corporation
233 Wilshire Blvd, Suite 130
Santa Monica, CA 90401
310.451.4488

RE: Records Search for the Pasadena – Cal Fair Oaks Project

Dear Ms. Kainer,

As per your request received on August 18, 2008, a records search was conducted for the above referenced project. The search includes a review of all recorded archaeological sites within a ¼-mile radius of the project site as well as a review of cultural resource reports on file. In addition, the California Points of Historical Interest (PHI), the California Historical Landmarks (CHL), the California Register of Historical Resources (CR), the National Register of Historic Places (NR), and the California State Historic Resources Inventory (HRI) listings were reviewed for the above referenced project. The following is a discussion of the findings.

Pasadena, CA. USGS 7.5′ Quadrangle

ARCHAEOLOGICAL RESOURCES:

No archaeological sites have been identified within a ¼-mile radius of the project site. No archaeological sites are located within the project site. No sites are listed on the Archaeological Determination of Eligibility (DOE) list. No isolates have been identified within a ¼-mile radius of the project site. No isolates are located within the project site.

HISTORIC RESOURCES:

One additional cultural resource (19-183407) has been identified within a ¼-mile radius of the project site. No cultural resources are located within the project site.

Copies of our historic maps - Pasadena (1896, and 1900) 15′ USGS - are enclosed for your review.

✓ The California Point of Historical Interest of the Office of Historic Preservation, Department of Parks and Recreation, lists no properties within a ¼-mile radius of the project site.

✓ The California Historical Landmarks of the Office of Historic Preservation, Department of Parks and Recreation, lists no properties within a ¼-mile radius of the project site.

✓ The California Register of Historic Places lists no properties within a ¼-mile radius of the project site (see enclosed HRI list for properties marked with a +). These are properties determined to have a National Register of Historic Places Status of 1 or 2, a California Historical Landmark numbering 770 and higher, or a Point of Historical Interest listed after 1/1/1998.

✓ The National Register of Historic Places lists 28 properties within a ¼-mile radius of the project site (see enclosed HRI list for properties marked with an *).

✓ The California Historic Resources Inventory lists 207 properties that have been evaluated for historical significance within a ¼-mile radius of the project site (see enclosed HRI list).

PREVIOUS CULTURAL RESOURCES INVESTIGATIONS:

Eight studies (LA115, LA4359, LA4386, LA4909, LA5237, LA7918, LA9139, and LA9163) have been conducted within a ¼-mile radius of the project site. Of these, none are located within the project site. There are 18 additional investigations located on the Pasadena, CA. 7.5' USGS Quadrangle that are potentially within a ¼-mile radius of the project site. These reports are not mapped due to insufficient locational information.

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you **do not include** resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at 714.278.5395 Monday through Thursday 9:00 am to 3:30 pm.

Should you require any additional information for the above referenced project, reference the SCCIC number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Sincerely,
SCCIC

Michelle Galaz
Staff Researcher

Gabrielino Tongva Nation

A California Tribal Sovereign

Post Office Box 86908 - Los Angeles, CA 90086

February 15, 2009

Matthew Gonzalez
PCR
233 Wilshire Blvd., Ste. 130
Santa Monica, CA 90401

Re: Native American Consultation - Cal Fair Oaks Project
City of Pasadena, Los Angeles County, CA

Dear Mr. Gonzalez,

This letter is in response to your request for tribal consultation regarding the proposed Cal Fair Oaks Project located in the City of Pasadena, Los Angeles County, CA. Since the project area is within the traditional tribal territory of the Gabrielino Tongva Nation it is my responsibility to respond with the concern that the project as described may have the potential to create an environmental impact to the cultural resources of our tribe.

The proposed Cal Fair Oaks Project is within 5000 feet of the existing Arroyo Seco River. Although natural waterways were channelized to accommodate industrial and urban expansion it is my concern that the project area is still in the vicinity of a prehistoric habitation and food resource such as the Arroyo Seco River. For this reason I would suggest that the project area has an increased potential to contain buried archaeological deposits. The Cal Fair Oaks Project is within 8500 feet of a Native American burial location (southwest of project area).

Additionally, previously developed areas as described in your correspondence does not eliminate the presence of archaeological deposits since past construction practices in older industrial and urban areas did not afford adequate protection to identify and protect the cultural resources of the Gabrielino Tongva Nation. I recommend that an archaeological and Native American monitoring component be a necessary mitigation measure during the construction phase of the proposed project. I also request that consideration be given that the Native American monitors be selected from the Gabrielino Tongva Nation.

I look forward to corresponding with you on cultural resource issues and matters of environmental compliance. Please feel free to contact me at any time.

Sincerely,

Sam Dunlap - Tribal Secretary
(909) 262-9351 cell
samdunlap@earthlink.net

Memorandum

TO: PCR Project Team **DATE:** February 26, 2009
CC: City of Pasadena
FROM: Kyle Garcia, Archaeologist
RE: **SAM DUNLAP FOLLOW-UP PHONE CALL FOR THE PROPOSED CAL FAIR OAKS PROJECT**

On February 26, 2009, 2:00PM, I, Kyle Garcia, contacted Sam Dunlap, Tribal Secretary of the Gabrielino Tongva Nation, via phone to discuss his response letter (dated February 15, 2009) regarding his concerns with the proposed Cal Fair Oaks project in Pasadena, California. I mentioned to Mr. Dunlap that we had not recommended archaeological or Native American monitoring during ground-disturbing activities associated with the project given the heavily disturbed context of the project site and the low potential to encounter buried resources as a result of this. I also mentioned that no resources had been identified within the record search from the CHRIS-SCCIC. I let him know that I was not going to recommend archaeological or Native American monitoring as a mitigation measure in the EIR. However, I explained to Mr. Dunlap that I would incorporate his recommendations into the EIR and that the Lead Agency would make a final decision regarding the recommendations for archaeological and Native American monitoring.

Appendix D

Noise Worksheets

Cal Fair Oaks Office Building Project
Draft EIR

Noise Worksheets

Provided by PCR Services Corporation

February 2009

C-1 Construction Noise Calculations

C-2 Off-Site Traffic Noise Calculations

Appendix C-1

- Construction Noise Calculations

Project: CAL FAIR OAKS OFFICE BUILDING

Construction Phase: **Phase 1**
Demolition

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Rubber Tired Loader	1	79	40%	450	5
Backhoe	1	78	40%	450	5
BobCat	1	78	40%	450	5
Dump/Haul Trucks	1	76	40%	450	5

Receptor: ***R2***

Results:

Leq: **56**

Source for Ref. Noise Levels: FHWA RCNM, 2005

Project: CAL FAIR OAKS OFFICE BUILDING

Construction Phase: **Phase 2**
Site Grading

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
BobCat	1	78	40%	450	5
Excavator	1	81	40%	450	5
Backhoe	1	79	40%	450	5
Grader	1	85	40%	450	5
Dump/Haul Trucks	1	76	40%	450	5

Receptor: ***R2***

Results:

Leq: **60**

Source for Ref. Noise Levels: FHWA RCNM, 2005

Project: CAL FAIR OAKS OFFICE BUILDING

Construction Phase: **Phase 3**
Building Construction

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	450	5
Crane	1	81	16%	450	5
Forklifts	1	75	50%	450	5
Backhoe	1	79	40%	450	5
Rollers	1	80	20%	450	5

Receptor: ***R2***

Results:

Leq: **57**

Source for Ref. Noise Levels: FHWA RCNM, 2005

Project: CAL FAIR OAKS OFFICE BUILDING

Construction Phase: **Phase 1**
Demolition

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Rubber Tired Loader	1	79	40%	500	10
Backhoe	1	78	40%	500	10
BobCat	1	78	40%	500	10
Dump/Haul Trucks	1	76	40%	500	10

Receptor: ***R3***

Results:

Leq: **50**

Source for Ref. Noise Levels: FHWA RCNM, 2005

Project: CAL FAIR OAKS OFFICE BUILDING

Construction Phase: **Phase 2**
Site Grading

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
BobCat	1	78	40%	500	10
Excavator	1	81	40%	500	10
Backhoe	1	79	40%	500	10
Grader	1	85	40%	500	10
Dump/Haul Trucks	1	76	40%	500	10

Receptor: ***R3***

Results:

Leq: **54**

Source for Ref. Noise Levels: FHWA RCNM, 2005

Project: CAL FAIR OAKS OFFICE BUILDING

Construction Phase: **Phase 3**
Building Construction

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	500	10
Crane	1	81	16%	500	10
Forklifts	1	75	50%	500	10
Backhoe	1	79	40%	500	10
Rollers	1	80	20%	500	10

Receptor: ***R3***

Results:

Leq: **51**

Source for Ref. Noise Levels: FHWA RCNM, 2005

Project: CAL FAIR OAKS OFFICE BUILDING

Construction Phase: **Phase 1**
Demolition

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Rubber Tired Loader	1	79	40%	900	10
Backhoe	1	78	40%	900	10
BobCat	1	78	40%	900	10
Dump/Haul Trucks	1	76	40%	900	10

Receptor: ***R4***

Results:

Leq: **45**

Source for Ref. Noise Levels: FHWA RCNM, 2005

Project: CAL FAIR OAKS OFFICE BUILDING

Construction Phase: **Phase 2**
Site Grading

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
BobCat	1	78	40%	900	10
Excavator	1	81	40%	900	10
Backhoe	1	79	40%	900	10
Grader	1	85	40%	900	10
Dump/Haul Trucks	1	76	40%	900	10

Receptor: ***R4***

Results:

Leq: **49**

Source for Ref. Noise Levels: FHWA RCNM, 2005

Project: CAL FAIR OAKS OFFICE BUILDING

Construction Phase: **Phase 3**
Building Construction

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	900	10
Crane	1	81	16%	900	10
Forklifts	1	75	50%	900	10
Backhoe	1	79	40%	900	10
Rollers	1	80	20%	900	10

Receptor: ***R4***

Results:

Leq: **46**

Source for Ref. Noise Levels: FHWA RCNM, 2005

Appendix C-2

- Off-Site Traffic Noise Calculations

Project: CAL-FAIR OAKS OFFICE BUILDING

Existing										
	Speed	Traffic Volumes			Leq			CNEL		
Roadway/Segment	MPH	AM	PM	ADT	ROW	25 Feet	50 Feet	ROW	25 Feet	50 Feet
California Blvd. w/o St. John Ave.	25	824	1014	12675	65.9	62.9	61.2	65.8	62.8	61.1
California Blvd. between St. John Ave. and Pasadena Ave.	30	1483	1511	18881	69.2	66.2	64.5	69.1	66.2	64.4
California Blvd. between Pasadena Ave. and Fair Oaks Ave.	30	1736	1925	24056	68.7	66.4	64.9	68.6	66.3	64.9
California Blvd. between Fair Oaks Ave. and Raymond Ave.	30	1428	1653	20656	70.1	66.9	65.0	70.0	66.8	64.9
California Blvd. between Raymond Ave. and Arroyo Pkwy.	30	1493	1682	21025	70.2	66.9	65.1	70.1	66.9	65.0
Future No Project										
	Speed	Traffic Volumes			Leq			CNEL		
Roadway/Segment	MPH	AM	PM	ADT	ROW	25 Feet	50 Feet	ROW	25 Feet	50 Feet
California Blvd. w/o St. John Ave.	25	848	1044	13050	66.0	63.1	61.3	65.9	63.0	61.2
California Blvd. between St. John Ave. and Pasadena Ave.	30	1527	1556	19444	69.4	66.4	64.6	69.3	66.3	64.5
California Blvd. between Pasadena Ave. and Fair Oaks Ave.	30	1789	1983	24781	68.8	66.6	65.1	68.7	66.5	65.0
California Blvd. between Fair Oaks Ave. and Raymond Ave.	30	1470	1702	21275	70.2	67.0	65.2	70.1	66.9	65.1
California Blvd. between Raymond Ave. and Arroyo Pkwy.	30	1538	1732	21644	70.3	67.1	65.2	70.2	67.0	65.1
Future With Project										
	Speed	Traffic Volumes			Leq			CNEL		
Roadway/Segment	MPH	AM	PM	ADT	ROW	25 Feet	50 Feet	ROW	25 Feet	50 Feet
California Blvd. w/o St. John Ave.	25	848	1044	13050	66.0	63.1	61.3	65.9	63.0	61.2
California Blvd. between St. John Ave. and Pasadena Ave.	30	1540	1556	19444	69.4	66.4	64.6	69.3	66.3	64.5
California Blvd. between Pasadena Ave. and Fair Oaks Ave.	30	1802	1991	24881	68.8	66.6	65.1	68.8	66.5	65.0
California Blvd. between Fair Oaks Ave. and Raymond Ave.	30	1485	1724	21550	70.3	67.1	65.2	70.2	67.0	65.1
California Blvd. between Raymond Ave. and Arroyo Pkwy.	30	1565	1748	21850	70.3	67.1	65.3	70.3	67.0	65.2

CNEL

Summary	25 ft. from ROW		At ROW	
Roadway/Segment	Project Increment	Cumulative Increment	Project Increment	Cumulative Increment
California Blvd. w/o St. John Ave.	0.0	0.2	0.0	0.1
California Blvd. between St. John Ave. and Pasadena Ave.	0.0	0.1	0.0	0.2
California Blvd. between Pasadena Ave. and Fair Oaks Ave.	0.0	0.2	0.1	0.2
California Blvd. between Fair Oaks Ave. and Raymond Ave.	0.1	0.2	0.1	0.2
California Blvd. between Raymond Ave. and Arroyo Pkwy.	0.0	0.1	0.1	0.2

	% of ADT			
Vehicle Type	Day	Eve	Night	Sub total
Auto	82.5%	9.7%	4.9%	97.0%
Medium Truck	1.7%	0.2%	0.1%	2.0%
Heavy Truck	0.9%	0.1%	0.1%	1.0%
	85.0%	10.0%	5.0%	100.0%

Project: CAL-FAIR OAKS OFFICE BUILDING

Existing										
	Speed	**Traffic Volumes**			**Leq**			**CNEL**		
Roadway/Segment	**MPH**	**AM**	**PM**	**ADT**	**ROW**	**25 Feet**	**50 Feet**	**ROW**	**25 Feet**	**50 Feet**
Fair Oaks Ave. n/o Bel Mar Blvd.	35	1584	1844	23050	70.0	67.5	66.0	69.9	67.4	65.9
Fair Oaks Ave. between Del Mar Ave. and California Blvd.	30	1729	2079	25988	69.4	67.0	65.4	69.4	66.9	65.4
Fair Oaks Ave. between California Blvd. and Congress St.	35	2244	2517	31456	73.0	69.8	67.9	72.9	69.7	67.8
Fair Oaks Ave. between Congress St. and Glenarm St.	35	2321	2095	29013	71.0	68.5	67.0	70.9	68.4	66.9
Fair Oaks Ave. s/o Glenarm St.	35	2509	1980	31363	71.3	68.9	67.3	71.2	68.8	67.2
Future No Project										
	Speed	**Traffic Volumes**			**Leq**			**CNEL**		
Roadway/Segment	**MPH**	**AM**	**PM**	**ADT**	**ROW**	**25 Feet**	**50 Feet**	**ROW**	**25 Feet**	**50 Feet**
Fair Oaks Ave. n/o Bel Mar Blvd.	35	1771	2023	25288	70.4	67.9	66.4	70.3	67.9	66.3
Fair Oaks Ave. between Del Mar Ave. and California Blvd.	30	1889	2251	28131	69.8	67.3	65.8	69.7	67.3	65.7
Fair Oaks Ave. between California Blvd. and Congress St.	35	2420	2701	33763	73.3	70.1	68.2	73.2	70.0	68.1
Fair Oaks Ave. between Congress St. and Glenarm St.	35	2500	2781	34756	71.8	69.3	67.8	71.7	69.2	67.7
Fair Oaks Ave. s/o Glenarm St.	35	2860	3081	38513	72.2	69.8	68.2	72.1	69.7	68.1
Future With Project										
	Speed	**Traffic Volumes**			**Leq**			**CNEL**		
Roadway/Segment	**MPH**	**AM**	**PM**	**ADT**	**ROW**	**25 Feet**	**50 Feet**	**ROW**	**25 Feet**	**50 Feet**
Fair Oaks Ave. n/o Bel Mar Blvd.	35	1778	2027	25338	70.4	67.9	66.4	70.3	67.9	66.3
Fair Oaks Ave. between Del Mar Ave. and California Blvd.	30	1901	2258	28219	69.8	67.4	65.8	69.7	67.3	65.7
Fair Oaks Ave. between California Blvd. and Congress St.	35	2435	2708	33844	73.3	70.1	68.2	73.2	70.0	68.1
Fair Oaks Ave. between Congress St. and Glenarm St.	35	2527	2781	34763	71.8	69.3	67.8	71.7	69.2	67.7
Fair Oaks Ave. s/o Glenarm St.	35	2863	3083	38538	72.2	69.8	68.2	72.1	69.7	68.1

CNEL

Summary	**25 ft. from ROW**		**At ROW**	
Roadway/Segment	**Project Increment**	**Cumulative Increment**	**Project Increment**	**Cumulative Increment**
Fair Oaks Ave. n/o Bel Mar Blvd.	0.0	0.5	0.0	0.4
Fair Oaks Ave. between Del Mar Ave. and California Blvd.	0.0	0.4	0.0	0.3
Fair Oaks Ave. between California Blvd. and Congress St.	0.0	0.3	0.0	0.3
Fair Oaks Ave. between Congress St. and Glenarm St.	0.0	0.8	0.0	0.8
Fair Oaks Ave. s/o Glenarm St.	0.0	0.9	0.0	0.9

	% of ADT			
Vehicle Type	**Day**	**Eve**	**Night**	**Sub total**
Auto	82.5%	9.7%	4.9%	97.0%
Medium Truck	1.7%	0.2%	0.1%	2.0%
Heavy Truck	0.9%	0.1%	0.1%	1.0%
	85.0%	10.0%	5.0%	100.0%

Project: CAL-FAIR OAKS OFFICE BUILDING

Existing										
	Speed	**Traffic Volumes**			**Leq**			**CNEL**		
Roadway/Segment	**MPH**	**AM**	**PM**	**ADT**	**ROW**	**25 Feet**	**50 Feet**	**ROW**	**25 Feet**	**50 Feet**
California Blvd. e/o Arroyo Pkwy.	30	1696	1789	22363	70.4	67.2	65.4	70.4	67.1	65.3
Raymond Ave. n/o California Blvd.	30	485	848	10600	65.5	63.1	61.6	65.5	63.0	61.5
Raymond Ave. between California Blvd. and Pico St.	30	593	936	11700	66.0	63.5	62.0	65.9	63.4	61.9
Raymond Ave. s/o Pico St.	30	752	982	12275	66.2	63.7	62.2	66.1	63.7	62.1
Glenarm St. e/o Fair Oaks Ave.	25	688	1079	13488	65.5	62.9	61.2	65.4	62.8	61.1
Future No Project										
	Speed	**Traffic Volumes**			**Leq**			**CNEL**		
Roadway/Segment	**MPH**	**AM**	**PM**	**ADT**	**ROW**	**25 Feet**	**50 Feet**	**ROW**	**25 Feet**	**50 Feet**
California Blvd. e/o Arroyo Pkwy.	30	1747	1843	23038	68.9	66.5	64.9	68.8	66.4	64.8
Raymond Ave. n/o California Blvd.	30	499	874	10925	65.7	63.2	61.7	65.6	63.1	61.6
Raymond Ave. between California Blvd. and Pico St.	30	610	964	12050	67.8	64.5	62.7	67.7	64.4	62.6
Raymond Ave. s/o Pico St.	30	775	1011	12638	66.3	63.9	62.3	66.2	63.8	62.2
Glenarm St. e/o Fair Oaks Ave.	25	1039	1204	15050	66.0	63.3	61.7	65.9	63.2	61.6
Future With Project										
	Speed	**Traffic Volumes**			**Leq**			**CNEL**		
Roadway/Segment	**MPH**	**AM**	**PM**	**ADT**	**ROW**	**25 Feet**	**50 Feet**	**ROW**	**25 Feet**	**50 Feet**
California Blvd. e/o Arroyo Pkwy.	30	1758	1850	23125	68.9	66.5	64.9	68.8	66.4	64.9
Raymond Ave. n/o California Blvd.	30	516	883	11038	65.7	63.3	61.7	65.6	63.2	61.6
Raymond Ave. between California Blvd. and Pico St.	30	652	980	12250	67.8	64.6	62.8	67.7	64.5	62.7
Raymond Ave. s/o Pico St.	30	793	1037	12963	66.4	64.0	62.4	66.3	63.9	62.3
Glenarm St. e/o Fair Oaks Ave.	25	1055	1212	15150	66.0	63.4	61.7	65.9	63.3	61.6

CNEL

Summary	**25 ft. from ROW**		**At ROW**	
Roadway/Segment	**Project Increment**	**Cumulative Increment**	**Project Increment**	**Cumulative Increment**
California Blvd. e/o Arroyo Pkwy.	0.0	-0.7	0.0	-1.6
Raymond Ave. n/o California Blvd.	0.1	0.2	0.0	0.1
Raymond Ave. between California Blvd. and Pico St.	0.1	1.1	0.0	1.8
Raymond Ave. s/o Pico St.	0.1	0.2	0.1	0.2
Glenarm St. e/o Fair Oaks Ave.	0.1	0.5	0.0	0.5

	% of ADT			
Vehicle Type	**Day**	**Eve**	**Night**	**Sub total**
Auto	82.5%	9.7%	4.9%	97.0%
Medium Truck	1.7%	0.2%	0.1%	2.0%
Heavy Truck	0.9%	0.1%	0.1%	1.0%
	85.0%	10.0%	5.0%	100.0%

Roadway Traffic Noise Calculations
4 of4

Project: CAL-FAIR OAKS OFFICE BUILDING

Existing										
	Speed	Traffic Volumes			Leq			CNEL		
Roadway/Segment	MPH	AM	PM	ADT	ROW	25 Feet	50 Feet	ROW	25 Feet	50 Feet
Del Mar Blvd. w/o Fair Oaks Ave.	35	1563	2036	25450	70.4	68.0	66.4	70.3	67.9	66.3
Del Mar Blvd. e/o Fair Oaks Ave.	35	1610	2094	26175	72.2	69.0	67.1	72.1	68.9	67.0
Arroyo Pkwy. n/o California Blvd.	35	2005	2443	30538	70.5	68.3	66.9	70.4	68.2	66.8
Arroyo Pkwy. s/o California Blvd.	35	2637	2966	37075	71.3	69.2	67.7	71.2	69.1	67.6
Glenarm St. w/o Fair Oaks Ave.	25	483	507	6338	64.9	60.8	58.7	64.8	60.7	58.7
Future No Project										
	Speed	Traffic Volumes			Leq			CNEL		
Roadway/Segment	MPH	AM	PM	ADT	ROW	25 Feet	50 Feet	ROW	25 Feet	50 Feet
Del Mar Blvd. w/o Fair Oaks Ave.	35	1632	2110	26375	70.6	68.1	66.6	70.5	68.0	66.5
Del Mar Blvd. e/o Fair Oaks Ave.	35	1711	2184	27300	72.4	69.1	67.3	72.3	69.0	67.2
Arroyo Pkwy. n/o California Blvd.	35	2090	2531	31638	70.6	68.5	67.0	70.5	68.4	67.0
Arroyo Pkwy. s/o California Blvd.	35	2741	3071	38388	71.4	69.3	67.9	71.4	69.2	67.8
Glenarm St. w/o Fair Oaks Ave.	25	661	712	8900	66.4	62.3	60.2	66.3	62.2	60.1
Future With Project										
	Speed	Traffic Volumes			Leq			CNEL		
Roadway/Segment	MPH	AM	PM	ADT	ROW	25 Feet	50 Feet	ROW	25 Feet	50 Feet
Del Mar Blvd. w/o Fair Oaks Ave.	35	1640	2116	26450	70.6	68.1	66.6	70.5	68.0	66.5
Del Mar Blvd. e/o Fair Oaks Ave.	35	1715	2187	27338	72.4	69.1	67.3	72.3	69.1	67.2
Arroyo Pkwy. n/o California Blvd.	35	2107	2541	31763	70.6	68.5	67.1	70.5	68.4	67.0
Arroyo Pkwy. s/o California Blvd.	35	2741	3071	38388	71.4	69.3	67.9	71.4	69.2	67.8
Glenarm St. w/o Fair Oaks Ave.	25	672	718	8975	66.4	62.3	60.3	66.3	62.2	60.2

CNEL

Summary	25 ft. from ROW		At ROW	
Roadway/Segment	Project Increment	Cumulative Increment	Project Increment	Cumulative Increment
Del Mar Blvd. w/o Fair Oaks Ave.	0.0	0.1	0.0	0.2
Del Mar Blvd. e/o Fair Oaks Ave.	0.1	0.2	0.0	0.2
Arroyo Pkwy. n/o California Blvd.	0.0	0.2	0.0	0.1
Arroyo Pkwy. s/o California Blvd.	0.0	0.1	0.0	0.2
Glenarm St. w/o Fair Oaks Ave.	0.0	1.5	0.0	1.5

	% of ADT			
Vehicle Type	Day	Eve	Night	Sub total
Auto	82.5%	9.7%	4.9%	97.0%
Medium Truck	1.7%	0.2%	0.1%	2.0%
Heavy Truck	0.9%	0.1%	0.1%	1.0%
	85.0%	10.0%	5.0%	100.0%

Appendix E

Traffic Study

FINAL

TRAFFIC AND PARKING STUDY FOR THE CALIFORNIA FAIR OAKS OFFICE BUILDING 590-612 SOUTH FAIR OAKS AVENUE, 12-26 EAST CALIFORNIA BOULEVARD PASADENA, CALIFORNIA

Submitted to:

City of Pasadena

Submitted by:

FEHR & PEERS
201 Santa Monica Blvd., Suite 500
Santa Monica, CA 90401
(310) 458-9916

September 2008

FEHR & PEERS
TRANSPORTATION CONSULTANTS

FINAL

TRAFFIC AND PARKING STUDY
FOR THE
CALIFORNIA FAIR OAKS OFFICE BUILDING
590-612 SOUTH FAIR OAKS AVENUE, 12-26 EAST CALIFORNIA BOULEVARD

PASADENA, CALIFORNIA

September 2008

Prepared for:

CITY OF PASADENA

Prepared by:

FEHR & PEERS
201 Santa Monica Boulevard, Suite 500
Santa Monica, California 90401
(310) 458-9916

Ref: LA08-2272

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I. INTRODUCTION

This report documents the results of a study conducted by Fehr & Peers to evaluate the potential traffic and parking impacts for the proposed office building at 590-612 South Fair Oaks Avenue in the City of Pasadena. It includes a description of the assumptions and methods used to conduct the study as well as a discussion of the results.

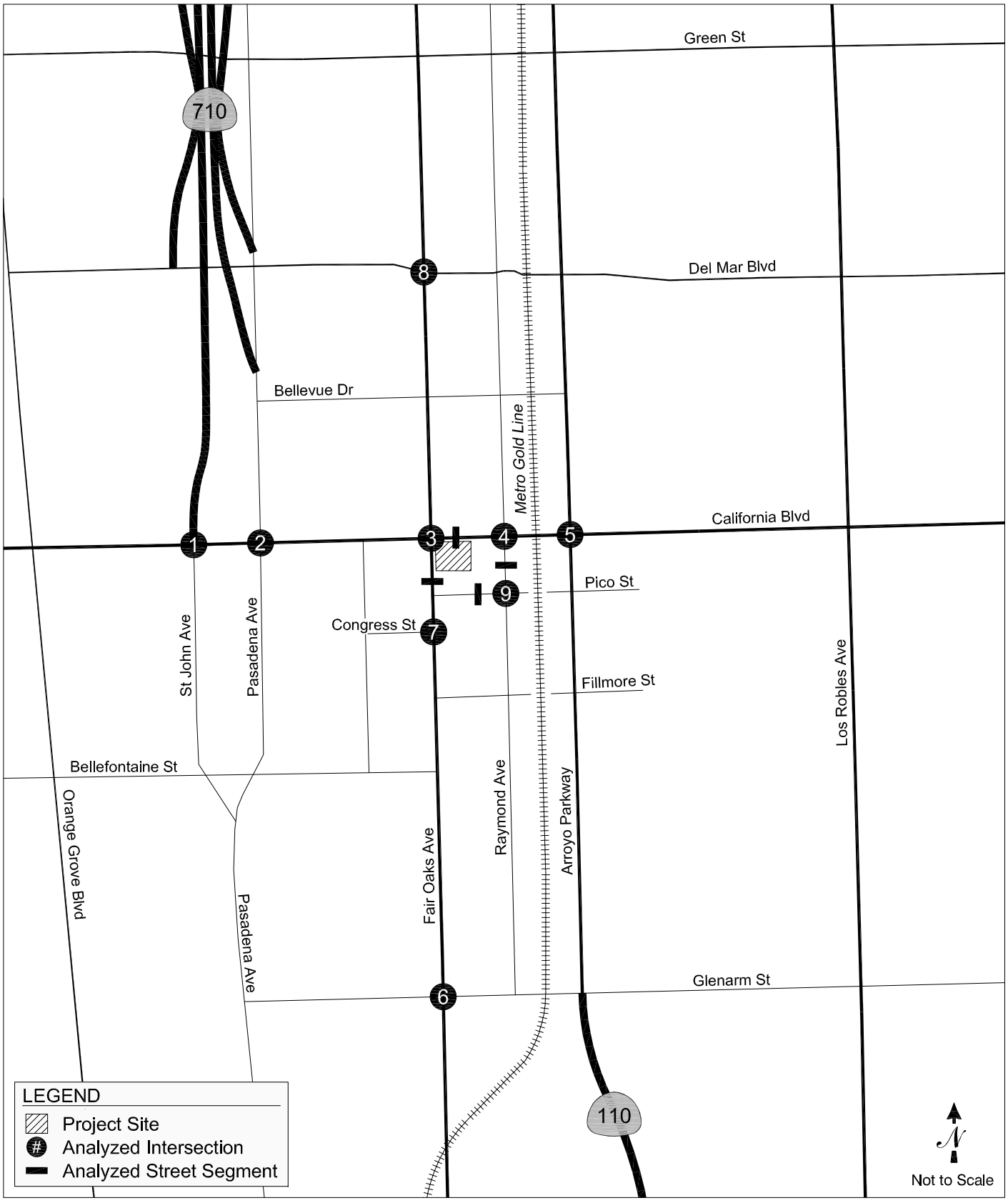
PROJECT DESCRIPTION

The proposed project involves the construction of 113,200 square feet (sf) of office building at the southwest corner of South Fair Oaks & East California Boulevard. The project would demolish three existing buildings on the site containing approximately 12,635 sf of mixed commercial uses and construct a four-story, 45 foot high office building with 255 underground parking spaces.

Planned access to the site would include an entrance (inbound only) off of Fair Oaks Boulevard near the southern property line and two-way access off of Edmonson Alley, east of the site. The location of the project in relation to the surrounding street system is shown in Figure 1 and the ground level site plan of the proposed project is presented in Figure 2.

STUDY SCOPE

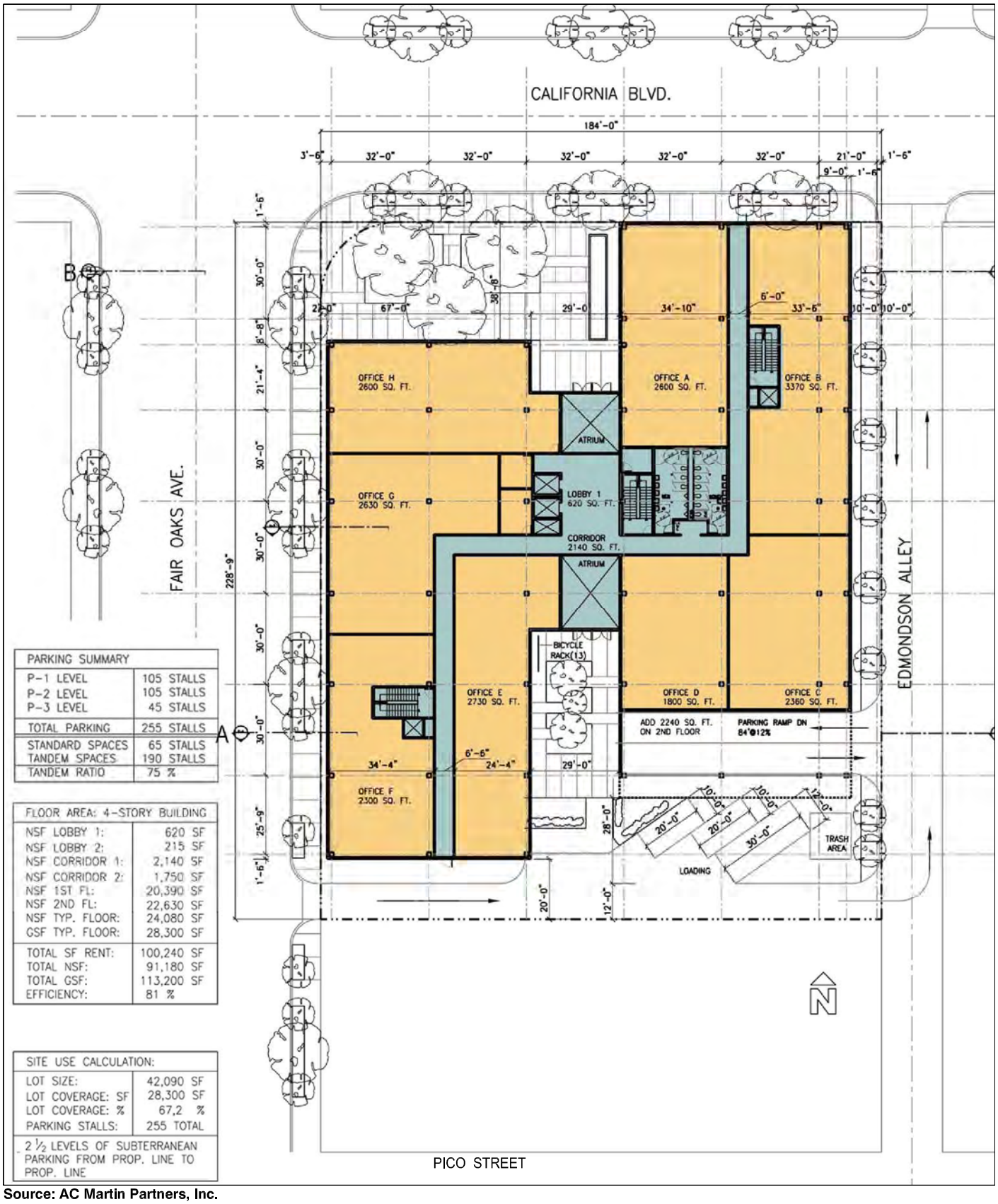
This study analyzes potential project-generated traffic impacts on the streets surrounding and serving the proposed office building in accordance with the methodology specified by the City of Pasadena. The projected completion date of the proposed project is 2010. The impact analysis examines future conditions in 2010 both with and without the proposed project. The following traffic scenarios are analyzed in the study:



FEHR & PEERS
TRANSPORTATION CONSULTANTS

PROJECT LOCATION AND STUDY AREA

FIGURE 1



PARKING SUMMARY	
P-1 LEVEL	105 STALLS
P-2 LEVEL	105 STALLS
P-3 LEVEL	45 STALLS
TOTAL PARKING	255 STALLS
STANDARD SPACES	65 STALLS
TANDEM SPACES	190 STALLS
TANDEM RATIO	75 %

FLOOR AREA: 4-STORY BUILDING	
NSF LOBBY 1:	620 SF
NSF LOBBY 2:	215 SF
NSF CORRIDOR 1:	2,140 SF
NSF CORRIDOR 2:	1,750 SF
NSF 1ST FL:	20,390 SF
NSF 2ND FL:	22,630 SF
NSF TYP. FLOOR:	24,080 SF
GSF TYP. FLOOR:	28,300 SF
TOTAL SF RENT:	100,240 SF
TOTAL NSF:	91,180 SF
TOTAL GSF:	113,200 SF
EFFICIENCY:	81 %

SITE USE CALCULATION:	
LOT SIZE:	42,090 SF
LOT COVERAGE: SF	28,300 SF
LOT COVERAGE: %	67.2 %
PARKING STALLS:	255 TOTAL
2 ½ LEVELS OF SUBTERRANEAN PARKING FROM PROP. LINE TO PROP. LINE	

Source: AC Martin Partners, Inc.

FEHR & PEERS
TRANSPORTATION CONSULTANTS

PROJECT SITE PLAN

FIGURE 2

- Existing (Year 2008) Conditions – The analysis of existing traffic conditions provided a basis for the remainder of the study. The existing conditions analysis included an assessment of streets, traffic volumes, operating conditions, and transit services.

- Year 2010 Cumulative Base (No Project) Conditions – The objective of this scenario was to project future traffic growth and operating conditions that could be expected to result from regional growth and related projects in the vicinity of the project site, without consideration of the proposed project.

- Year 2010 Cumulative plus Project Conditions – The objective of this scenario was to identify potential impacts of the proposed project on projected future traffic operating conditions with proposed project traffic added to the cumulative base traffic forecasts.

The potential project impacts on nine intersections were evaluated for weekday a.m. and p.m. peak hour traffic in the vicinity of the proposed project. The analysis locations are illustrated in Figure 1 and are:

1. California Boulevard & St. John Avenue
2. California Boulevard & Pasadena Avenue
3. California Boulevard & Fair Oaks Avenue
4. California Boulevard & Raymond Avenue
5. California Boulevard & Arroyo Parkway
6. Fair Oaks Avenue & Glenarm Street
7. Fair Oaks Avenue & Congress Street
8. Fair Oaks Avenue & Del Mar Boulevard
9. Raymond Avenue & Pico Street

In addition, as illustrated in Figure 1 and consistent with the City of Pasadena requirements, project traffic impacts were measured on the following street segments:

1. Raymond Avenue between California Boulevard and Pico Street
2. Pico Street between Raymond Avenue and Edmonson Alley
3. Fair Oaks Boulevard between California Boulevard and Pico Street
4. California Boulevard between Fair Oaks Avenue and Edmondson Alley

Finally, the study analyzed potential project impacts on the Los Angeles County Congestion Management Program (CMP) intersections and CMP routes in accordance with requirements of the CMP.

ORGANIZATION OF REPORT

This report is divided into eight chapters, including this introduction. Chapter II describes the existing circulation system, traffic volumes, and traffic conditions in the study area. The methodologies used to forecast future cumulative and project traffic volumes, and the resultant forecasts, are described in Chapter III. Chapter IV presents an assessment of potential traffic impacts and identifies potential traffic mitigation measures. An analysis of potential impacts on street segments is presented in Chapter V. Chapter VI discusses the project's access, circulation and parking. Chapter VII presents the results of the Congestion Management Program regional transportation system impact analysis. The conclusions and recommendations of the study are summarized in Chapter VIII.

II. EXISTING CONDITIONS

A comprehensive data collection effort was undertaken to identify existing transportation and parking conditions in the vicinity of the proposed project. The assessment of existing conditions relevant to this study included the street system, traffic volumes and operating conditions, and public transit service.

EXISTING STREET SYSTEM

The proposed project site is bounded by California Boulevard on the north, Raymond Avenue on the east, and Fair Oaks Avenue on the west. The street system in the study area is illustrated in Figure 1. Primary regional access to the area is provided by the Foothill Freeway (I-210), which runs east-west approximately 1.5 miles north of the project site; the Pasadena Freeway (SR-110), which runs north-south approximately one-half mile south of the project site and ends at the intersection of Glenarm Street & Arroyo Parkway; and the Ventura Freeway (SR-134), which runs east-west approximately 1.5 miles northwest of the project site. Fair Oaks Avenue is a north-south arterial facility providing access to the Foothill Freeway.

Additional streets serving the project site and the surrounding study area include Fair Oaks Avenue, Raymond Avenue and Arroyo Parkway running north-south, and Del Mar Boulevard, California Boulevard, Pico Street, Congress Street and Glenarm Street running east-west. Edmondson Alley is less than 20 feet wide and provides north-south access to land uses along the block. This analysis includes the review of street segments on Raymond Avenue between California Boulevard and Pico Street; Pico Street between Raymond Avenue and Edmonson Alley; Fair Oaks Boulevard between California Boulevard and Pico Street; and California Boulevard between Fair Oaks Avenue and Edmondson Alley.

Table 1 includes a description of the key roadways in the vicinity of the site. Diagrams of the existing intersection lane configurations for the 9 study intersections are contained in Appendix A.

TABLE 1
EXISTING SURFACE STREET CHARACTERISTICS

			LANE		MEDIAN	PARKING RESTRICTIONS		SPEED LIMIT	
SEGMENT	**FROM**	**TO**	**NB/EB**	**SB/WB**	**TYPE**	**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
Arroyo Parkway	Colorado Bl	Green St	2	2	DY	NSAT	RZ	35	35
	Green St	Del Mar Bl	3	2	DY / RM	2HR 9a-4p / NS 6a-9a 3p-7p / MP 2hr 9a-3p	MP 2hr 9a-6p / PA / RZ	35	35
	Del Mar Bl	Bellevue St	3	3	2LT / RM	2hr 9a-3p / NS 6a-9a 3p-7p	NSAT / PA 1hr 9a-3p / NS 6a-9a 3p-7p	35	35
	Bellevue St	Pico St	3	3	2LT / RM	NP / 1hr 9a-3p / NS 6a-9a 3p-7p	1hr 9a-3p / NS 6a-9p 3p-7p	35	35
	Pico St	Filmore St	3	3	RM	2hr 9a-3p	2hr 9a-3p / NS 6a-9p 3p-7p / NSAT	35	35
	Filmore St	1 block north of 110 Fwy	3	3	RM	1hr 9a-3p / NS 6a-9a 3p-7p	NS 6a-9p 3p-7p	35	35
	1 Block north of 110 Fw	Glenarm St	3	3	RM	NSAT / Permit Only	NSAT	35	35
Raymond Av	Colorado Bl	Dayton St	2	2	DY	MP 2hr 9a-6p	MP 2hr 9a-6p	30	30
	Dayton St	Del Mar Gold Line station	2	1	DY	MP 4hr	MP 4hr	30	30
	Del Mar Gold Line statio	Del Mar Bl	2	1	DY	NSAT / Pasenger Loading 7a-9a 4p-6p / Co	NSAT	30	30
	Del Mar Bl	Waverly Dr	2	2	DY	RZ	RZ	30	30
	Waverly Dr	Bellevue St	2	2	DY	2hr 9a-6p / 15 min	2hr 9a-6p / 15 min	30	30
	Bellevue St	California Bl	2	2	DY	PA / 2hr 9a-6p	PA	30	30
	California Bl	Pico St	2	2	DY	RZ	PA	30	30
	Pico St	Glenarm St	2	2	DY	PA	PA	30	30
Fair Oaks Av	Colorado Bl	Green St	2	2	DY	NSAT	NSAT	35	35
	Green St	Dayton St	2	2	DY	MP 2hr 8a-8p	MP 2hr 8a-8p	35	35
	Dayton St	Del Mar St	2	2	DY	MP 4hr 8a-8p	MP 4hr 8a-8p	35	35
	Del Mar Bl	Bellevue St	2	2	DY	RZ / 2hr 9a-6p	RZ / 2hr 9a-6p	30	30
	Bellevue St	California Bl	2	2	DY	RZ / 2hr 9a-6p	RZ / 2hr 9a-6p	30	30
	California Bl	Congress St	2	2	DY	NSAT / RZ	NSAT / RZ	35	35
	Congress St	Glenarm St	2	2	DY	PA	1hr 9a-6p	35	35
Del Mar Bl	Pasadena Av	Fair Oaks Bl	2	2	DY	NSAT / MP 2hr 9a-6p	NSAT / MP 2hr 9a-6p	35	35
	Fair Oaks Bl	Raymond Av	2	2	DY	MP 4hr / NSAT	NSAT	35	35
	Raymond Av	Arroyo Pkwy	2	2	DY / RM	NSAT	NSAT	35	35
	Arroyo Pkwy	Marengo Av	2	2	DY	NSAT	2hr 9a-4p / NSAT / NS 7a-9a 4p-6p	35	35
	Marengo Av	Los Robles Bl	2	2	DY	2hr 9a-3p / NS 7a-9p / 2hr 9a-4p	2hr 9a-4p / NSAT / NS 7a-9a 4p-6p	35	35
California Bl	St. John Ave	Pasadena Av	3	2	RM / 2LT / DY	NSAT	NSAT	30	30
	Pasadena Av	Fair Oaks Bl	3	2	RM / 2LT / DY	MP 2hr 8a-8p	MP 2hr 8a-8p	30	30
	Fair Oaks Bl	Raymond Av	2	2	DY / 2LT	NSAT	NSAT	30	30
	Raymond Av	Arroyo Pkwy	2	2	DY / RM	NSAT	NSAT	30	30
	Arroyo Pkwy	Marengo Av	2	2	DY	NSAT	NSAT	30	30
	Marengo Av	Los Robles Bl	2	2	DY	NSAT	NSAT	30	30
Glenarm St	Pasadena Av	Fair Oaks Bl	1	1	SDY / DY	2hr 9a-6p	NSAT	25	25
	Fair Oaks Bl	Raymond Av	2	1	DY	NSAT	NSAT	25	25
	Raymond Av	Arroyo Pkwy	2	1	RM	NSAT	NSAT	25	25
	Arroyo Pkwy	Marengo Av	2	1	DY	NSAT	NSAT	25	25
	Marengo Av	Los Robles Bl	1	1	DY / 2LT	PA	PA	35	35
Pico St	Fair Oaks Bl	Raymond Av	1	1	UD	15 min / PA	PA	25	25
	Raymond Av	Gold Line Tracks / End	1	1	UD	NSAT	NSAT	25	25

Notes:

MEDIAN TYPE:
DY = Double Yellow Centerline
SDY = Single Dashed Yellow Centerline
2LT = Dual Left Turn Centerline
RM = Raised Median
UD = Undivided Lane

PARKING: PA = Parking Allowed
NSAT = No Stopping Anytime
GZ = Green zone - Passenger loading and unloading
RZ = Red zone - No parking allowed
MP = Metered Parking

LANES: # = Number of lanes

EXISTING TRAFFIC VOLUMES AND OPERATING CONDITIONS

The following sections present the existing peak hour traffic volumes at the study intersections, the methodology used to analyze intersection operating conditions, and the resulting level of service at each location under existing conditions.

Existing Peak Hour Traffic Volumes

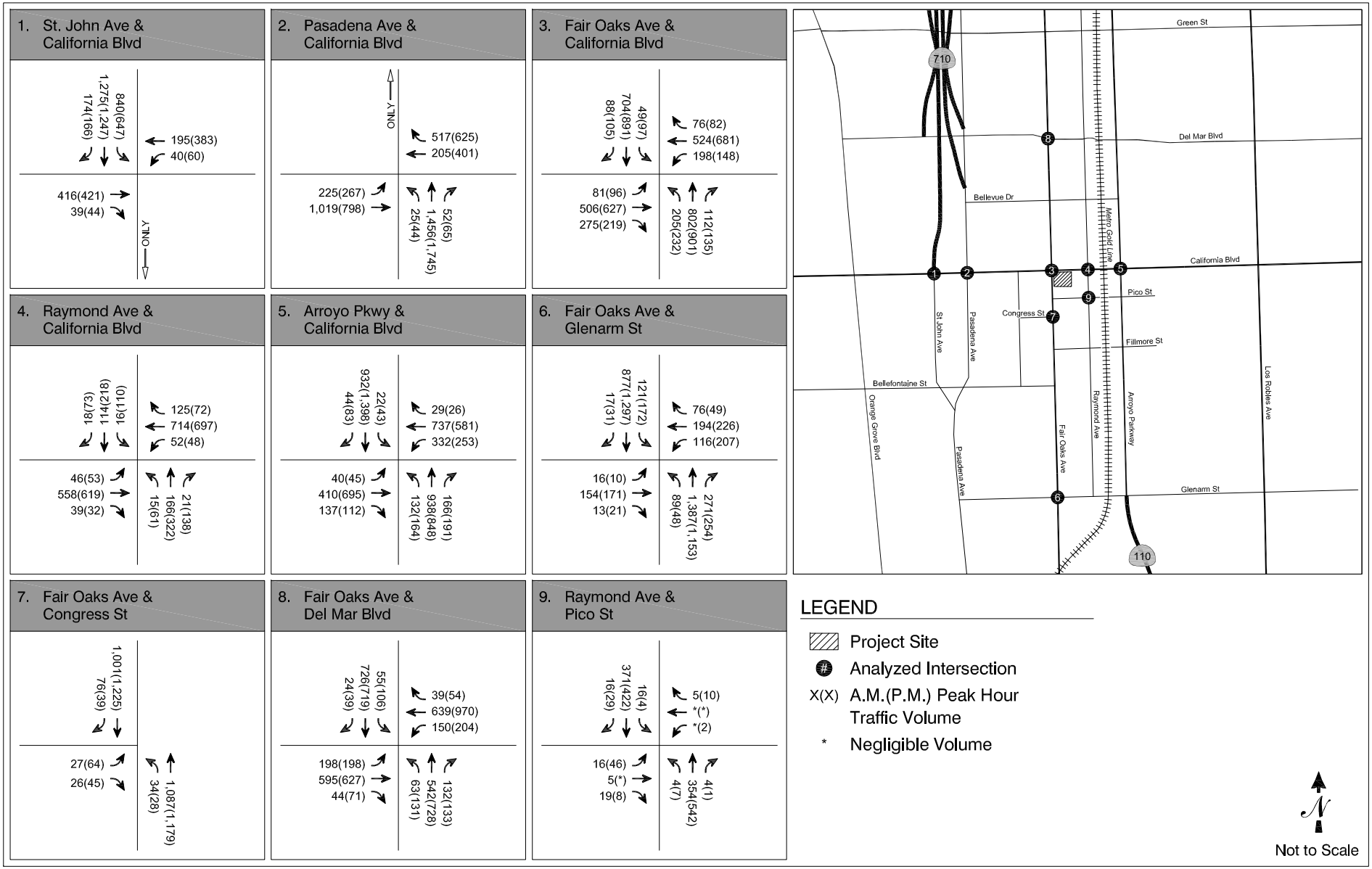
The year 2008 traffic volumes were developed from 2004-2007 traffic counts. These volumes were factored by a 1.5% annual growth rate to approximate 2008 volumes (1.5% annual growth rate from *Transportation Impact Review Current Practice & Guidelines,* City of Pasadena, 2005).

The existing peak hour turning movements at the analyzed intersections are illustrated in Figure 3.

Level of Service Methodology

Level of service (LOS) is a qualitative measure used to describe the condition of traffic flow at an intersection. LOS ranges from excellent conditions at LOS A to overloaded conditions at LOS F. An intersection's volume-to-capacity (V/C) ratio is used to assess the LOS at signalized intersections. LOS definitions for signalized intersections are listed in Table 2.

Fair Oaks Avenue & Fillmore Street and Fair Oaks & Congress Street are controlled by stop signs on the minor streets. All other study intersections are controlled by traffic signals. The Intersection Capacity Utilization method of intersection analysis, per the City of Pasadena's requirements for analyzing intersection conditions, was used to determine the intersection V/C ratio and corresponding LOS for each study intersection. A capacity of 1,700 vehicles per lane per hour was assumed in the capacity calculations, in accordance with City of Pasadena policy.



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EXISTING PEAK HOUR TRAFFIC VOLUMES

FIGURE 3

TABLE 2
LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS

Level of Service	Intersection Capacity Utilization	Definition
A	0.000-0.600	EXCELLENT. No Vehicle waits longer than one red light and no approach phase is fully used.
B	0.601-0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701-0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801-0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901-1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths

Source: Transportation Research Board, *Highway Capacity Manual, Special Report 209,* 1994

Existing Peak Hour Intersection Levels of Service

The weekday a.m. and p.m. peak hour turning movements were used in conjunction with the LOS methodology described above to determine existing operating conditions at each study intersection. LOS calculation worksheets are included in Appendix B.

Table 3 summarizes the existing weekday a.m. and p.m. peak hour V/C ratio or delay and corresponding LOS for nine study intersections. The intersection of Pasadena Avenue & California Boulevard operates at LOS F during the PM peak hour. All other study intersections operate at acceptable levels (LOS D or better) during both of the peak hours.

EXISTING PUBLIC TRANSIT SERVICE

The existing public transit service in the vicinity of the proposed project site is provided by the Los Angeles County Metropolitan Transportation Authority (Metro) and the Pasadena Area Rapid Transit System (ARTS). The following transit lines serve the study area:

- Metro Line 177 – Line 177 is a local east-west line that travels from La Canada Flintridge to Duarte. This line provides service to the Memorial Park, Allen Avenue and Sierra Madre Villa Metro Stations, as well as to Pasadena City College and the California Institute of Technology. This line travels along California Boulevard in the study area.

- Metro Line 260 – Line 260 is a local north-south line that travels from North Long Beach to Altadena. This line travels along Fair Oaks Avenue in the study area.

- Metro Line 256 – Line 256 is a local north-south line that travels from Commerce to Altadena. This line provides service to the Del Mar and Allen Avenue Metro Stations. This line travels along Raymond Boulevard and California Boulevard in the study area.

- Metro Line 361 – Line 361 is a local north-south line that travels from North Long Beach to Altadena. This line travels along Fair Oaks Avenue in the study area.

- Metro Line 687 – Line 687 is a local north-south line that travels from Alhambra to Altadena. This line travels along Raymond Avenue in the study area.

- Metro Line 686 – Line 686 is a local north-south line that travels from Pasadena to Altadena. This line provides service to the Fillmore Street, Del Mar and Allen Avenue Metro Stations. This line travels along Fair Oaks Street, Raymond Boulevard, Colorado Boulevard, and Allen Avenue in the study area.

TABLE 3
INTERSECTION LEVEL OF SERVICE ANALYSIS
EXISTING CONDITIONS (YEAR 2008)

Intersections	Peak Hour	Existing Conditions	
		V/C	LOS
1. St John Ave and California Blvd	A.M.	0.702	C
	P.M.	0.638	B
2. Pasadena Ave and California Blvd	A.M.	0.782	C
	P.M.	0.930	E
3. Fair Oaks Ave and California Blvd	A.M.	0.669	B
	P.M.	0.759	C
4. Raymond Ave and California Blvd	A.M.	0.351	A
	P.M.	0.486	A
5. Arroyo Pkwy and California Blvd	A.M.	0.635	B
	P.M.	0.789	C
6. Fair Oaks Ave and Glenarm St	A.M.	0.777	C
	P.M.	0.800	C
7. Fair Oaks Ave and Congress St	A.M.	0.403	A
	P.M.	0.476	A
8. Fair Oaks Ave and Del Mar Blvd	A.M.	0.623	B
	P.M.	0.782	C
9. Raymond Ave and Pico St	A.M.	0.195	A
	P.M.	0.248	A

- Metro Gold Line – The Metro Gold Line is a light rail line that travels from Union Station in downtown Los Angeles to Sierra Madre Villa in Pasadena. This line provides service to Old Pasadena and Pasadena City College. This line travels between Raymond Avenue and Arroyo Parkway in the study area and has a station at 95 Fillmore Street at Raymond Avenue & Arroyo Parkway in walking distance of the project site.

- ARTS Line 20 – Line 20 is a local east-west line that travels from Fair Oaks Avenue to Woodbury Road. This line provides service to the Fillmore Street Metro Station and the California Institute of Technology. This line runs along California Boulevard in the study area.

- ARTS Lines 51/52 –Lines 51/52 provides weekday service between the Art Center College of Design and the Fillmore Gold Line Station. Line 52 also provides a.m. and p.m. peak hour service to the Jet Propulsion Laboratory. In the study area, both lines travel between Del Mar Boulevard and the Fillmore Gold Line Station and Glenarm Street via Fair Oaks (southbound) and Raymond Avenue (northbound)

III. FUTURE TRAFFIC PROJECTIONS

In order to evaluate potential impacts of the proposed project on the street system, it was necessary to develop estimates of future traffic conditions in the study area both with and without the project. Future (2010) traffic volumes were first estimated for the study area without the project. These future forecasts reflect traffic increases due to general regional growth and traffic generated by other expected developments in the vicinity of the project. They represent cumulative base (no project) conditions. The additional traffic expected to result from the proposed project was then estimated and separately assigned to the surrounding street system. The sum of the cumulative base and project-generated traffic represents the cumulative plus project conditions. The development of these future traffic scenarios is described in this chapter.

CUMULATIVE BASE TRAFFIC PROJECTIONS

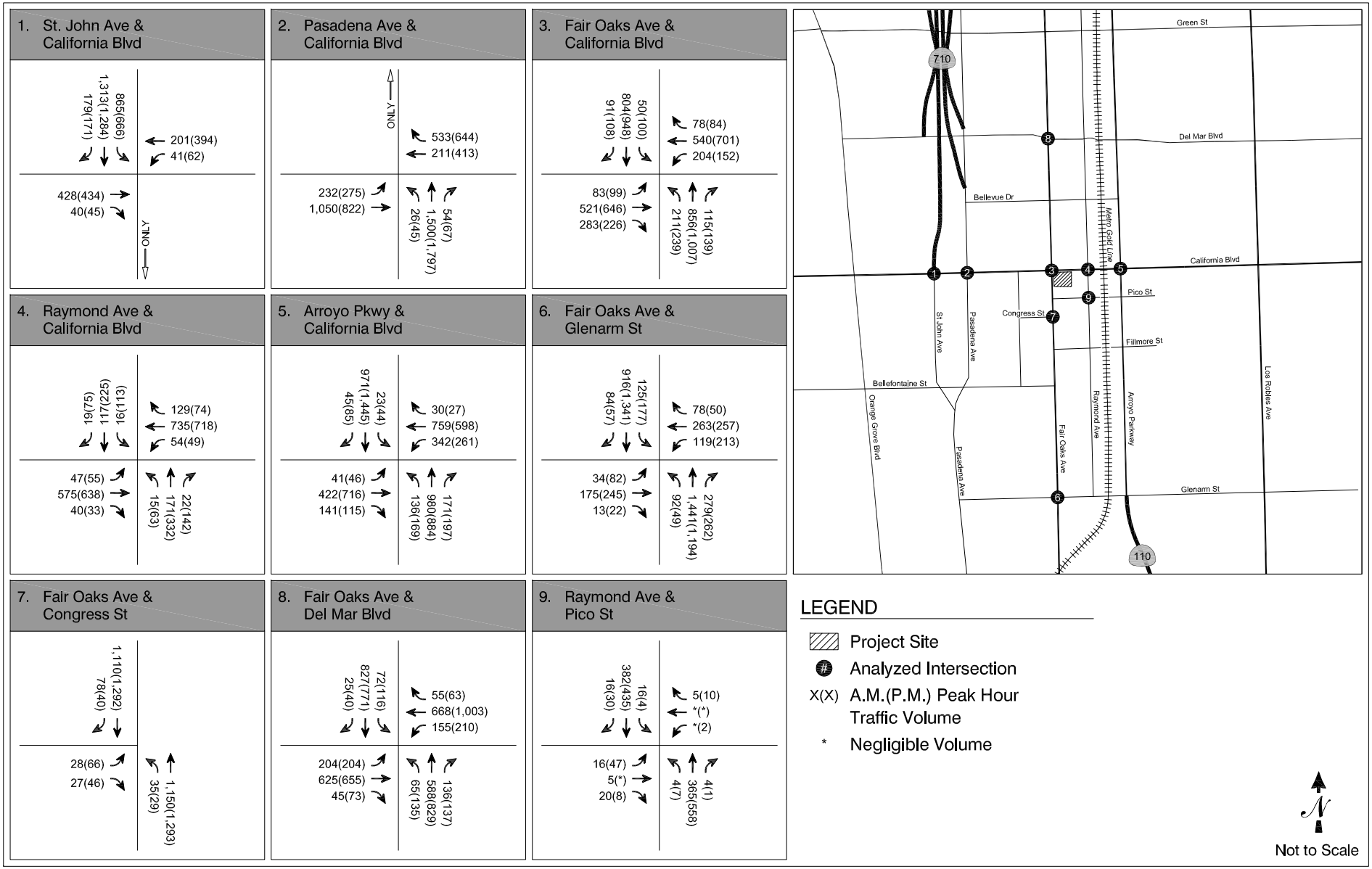
The cumulative base traffic projections include two elements. The first element is the growth in the existing background traffic volumes reflecting the effects of overall regional growth and development both inside and outside the study area. The second element is the traffic generated by specific cumulative projects located within or near the study area.

The 2008 cumulative base traffic volumes were increased by 3% (1.5% per year) to reflect regional traffic growth for year 2010 conditions. Cumulative base traffic forecasts include the effects of specific cumulative development projects, also called related projects, expected to be built in the vicinity of the proposed project site prior to the buildout date of the proposed project. The list of related projects was based on data from the City of Pasadena. A total of 10 cumulative projects were identified in the study area and are listed in Table 4.

The resulting traffic volumes, representing cumulative base conditions without the project for year 2010, are presented in Figure 4.

TABLE 4
TRIP GENERATION ESTIMATES FOR THE RELATED PROJECTS

	Project Location	Land Uses	Daily	AM Peak			PM Peak		
				Trip Gen	In	Out	Trip Gen	In	Out
1	140 E Orange Grove Blvd	Demo existing 4 bungalows, 1,755 sf of restaurant, 980 sf of retail. Construct 26 condos, 7,824 sf retail	161	2	-1	3	15	8	7
2	563 E Lincoln Ave	Demo 4 residential units. Construct 20 condos.	77	4	5	1	2	6	4
3	208 E Orange Grove Blvd	Construct 5,950 sf retail, 6,364 sf office.	334	22	51	29	17	25	8
4	760 N Fair Oaks Ave	106-unit senior housing and 4,000 sf retail.	455	11	5	6	19	10	9
5	855 N Fair Oaks Ave	Demo 2,251 sf retail. Construct 14 condos and 3,960 sf office.	29	10	5	5	5	2	3
6	865 N Fair Oaks Ave	Demo church, specialty retail, counseling center. Construct 16 senior units and 3,623 sf retail	156	17	8	9	13	7	6
7	810 N Marengo Ave	18 unit condominium	105	8	1	7	9	6	3
8	31 E Villa St	Private school (85 students)	124	64	31	33	4	3	1
9	100 W California Blvd	Huntington Hospital ER Expansion	360	9	5	4	17	10	7
10	70 W California Blvd	Demo 21,000 sf warehouse, 10,629 sf pharmacy, and 1,968 retail. Construct 195,000 sf medical office	5059	325	259	66	370	89	281



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2010 NO PROJECT PEAK HOUR TRAFFIC VOLUMES

FIGURE 4

PROJECT TRAFFIC PROJECTIONS

Determination of the traffic characteristics for the proposed project involved a three-step process: the estimation of project trip generation, trip distribution, and trip assignment.

Project Traffic Generation

Trip Generation, 7th Edition (Institute of Transportation Engineers, 2003), a national standard used universally by the traffic engineering profession, was used to estimate the number of trips generated by the proposed land uses and existing land uses which would be replaced by the proposed project. Table 5 provides a summary of the project trip generation estimates and rates. As indicated, the project is expected to generate a total of 1,246 weekday daily trips, including 175 weekday a.m. peak hour trips, and 169 weekday p.m. peak hour trips. Applying credits for TDM and previous and existing land uses, the total net trip generation is calculated. Accounting for the 10% TDM credit, a credit for a previous land use (6,525 sf restaurant) and for the active commercial land uses (based on 2008 driveway counts), there is a total net trip generation of 253 daily trips, including 113 a.m. peak hour tips and 40 p.m. peak hour trips.

Project Traffic Distribution

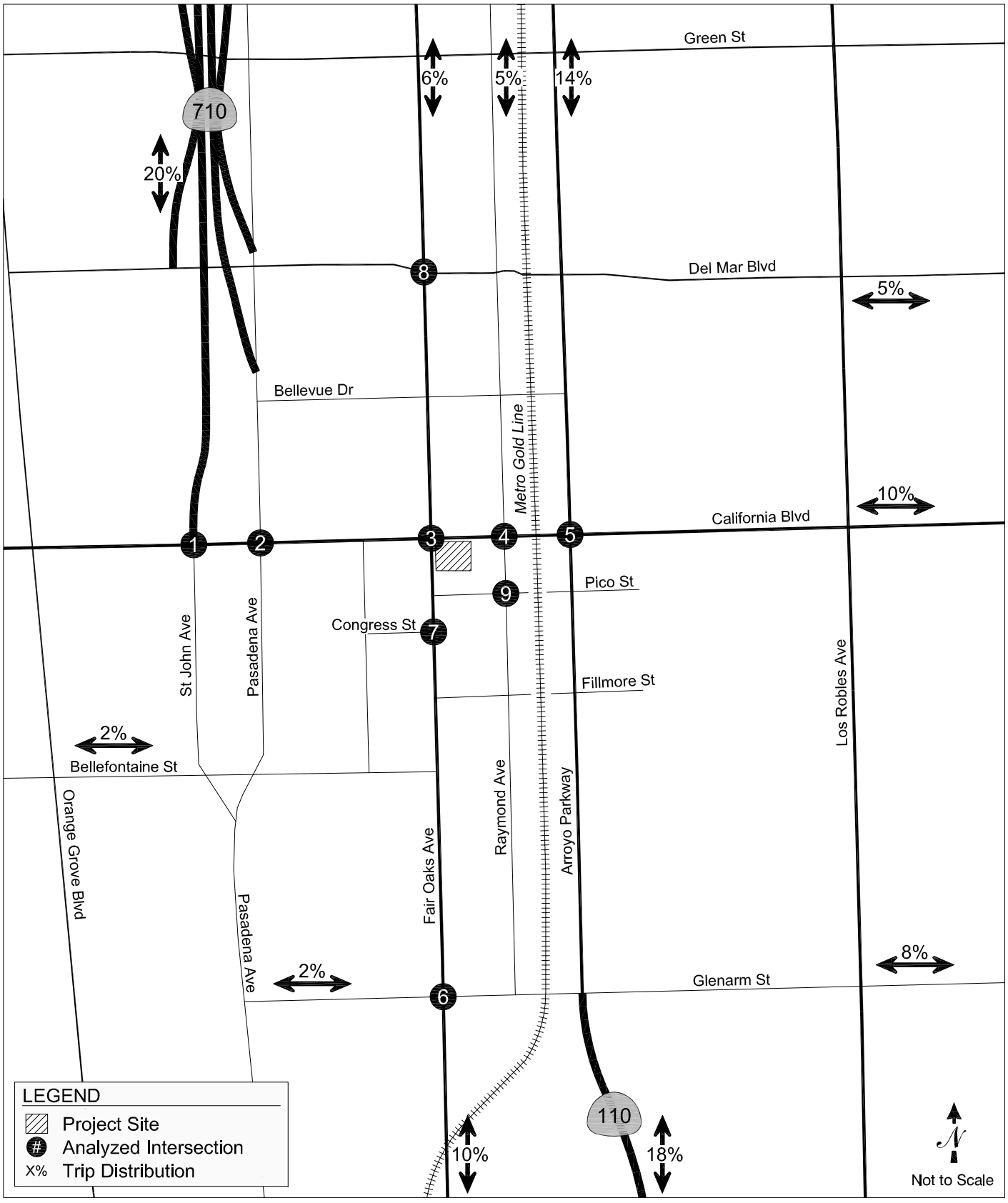
The geographic distribution patterns for the proposed project were based on the Pasadena General Plan Model. Using the model results, it was calculated that for the office land use, 25% of the trips would come from the north, 23% from the east, 28% would come from the south, and 24% would come from the west. Figure 5 illustrates the general trip distribution pattern within the study area. Figure 6 illustrates the projected trip distribution pattern through the nine study intersections.

TABLE 5
PROJECT TRIP GENERATION

Land Use	ITE#	Rate	Daily	AM Peak			PM Peak		
				Trip Gen	In	Out	Trip Gen	In	Out
Trip Rates [a]									
Office	710	per 1,000 sq ft	11.01	1.55	88%	12%	1.49	17%	83%
Restaurant	931	per 1,000 sq ft	89.95	0.81	52%	48%	7.49	67%	33%

Land Use	ITE#	Size	Daily	AM Peak			PM Peak		
				Trip Gen	In	Out	Trip Gen	In	Out
Proposed Project									
Office	710	113,200 sq ft	1,246	175	154	21	169	29	140
TDM Credit [b]									
10% of trips			125	18	15	2	17	3	14
Previous Land Use Credit [c]									
Restaurant	931	6,525 sq ft	587	5	3	2	49	33	16
Less 10% passby			(59)	(1)	(1)	0	(5)	(3)	(2)
Existing Active Land Use Credit [d]									
Commercial		6,110 sq ft	340	40	34	6	68	25	43
Total Net Trip Generation			253	113	103	11	40	(29)	69

Notes:
[a] Based on average rate listed in Trip Generation, 7th Edition, ITE for the identified land uses.
[b] Assume 10% TDM credit based on goals from City's Traffic Reduction Strategies Study.
[c] Credit reduced for 10% passby rate from Los Angeles County recommended passby rates for restauarants.
[d] Based on May 6, 2006 driveway counts collected by Wiltec. Daily trips are assumed at 20 percent of PM Peak hour trips.



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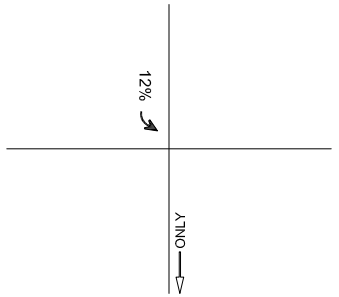
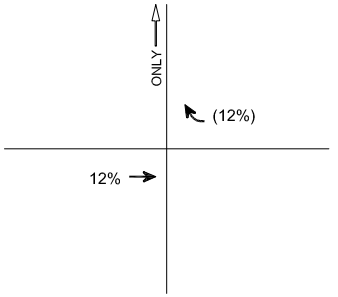
REGIONAL PROJECT TRIP DISTRIBUTION

FIGURE 5

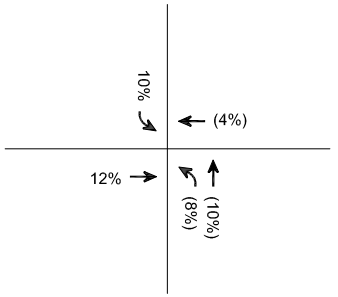
1. St. John Ave & California Blvd



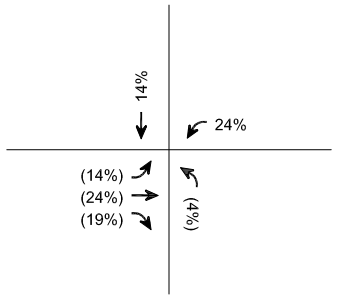
2. Pasadena Ave & California Blvd



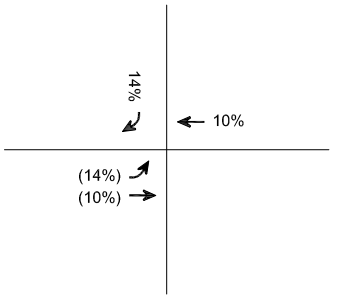
3. Fair Oaks Ave & California Blvd



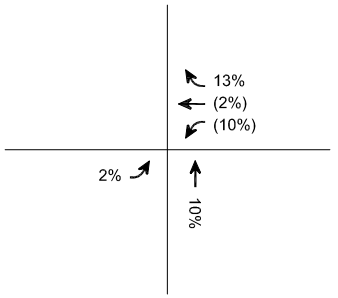
4. Raymond Ave & California Blvd



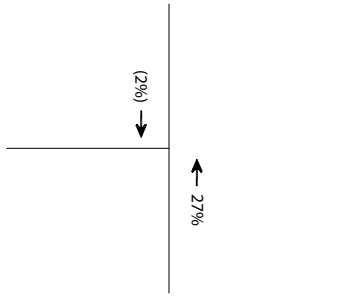
5. Arroyo Pkwy & California Blvd



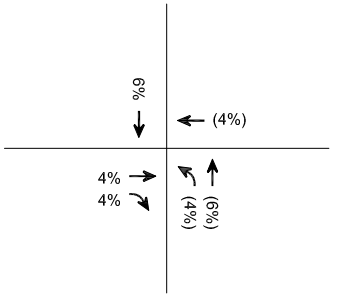
6. Fair Oaks Ave & Glenarm St



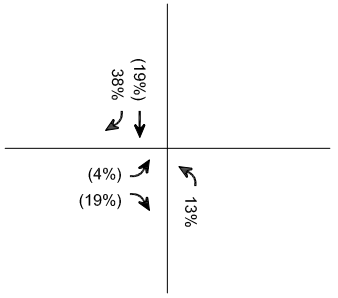
7. Fair Oaks Ave & Congress St

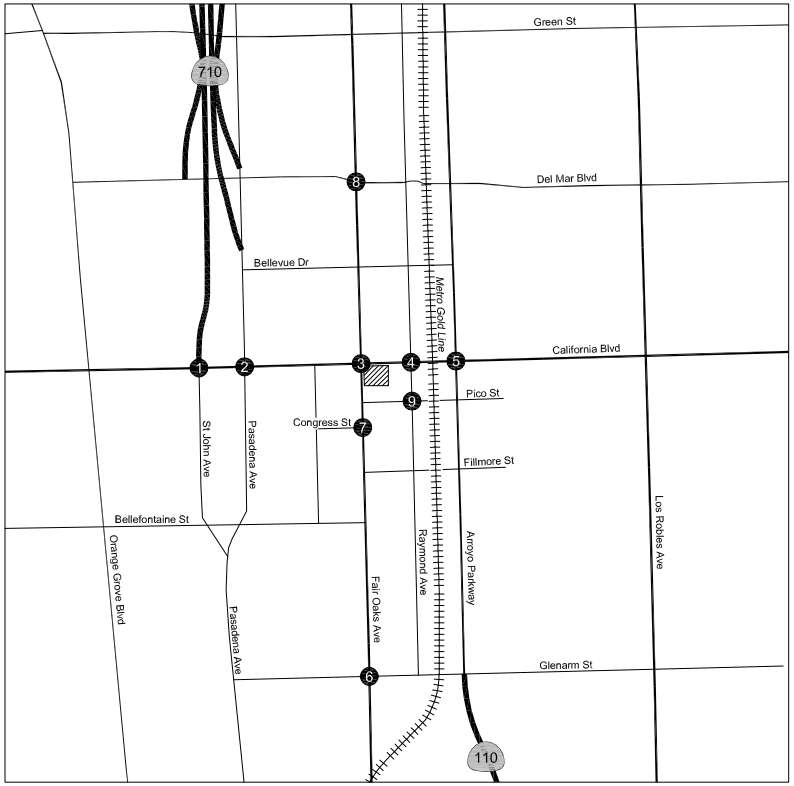


8. Fair Oaks Ave & Del Mar Blvd



9. Raymond Ave & Pico St





LEGEND

- Project Site
- (#) Analyzed Intersection
- X%(X%) Inbound(Outbound) Trip Distribution

Not to Scale

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TRIP DISTRIBUTION

FIGURE 6

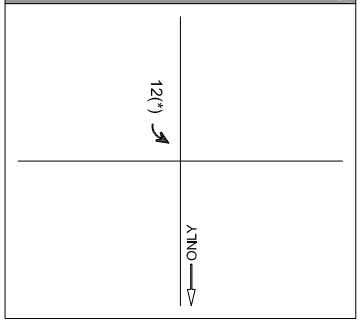
Project Traffic Assignment

Using the estimated trip generation and the distribution pattern developed above, the traffic generated by the proposed project was assigned to the street network. Figure 7 illustrates the proposed project-generated peak hour traffic volumes for both peak hours at each of the nine study intersections.

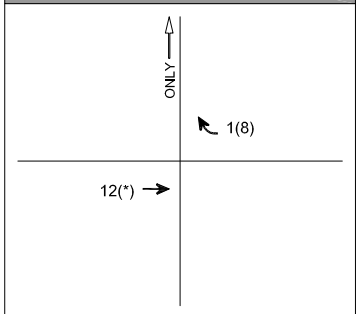
CUMULATIVE PLUS PROJECT TRAFFIC PROJECTIONS

The project-generated traffic volumes were added to the cumulative base traffic projections to yield the cumulative plus project traffic forecasts for 2010. Figure 8 illustrates the forecasted cumulative plus project a.m. and p.m. peak hour traffic volumes at each of the study intersections.

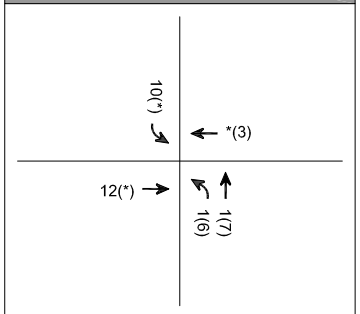
1. St. John Ave & California Blvd



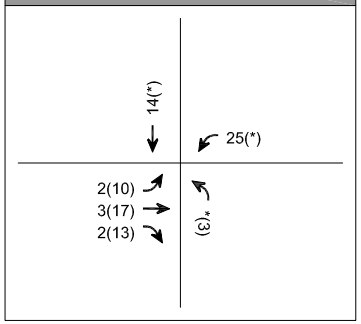
2. Pasadena Ave & California Blvd



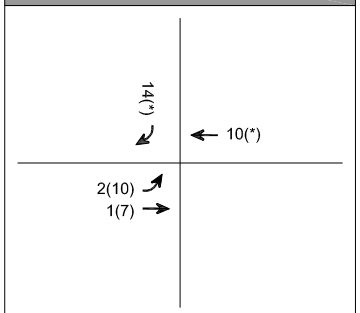
3. Fair Oaks Ave & California Blvd



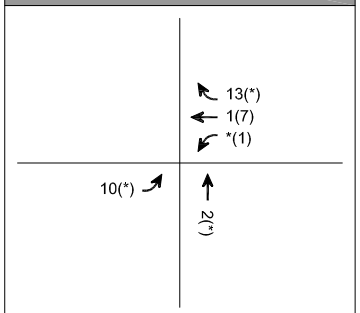
4. Raymond Ave & California Blvd



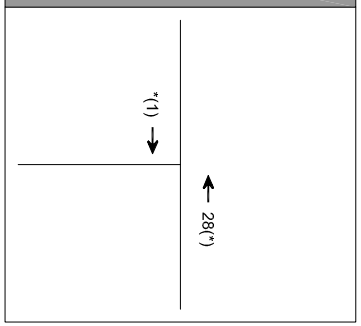
5. Arroyo Pkwy & California Blvd



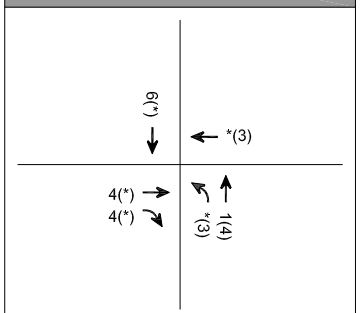
6. Fair Oaks Ave & Glenarm St



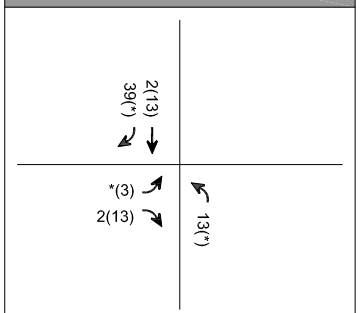
7. Fair Oaks Ave & Congress St

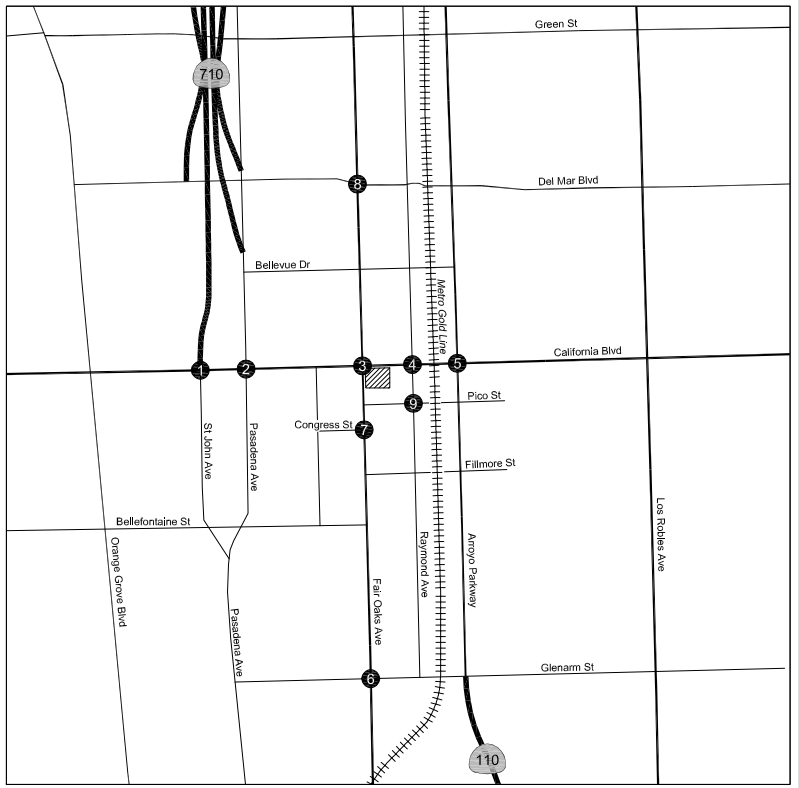


8. Fair Oaks Ave & Del Mar Blvd



9. Raymond Ave & Pico St





LEGEND

- Project Site
- # Analyzed Intersection
- X(X) A.M.(P.M.) Peak Hour Traffic Volume
- * Negligible Volume

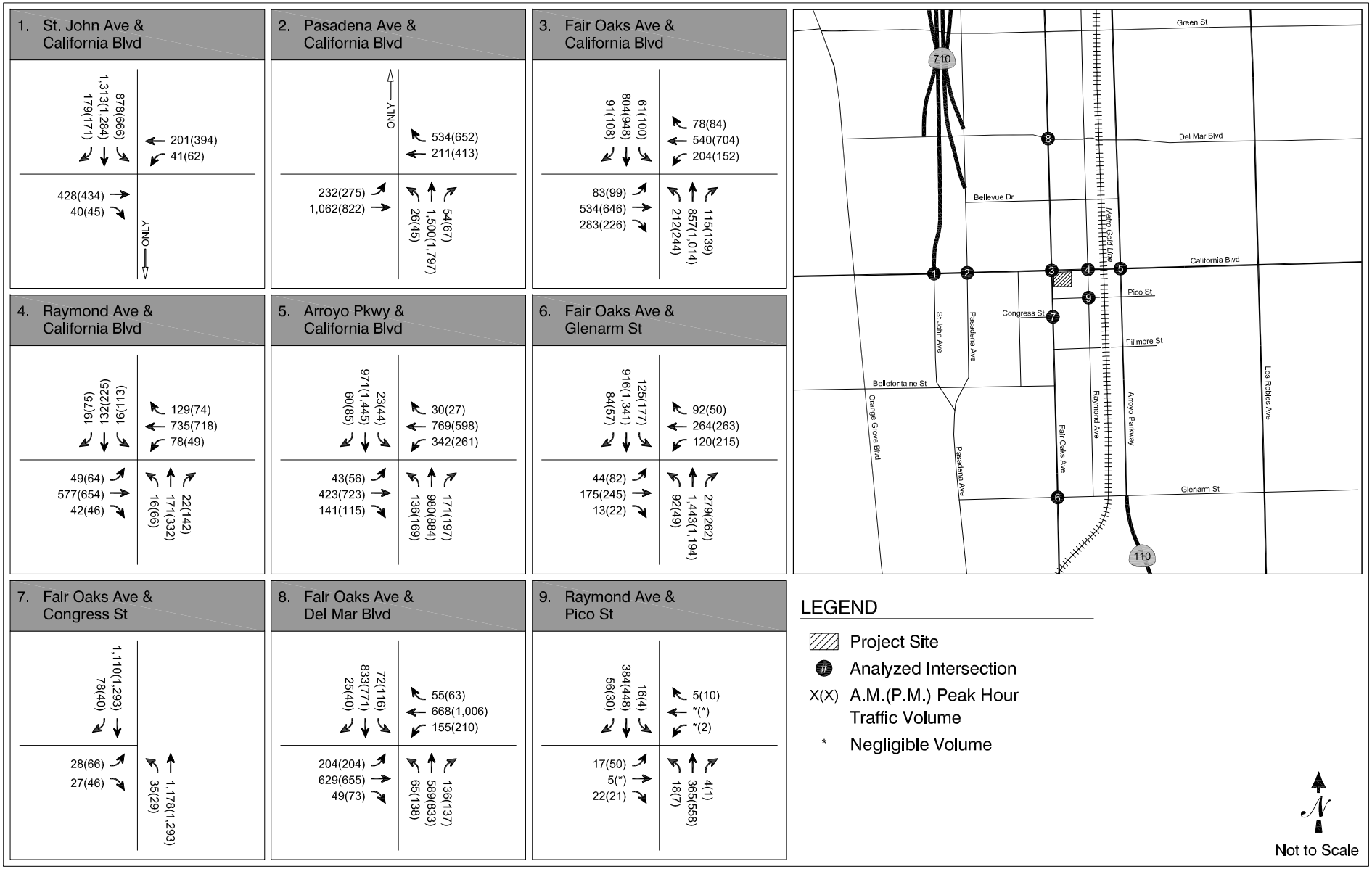
N

Not to Scale

FEHR & PEERS
TRANSPORTATION CONSULTANTS

PROJECT ONLY PEAK HOUR TRAFFIC VOLUMES

FIGURE 7



FEHR & PEERS
TRANSPORTATION CONSULTANTS

2010 WITH PROJECT PEAK HOUR TRAFFIC VOLUMES

FIGURE 8

IV. INTERSECTION TRAFFIC IMPACT ANALYSIS

This chapter presents an analysis of the potential impacts of the traffic generated by the proposed project on the local street system. The analysis compares the forecasted LOS at each study intersection under cumulative conditions for 2010 both with and without the proposed project to determine potential impacts using significance criteria established by the City of Pasadena.

CRITERIA FOR DETERMINATION OF SIGNIFICANT TRAFFIC IMPACT

The Department of Transportation of the City of Pasadena has established threshold criteria that determine if a project has a significant traffic impact at a specific intersection. According to the criteria provided by the City of Pasadena, a project impact would be considered significant if the following conditions are met:

Intersection Level of Service under Current Conditions	Project-related Increase in V/C
A	0.06
B	0.05
C	0.04
D	0.03
E	0.02
F	0.01

CUMULATIVE BASE TRAFFIC CONDITIONS

This section presents an analysis of potential future traffic conditions under year 2010 cumulative base conditions. The cumulative base traffic volumes projected in Chapter III were analyzed using the LOS methodologies described in Chapter II to forecast cumulative base peak hour LOS at the study locations.

The first columns in Table 6 summarize the results of this analysis. Under year 2010 cumulative base conditions, the following intersections would operate at poor LOS:

- Pasadena Avenue & California Boulevard at LOS E (p.m. peak hour)

All other study intersections would operate at LOS D or better during both of the peak hours.

CUMULATIVE PLUS PROJECT TRAFFIC CONDITIONS

The cumulative plus project peak hour traffic volumes, illustrated in Figure 8, were analyzed to determine the forecasted 2010 operating conditions with the inclusion of the proposed project traffic. The results of the cumulative plus project analysis are also contained in Table 6, which shows that all intersections are projected to operate at the same LOS as in the cumulative base scenario during both peak hours.

PROJECT IMPACTS

According to the City of Pasadena's impact criteria, the proposed project traffic would not result in V/C increases large enough to result in significant impacts at any of the study intersections during either of the peak hours.

TABLE 6
INTERSECTION LEVEL OF SERVICE ANALYSIS - FUTURE CONDITIONS (2010)

Intesections	Peak Hour	Existing	Cumulative Base 2010		Cumulative Plus Project 2010			
		LOS	V/C	LOS	V/C	LOS	Change in V/C	Signif. Impact
1. St John Ave and California Blvd	A.M.	C	0.721	C	0.728	C	0.007	NO
	P.M.	B	0.655	B	0.655	B	0.000	NO
2. Pasadena Ave and California Blvd	A.M.	C	0.805	D	0.805	D	0.000	NO
	P.M.	E	0.956	E	0.961	E	0.005	NO
3. Fair Oaks Ave and California Blvd	A.M.	B	0.710	C	0.715	C	0.005	NO
	P.M.	C	0.791	C	0.795	C	0.004	NO
4. Raymond Ave and California Blvd	A.M.	A	0.360	A	0.361	A	0.001	NO
	P.M.	A	0.498	A	0.504	A	0.006	NO
5. Arroyo Pkwy and California Blvd	A.M.	B	0.654	B	0.657	B	0.003	NO
	P.M.	C	0.814	D	0.816	D	0.002	NO
6. Fair Oaks Ave and Glenarm St	A.M.	C	0.851	D	0.865	D	0.014	NO
	P.M.	C	0.864	D	0.865	D	0.001	NO
7. Fair Oaks Ave and Congress St	A.M.	A	0.436	A	0.436	A	0.000	NO
	P.M.	A	0.498	A	0.498	A	0.000	NO
8. Fair Oaks Ave and Del Mar Blvd	A.M.	B	0.672	B	0.673	B	0.001	NO
	P.M.	C	0.836	D	0.837	D	0.001	NO
9. Raymond Ave and Pico St	A.M.	A	0.198	A	0.221	A	0.023	NO
	P.M.	A	0.253	A	0.261	A	0.008	NO

V. STREET SEGMENT IMPACT ANALYSIS

Four street segments were selected for analysis of impacts of the proposed project:

1. Raymond Avenue between California Boulevard and Pico Street
2. Pico Street between Raymond Avenue and Edmonson Alley
3. Fair Oaks Boulevard between California Boulevard and Pico Street
4. California Boulevard between Fair Oaks Avenue and Edmondson Alley

DAILY TRAFFIC PROJECTIONS

Daily volumes on each of the four street segments were estimated from existing turning movement volumes. These daily volumes were subsequently increased to reflect year 2010 based on growth projections from the City's General Plan and are shown in Table 7. The project's daily volumes are estimated based on the project trip generation shown in Table 5 and distributed using the patterns illustrated in Figure 6. As indicated in Table 5, the total daily traffic volume generated by the project is estimated at 253 vehicles on weekdays.

STUDY AREA STREET SEGMENT ANALYSIS

The study area street segments were analyzed under existing, cumulative base, and cumulative plus project conditions, much like the intersection analyses. According to the City of Pasadena requirements, the percentage increase in daily volumes on study area street roadway segments during the project year due to project traffic determines the significance of project impacts. The project is required to provide mitigations for these impacts based on the City's defined threshold levels.

TABLE 7
STREET SEGMENT IMPACT ANALYSIS

Street Segment	Weekday 2-Way Daily Volumes					Impact Analysis				
	Existing (2008)	Ambient Growth [a]	Cumulative Base (2010)	Project Only	Cumulative Base plus Project (2010)	Increase (%)	Soft Mitigation Criteria	Impacts	Physical Mitigation Criteria	Impacts
1. Raymond Ave between California Blvd and Pico St	13,163	10%	14,479	77	14,556	0.5%	2.5%	NO	5.0%	NO
2. Pico St between Raymond Ave and Edmonson Alley	1,125	1%	1,136	94	1,230	8.2%	2.5%	YES	5.0%	YES
3. Fair Oaks Blvd between California Blvd and Pico St	26,100	2%	26,622	23	26,645	0.1%	2.5%	NO	5.0%	NO
4. California Blvd between Fair Oaks Ave and Edmondson Alley	22,125	2%	22,568	33	22,600	0.1%	2.5%	NO	5.0%	NO

[a] Growth rate based on the City of Pasadena General Plan Mobility Element forecast model.

STREET SEGMENT IMPACT SIGNIFICANCE CRITERIA

The City of Pasadena has established criteria for determining significant impacts on street segments. A street segment is deemed significantly impacted based on an increase in the projected average daily traffic (ADT) volumes as follows:

ADT Growth on Street Segment	Required Traffic Mitigation
0.0% - 2.4% ADT Growth	▪ Staff review
2.5% - 4.9% ADT Growth	▪ Soft mitigation required ▪ TDM, Rideshare, etc.
5.0% - 7.4% ADT Growth	▪ Soft mitigation required ▪ Physical mitigation may be required ▪ Project alternatives considered
7.5% + ADT Growth	▪ Soft mitigation required ▪ Extensive physical mitigation required ▪ Project alternatives considered

ASSESSMENT OF SIGNIFICANT TRAFFIC IMPACT

Using the threshold criteria established by the City of Pasadena, Table 7 shows the daily traffic analysis, which determines the proposed project's weekday street segment impacts. The project trips from the proposed project are expected to significantly impact Pico Street, west of Raymond Avenue by increasing its daily traffic by 8.2%. Based on the City's street segment significance criteria, the project requires soft and physical mitigation. The daily volumes with the project on Pico Street are expected to be modest, and the adjacent intersection at Raymond Avenue is projected to operate at LOS A during both the morning and evening peak hours. It is recommended that the project could contribute towards the citywide traffic monitoring program to monitor and manage traffic.

VI. PROJECT ACCESS, SITE CIRCULATION AND PARKING ANALYSIS

This chapter presents a review of the access and internal site circulation for the project. The analysis reflects the locations of proposed access points and discusses modifications or restrictions that may be necessary to ensure the safe movement of vehicles into and out of the site.

PROJECT ACCESS

There are two main access points to the site. A one-way driveway travels west to east across the lower portion of the site, connecting South Fair Oaks Avenue with Edmondson Alley. A second access is off of Edmondson Alley approximately 40 feet north of the one-way driveway. Edmondson Alley is assumed to be used for two-way travel providing access to California Boulevard to the north and Pico Street to the south. Edmondson Alley would be widened to serve vehicle traffic from the north and south.

Truck/Delivery Service

The loading service to the building would be provided in three off-street service bays along the southern access roadway. Trucks would access the bays from South Fair Oaks Avenue and exit the bays on Edmondson Alley to either Pico Street or California Boulevard. Analysis of truck turning paths for a single unit (SU) truck and a WB-40 articulated truck found inadequate turning radii for trucks exiting the site from the southern access roadway and turning left (northbound) or right (southbound) onto Edmondson Alley. Adjustments to the site plan's loading areas, trash areas and landscaping are needed to improve vehicle circulation on-site.

Results of the turning analysis are found in Appendix C.

ANALYSIS OF PROJECT PARKING IMPACTS

Evaluation of the potential parking impacts of the proposed project involves three steps:

1. Calculation of parking requirements based upon land use, as established by the City of Pasadena's Zoning Code (Code)
2. Calculation of available parking supply for the proposed project
3. Comparison of the Code specifications to the estimated supply

City of Pasadena Zoning Code Requirements

The Code establishes the parking requirement for the land uses contained within the proposed project. The Code (section 17.46.040) requires that three spaces per 1,000 sf be provided for office uses. For this proposed project, with approximately 113,200 sf of gross building area, the total required number of parking spaces is 340. In accordance with the Code (section 17.50.340.E), when a non-residential project is within a transit-oriented district, the required off-street parking should be reduced by 25%. Therefore, the final parking requirement for the project is 255 spaces.

Parking Supply

The proposed project would provide 255 parking spaces in a 2.5-level subterranean parking structure, which would satisfy the Code requirement. The proposed project would not have significant parking impacts on the adjacent streets.

VII. CONGESTION MANAGEMENT ANALYSIS

Additional intersection analyses were conducted to comply with the requirements in the Los Angeles County 2004 CMP. The Transportation Impact Analysis section in the CMP describes the threshold criteria used to identify potential CMP monitoring locations that should be included in the traffic analysis. According to the CMP criteria, the following locations must be analyzed:

- All CMP arterial monitoring intersections, including monitored freeway on- or off-ramp intersections, where the proposed project will add 50 or more trips during either the a.m. or p.m. weekday peak hours (of adjacent street traffic)

- All mainline freeway monitoring locations where the project will add 150 or more trips, in either direction, during either the weekday a.m. or p.m. peak hours

The nearest CMP monitoring intersection is at Arroyo Parkway & California Boulevard, and the three nearest CMP freeway monitoring locations are:

- I-210 Freeway at Rosemead Boulevard
- I-210 Freeway at Ventura Freeway 134
- Pasadena Freeway 110 at Pasadena Avenue

The four CMP locations closest to the project site did not satisfy the CMP threshold criteria described above. The project would add 27 a.m. peak hour and 17 p.m. peak hour trips at Arroyo Parkway & California Boulevard and fewer than 50 trips at any of the CMP freeway monitoring locations. Therefore, the project has no impact on the CMP system and no further analysis is required.

VIII. SUMMARY AND CONCLUSIONS

This study was undertaken to analyze potential traffic and parking impacts of the proposed 113,200 sf office project at 590-612 South Fair Oaks Avenue at 12-26 East California Boulevard. The following summarizes the key findings of the study:

- Peak hour capacity analyses were conducted for nine intersections on the street system in the vicinity of the project site. Under existing conditions, the intersection of Pasadena Avenue & California Avenue operates at LOS F during the p.m. peak hour. All other intersections currently operate at LOS D or better during the a.m. and p.m. peak hours.

- Under year 2010 cumulative base (i.e., no project) conditions, one study intersection operates at LOS E during the p.m. peak hour. The cumulative base forecasts include growth in the existing traffic volumes to reflect the effects of overall regional growth and development outside the study area and the traffic generated by specific related projects located within, or in the vicinity of, the study area.

- The proposed project is projected to generate approximately 1,246 daily trips, with 175 trips during the a.m. peak hour, and 169 trips during the p.m. peak hour. Applying credits for TDM, existing active and previous land uses, the net trip generation is 253 additional daily trips, including 113 additional a.m. peak hour trips and 40 additional p.m. peak hour trips.

- Analysis of projected year 2010 cumulative plus project conditions indicates that, using the significance criteria established by the City of Pasadena, the proposed project would not create any significant impacts at any study intersection.

- Potential traffic impacts were evaluated for four street segments. Based on application of the City of Pasadena significance criteria for street segment traffic impacts, the project exceeds the criteria for Pico Street between Edmondson Alley and Raymond Avenue. It is recommended that the project could contribute towards the citywide traffic monitoring program to monitor and manage traffic.

- Review of vehicle turning paths for a standard SU truck found inadequate turning radii for trucks turning left or right from the alley way to Edmondson Alley. Adjustments to the site plan's loading areas, trash areas and landscaping are needed to improve vehicle circulation on-site.

- The proposed parking supply of 255 spaces was found to meet the Code requirement.

- Analyses of potential impacts on the regional transportation system conducted in accordance with CMP requirements determined that the project would not have a significant impact on CMP arterial monitoring intersections or the mainline freeway system.

- The analysis recommends restrictions of turning movements into and out of the site. This could require placement of a modified curb or other median feature as approved by the City on Fair Oaks Avenue (restricting southbound left turns) at the west driveway and on California Boulevard (restricting northbound and westbound lefts) at the Edmondson Alley.

- The project shall comply fully with the City's Trip Reduction Ordinance designed to reduce the number of vehicle trips associated with the development.

REFERENCES

2004 Congestion Management Program for Los Angeles County, Los Angeles County Metropolitan Transportation Authority, July 2004.

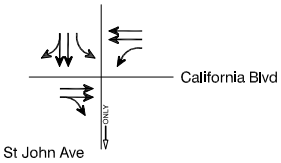
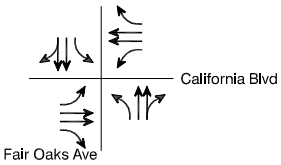
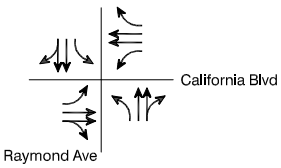
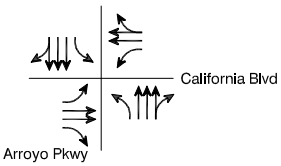
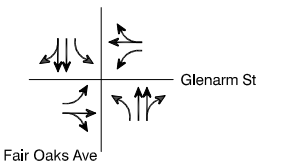
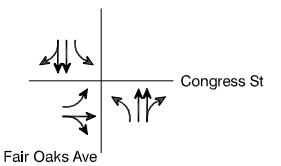
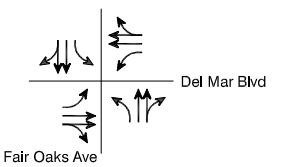
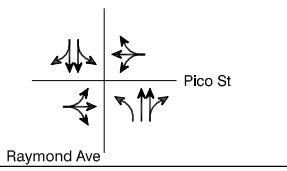
City of Pasadena Municipal Code (Chapter 17 – Zoning), City of Pasadena, February 26, 2005.

Transportation Impact Review Current Practice & Guidelines, City of Pasadena, 2005.

Trip Generation, 7th Edition, Institute of Transportation Engineers, 2003.

APPENDIX A

INTERSECTION CONFIGURATIONS

	EXISTING CONDITIONS	FUTURE CONDITIONS
1. St John Ave & California Blvd		Same As Existing Conditions
2. Pasadena Ave & California Blvd		Same As Existing Conditions
3. Fair Oaks Ave & California Blvd		Same As Existing Conditions
4. Raymond Ave & California Blvd		Same As Existing Conditions
5. Arroyo Pkwy & California Blvd		Same As Existing Conditions
6. Fair Oaks Ave & Glenarm St		Same As Existing Conditions
7. Fair Oaks Ave & Congress St		Same As Existing Conditions
8. Fair Oaks Ave & Del Mar Blvd		Same As Existing Conditions
9. Raymond Ave & Pico St		Same As Existing Conditions

APPENDIX B

INTERSECTION LEVEL OF SERVICE WORKSHEETS

Project Title: **CALIFORNIA FAIR OAKS OFFICE BUILDING**
Intersection: **ST JOHN AVE AND CALIFORNIA BLVD**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	174	0	0.000	N-S(1):	0.494 *
	TH	2.00	1,275	3,400	0.426	N-S(2):	0.426
	LT	1.00	840	1,700	0.494 *	E-W(1):	0.158 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.057
	TH	2.00	195	3,400	0.057		
	LT	1.00	40	1,700	0.024 *	V/C:	0.652
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.050
	TH	0.00	0	0	0.000 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	39	0	0.000	ICU:	0.702
	TH	2.00	416	3,400	0.134 *		
	LT	0.00	0	0	0.000	LOS:	C

Date/Time: **PM PEAK HOUR (5:00-6:00)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	166	0	0.000	N-S(1):	0.381
	TH	2.00	1,247	3,400	0.416 *	N-S(2):	0.416 *
	LT	1.00	647	1,700	0.381	E-W(1):	0.172 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.113
	TH	2.00	383	3,400	0.113		
	LT	1.00	60	1,700	0.035 *	V/C:	0.588
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.050
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	0.00	0	0	0.000 *		
Eastbound	RT	0.00	44	0	0.000	ICU:	0.638
	TH	2.00	421	3,400	0.137 *		
	LT	0.00	0	0	0.000	LOS:	B

* - Denotes critical movement

Project Title: CALIFORNIA FAIR OAKS OFFICE BUILDING
Intersection: PASADENA AVE AND CALIFORNIA BLVD
Description: EXISTING CONDITIONS

Date/Time: AM PEAK HOUR (7:30-8:30)

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.296 *
	TH	0.00	0	0	0.000	N-S(2):	0.015
	LT	0.00	0	0	0.000 *	E-W(1):	0.300
Westbound	RT	1.00	517	1,700	0.304 *	E-W(2):	0.436 *
	TH	2.00	205	3,400	0.060		
	LT	0.00	0	0	0.000	V/C:	0.732
Northbound	RT	0.00	52	0	0.000	Lost Time:	0.050
	TH	3.00	1,456	5,100	0.296 *	ITS:	0.000
	LT	1.00	25	1,700	0.015		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.782
	TH	2.00	1,019	3,400	0.300		
	LT	1.00	225	1,700	0.132 *	LOS:	C

Date/Time: PM PEAK HOUR (5:00-6:00)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.355 *
	TH	0.00	0	0	0.000	N-S(2):	0.026
	LT	0.00	0	0	0.000 *	E-W(1):	0.235
Westbound	RT	1.00	625	1,700	0.368 *	E-W(2):	0.525 *
	TH	2.00	401	3,400	0.118		
	LT	0.00	0	0	0.000	V/C:	0.880
Northbound	RT	0.00	65	0	0.000	Lost Time:	0.050
	TH	3.00	1,745	5,100	0.355 *	ITS:	0.000
	LT	1.00	44	1,700	0.026		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.930
	TH	2.00	798	3,400	0.235		
	LT	1.00	267	1,700	0.157 *	LOS:	E

* - Denotes critical movement

Project Title: CALIFORNIA FAIR OAKS OFFICE BUILDING
Intersection: FAIR OAKS AVE AND CALIFORNIA BLVD
Description: EXISTING CONDITIONS

Date/Time: AM PEAK HOUR (7:30-8:30)

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	88	0	0.000	N-S(1):	0.298
	TH	2.00	704	3,400	0.233 *	N-S(2):	0.354 *
	LT	1.00	49	1,700	0.029	E-W(1):	0.265 *
Westbound	RT	0.00	76	0	0.000	E-W(2):	0.224
	TH	2.00	524	3,400	0.176		
	LT	1.00	198	1,700	0.116 *	V/C:	0.619
Northbound	RT	0.00	112	0	0.000	Lost Time:	0.050
	TH	2.00	802	3,400	0.269	ITS:	0.000
	LT	1.00	205	1,700	0.121 *		
Eastbound	RT	1.00	275	1,700	0.101	ICU:	0.669
	TH	2.00	506	3,400	0.149 *		
	LT	1.00	81	1,700	0.048	LOS:	B

Date/Time: PM PEAK HOUR (5:00-6:00)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	105	0	0.000	N-S(1):	0.362
	TH	2.00	891	3,400	0.293 *	N-S(2):	0.429 *
	LT	1.00	97	1,700	0.057	E-W(1):	0.271
Westbound	RT	0.00	82	0	0.000	E-W(2):	0.280 *
	TH	2.00	681	3,400	0.224 *		
	LT	1.00	148	1,700	0.087	V/C:	0.709
Northbound	RT	0.00	135	0	0.000	Lost Time:	0.050
	TH	2.00	901	3,400	0.305	ITS:	0.000
	LT	1.00	232	1,700	0.136 *		
Eastbound	RT	1.00	219	1,700	0.061	ICU:	0.759
	TH	2.00	627	3,400	0.184		
	LT	1.00	96	1,700	0.056 *	LOS:	C

* - Denotes critical movement

Project Title: CALIFORNIA FAIR OAKS OFFICE BUILDING
Intersection: RAYMOND AVE AND CALIFORNIA BLVD
Description: EXISTING CONDITIONS

Date/Time: AM PEAK HOUR (7:30-8:30)

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	18	0	0.000	N-S(1):	0.064 *
	TH	2.00	114	3,400	0.039	N-S(2):	0.048
	LT	1.00	16	1,700	0.009 *	E-W(1):	0.207
Westbound	RT	1.00	125	1,700	0.069	E-W(2):	0.237 *
	TH	2.00	714	3,400	0.210 *		
	LT	1.00	52	1,700	0.031	V/C:	0.301
Northbound	RT	0.00	21	0	0.000	Lost Time:	0.050
	TH	2.00	166	3,400	0.055 *	ITS:	0.000
	LT	1.00	15	1,700	0.009		
Eastbound	RT	0.00	39	0	0.000	ICU:	0.351
	TH	2.00	558	3,400	0.176		
	LT	1.00	46	1,700	0.027 *	LOS:	A

Date/Time: PM PEAK HOUR (5:00-6:00)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	73	0	0.000	N-S(1):	0.200 *
	TH	2.00	218	3,400	0.086	N-S(2):	0.122
	LT	1.00	110	1,700	0.065 *	E-W(1):	0.219
Westbound	RT	1.00	72	1,700	0.010	E-W(2):	0.236 *
	TH	2.00	697	3,400	0.205 *		
	LT	1.00	48	1,700	0.028	V/C:	0.436
Northbound	RT	0.00	138	0	0.000	Lost Time:	0.050
	TH	2.00	322	3,400	0.135 *	ITS:	0.000
	LT	1.00	61	1,700	0.036		
Eastbound	RT	0.00	32	0	0.000	ICU:	0.486
	TH	2.00	619	3,400	0.191		
	LT	1.00	53	1,700	0.031 *	LOS:	A

* - Denotes critical movement

Project Title: **CALIFORNIA FAIR OAKS OFFICE BUILDING**
Intersection: **ARROYO PKWY AND CALIFORNIA BLVD**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	44	0	0.000	N-S(1):	0.229
	TH	3.00	932	5,100	0.191 *	N-S(2):	0.269 *
	LT	1.00	22	1,700	0.013	E-W(1):	0.316 *
Westbound	RT	0.00	29	0	0.000	E-W(2):	0.249
	TH	2.00	737	3,400	0.225		
	LT	1.00	332	1,700	0.195 *	V/C:	0.585
Northbound	RT	0.00	166	0	0.000	Lost Time:	0.050
	TH	3.00	938	5,100	0.216	ITS:	0.000
	LT	1.00	132	1,700	0.078 *		
Eastbound	RT	1.00	137	1,700	0.042	ICU:	0.635
	TH	2.00	410	3,400	0.121 *		
	LT	1.00	40	1,700	0.024	LOS:	B

Date/Time: **PM PEAK HOUR (5:00-6:00)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	83	0	0.000	N-S(1):	0.229
	TH	3.00	1,398	5,100	0.290 *	N-S(2):	0.386 *
	LT	1.00	43	1,700	0.025	E-W(1):	0.353 *
Westbound	RT	0.00	26	0	0.000	E-W(2):	0.205
	TH	2.00	581	3,400	0.179		
	LT	1.00	253	1,700	0.149 *	V/C:	0.739
Northbound	RT	0.00	191	0	0.000	Lost Time:	0.050
	TH	3.00	848	5,100	0.204	ITS:	0.000
	LT	1.00	164	1,700	0.096 *		
Eastbound	RT	1.00	112	1,700	0.018	ICU:	0.789
	TH	2.00	695	3,400	0.204 *		
	LT	1.00	45	1,700	0.026	LOS:	C

* - Denotes critical movement

Project Title: **CALIFORNIA FAIR OAKS OFFICE BUILDING**
Intersection: **FAIR OAKS AVE AND GLENARM ST**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	17	0	0.000	N-S(1):	0.559 *
	TH	2.00	877	3,400	0.263	N-S(2):	0.315
	LT	1.00	121	1,700	0.071 *	E-W(1):	0.166
Westbound	RT	0.00	76	0	0.000	E-W(2):	0.168 *
	TH	1.00	194	1,700	0.159 *		
	LT	1.00	116	1,700	0.068	V/C:	0.727
Northbound	RT	0.00	271	0	0.000	Lost Time:	0.050
	TH	2.00	1,387	3,400	0.488 *	ITS:	0.000
	LT	1.00	89	1,700	0.052		
Eastbound	RT	0.00	13	0	0.000	ICU:	0.777
	TH	1.00	154	1,700	0.098		
	LT	1.00	16	1,700	0.009 *	LOS:	C

Date/Time: **PM PEAK HOUR (5:00-6:00)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	31	0	0.000	N-S(1):	0.515 *
	TH	2.00	1,297	3,400	0.391	N-S(2):	0.419
	LT	1.00	172	1,700	0.101 *	E-W(1):	0.235 *
Westbound	RT	0.00	49	0	0.000	E-W(2):	0.168
	TH	1.00	226	1,700	0.162		
	LT	1.00	207	1,700	0.122 *	V/C:	0.750
Northbound	RT	0.00	254	0	0.000	Lost Time:	0.050
	TH	2.00	1,153	3,400	0.414 *	ITS:	0.000
	LT	1.00	48	1,700	0.028		
Eastbound	RT	0.00	21	0	0.000	ICU:	0.800
	TH	1.00	171	1,700	0.113 *		
	LT	1.00	10	1,700	0.006	LOS:	C

* - Denotes critical movement

Project Title: CALIFORNIA FAIR OAKS OFFICE BUILDING
Intersection: FAIR OAKS AVE AND DEL MAR BLVD
Description: EXISTING CONDITIONS

Date/Time: AM PEAK HOUR (7:30-8:30)

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	76	0	0.000	N-S(1):	0.320
	TH	2.00	1,001	3,400	0.317 *	N-S(2):	0.337 *
	LT	1.00	0	1,700	0.000	E-W(1):	0.015
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.016 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.353
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.050
	TH	2.00	1,087	3,400	0.320	ITS:	0.000
	LT	1.00	34	1,700	0.020 *		
Eastbound	RT	0.00	26	0	0.000	ICU:	0.403
	TH	1.00	0	1,700	0.015		
	LT	1.00	27	1,700	0.016 *	LOS:	A

Date/Time: PM PEAK HOUR (5:00-6:00)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	39	0	0.000	N-S(1):	0.347
	TH	2.00	1,225	3,400	0.372 *	N-S(2):	0.388 *
	LT	1.00	0	1,700	0.000	E-W(1):	0.026
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.038 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.426
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.050
	TH	2.00	1,179	3,400	0.347	ITS:	0.000
	LT	1.00	28	1,700	0.016 *		
Eastbound	RT	0.00	45	0	0.000	ICU:	0.476
	TH	1.00	0	1,700	0.026		
	LT	1.00	64	1,700	0.038 *	LOS:	A

* - Denotes critical movement

Project Title: **CALIFORNIA FAIR OAKS OFFICE BUILDING**
Intersection: **RAYMOND AVE AND PICO ST**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	24	0	0.000	N-S(1):	0.230
	TH	2.00	726	3,400	0.221 *	N-S(2):	0.258 *
	LT	1.00	55	1,700	0.032	E-W(1):	0.276
Westbound	RT	0.00	39	0	0.000	E-W(2):	0.315 *
	TH	2.00	639	3,400	0.199 *		
	LT	1.00	150	1,700	0.088	V/C:	0.573
Northbound	RT	0.00	132	0	0.000	Lost Time:	0.050
	TH	2.00	542	3,400	0.198	ITS:	0.000
	LT	1.00	63	1,700	0.037 *		
Eastbound	RT	0.00	44	0	0.000	ICU:	0.623
	TH	2.00	595	3,400	0.188		
	LT	1.00	198	1,700	0.116 *	LOS:	B

Date/Time: **PM PEAK HOUR (5:00-6:00)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	39	0	0.000	N-S(1):	0.315 *
	TH	2.00	719	3,400	0.223	N-S(2):	0.300
	LT	1.00	106	1,700	0.062 *	E-W(1):	0.325
Westbound	RT	0.00	54	0	0.000	E-W(2):	0.417 *
	TH	2.00	970	3,400	0.301 *		
	LT	1.00	204	1,700	0.120	V/C:	0.732
Northbound	RT	0.00	133	0	0.000	Lost Time:	0.050
	TH	2.00	728	3,400	0.253 *	ITS:	0.000
	LT	1.00	131	1,700	0.077		
Eastbound	RT	0.00	71	0	0.000	ICU:	0.782
	TH	2.00	627	3,400	0.205		
	LT	1.00	198	1,700	0.116 *	LOS:	C

* - Denotes critical movement

Project Title: **CALIFORNIA FAIR OAKS OFFICE BUILDING**
Intersection: **RAYMOND AVE AND PICO ST**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	16	0	0.000	N-S(1):	0.115
	TH	2.00	371	3,400	0.119 *	N-S(2):	0.121 *
	LT	0.00	16	1,700	0.009	E-W(1):	0.024 *
Westbound	RT	0.00	5	0	0.000	E-W(2):	0.012
	TH	1.00	0	1,700	0.003		
	LT	0.00	0	0	0.000 *	V/C:	0.145
Northbound	RT	0.00	4	0	0.000	Lost Time:	0.050
	TH	2.00	354	3,400	0.106	ITS:	0.000
	LT	0.00	4	1,700	0.002 *		
Eastbound	RT	0.00	19	0	0.000	ICU:	0.195
	TH	1.00	5	1,700	0.024 *		
	LT	0.00	16	1,700	0.009	LOS:	A

Date/Time: **PM PEAK HOUR (5:00-6:00)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	29	0	0.000	N-S(1):	0.164 *
	TH	2.00	422	3,400	0.134	N-S(2):	0.138
	LT	0.00	4	1,700	0.002 *	E-W(1):	0.033
Westbound	RT	0.00	10	0	0.000	E-W(2):	0.034 *
	TH	1.00	0	1,700	0.007 *		
	LT	0.00	2	1,700	0.001	V/C:	0.198
Northbound	RT	0.00	1	0	0.000	Lost Time:	0.050
	TH	2.00	542	3,400	0.162 *	ITS:	0.000
	LT	0.00	7	1,700	0.004		
Eastbound	RT	0.00	8	0	0.000	ICU:	0.248
	TH	1.00	0	1,700	0.032		
	LT	0.00	46	1,700	0.027 *	LOS:	A

* - Denotes critical movement

Project Title: CALIFORNIA FAIR OAKS OFFICE BUILDING
Intersection: ST JOHN AVE AND CALIFORNIA BLVD
Description: CUMULATIVE BASE

Date/Time: AM PEAK HOUR (7:30-8:30)

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	179	0	0.000	N-S(1):	0.509 *
	TH	2.00	1,313	3,400	0.439	N-S(2):	0.439
	LT	1.00	865	1,700	0.509 *	E-W(1):	0.162 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.059
	TH	2.00	201	3,400	0.059		
	LT	1.00	41	1,700	0.024 *	V/C:	0.671
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.050
	TH	0.00	0	0	0.000 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	40	0	0.000	ICU:	0.721
	TH	2.00	428	3,400	0.138 *		
	LT	0.00	0	0	0.000	LOS:	C

Date/Time: PM PEAK HOUR (5:00-6:00)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	171	0	0.000	N-S(1):	0.392
	TH	2.00	1,284	3,400	0.428 *	N-S(2):	0.428 *
	LT	1.00	666	1,700	0.392	E-W(1):	0.177 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.116
	TH	2.00	394	3,400	0.116		
	LT	1.00	62	1,700	0.036 *	V/C:	0.605
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.050
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	0.00	0	0	0.000 *		
Eastbound	RT	0.00	45	0	0.000	ICU:	0.655
	TH	2.00	434	3,400	0.141 *		
	LT	0.00	0	0	0.000	LOS:	B

* - Denotes critical movement

Project Title: CALIFORNIA FAIR OAKS OFFICE BUILDING
Intersection: PASADENA AVE AND CALIFORNIA BLVD
Description: CUMULATIVE BASE

Date/Time: AM PEAK HOUR (7:30-8:30)

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.305 *
	TH	0.00	0	0	0.000	N-S(2):	0.015
	LT	0.00	0	0	0.000 *	E-W(1):	0.309
Westbound	RT	1.00	533	1,700	0.314 *	E-W(2):	0.450 *
	TH	2.00	211	3,400	0.062		
	LT	0.00	0	0	0.000	V/C:	0.755
Northbound	RT	0.00	54	0	0.000	Lost Time:	0.050
	TH	3.00	1,500	5,100	0.305 *	ITS:	0.000
	LT	1.00	26	1,700	0.015		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.805
	TH	2.00	1,050	3,400	0.309		
	LT	1.00	232	1,700	0.136 *	LOS:	D

Date/Time: PM PEAK HOUR (5:00-6:00)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.365 *
	TH	0.00	0	0	0.000	N-S(2):	0.026
	LT	0.00	0	0	0.000 *	E-W(1):	0.242
Westbound	RT	1.00	644	1,700	0.379 *	E-W(2):	0.541 *
	TH	2.00	413	3,400	0.121		
	LT	0.00	0	0	0.000	V/C:	0.906
Northbound	RT	0.00	67	0	0.000	Lost Time:	0.050
	TH	3.00	1,797	5,100	0.365 *	ITS:	0.000
	LT	1.00	45	1,700	0.026		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.956
	TH	2.00	822	3,400	0.242		
	LT	1.00	275	1,700	0.162 *	LOS:	E

* - Denotes critical movement

Project Title: CALIFORNIA FAIR OAKS OFFICE BUILDING
Intersection: FAIR OAKS AVE AND CALIFORNIA BLVD
Description: CUMULATIVE BASE

Date/Time: AM PEAK HOUR (7:30-8:30)

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	91	0	0.000	N-S(1):	0.315
	TH	2.00	804	3,400	0.263 *	N-S(2):	0.387 *
	LT	1.00	50	1,700	0.029	E-W(1):	0.273 *
Westbound	RT	0.00	78	0	0.000	E-W(2):	0.231
	TH	2.00	540	3,400	0.182		
	LT	1.00	204	1,700	0.120 *	V/C:	0.660
Northbound	RT	0.00	115	0	0.000	Lost Time:	0.050
	TH	2.00	856	3,400	0.286	ITS:	0.000
	LT	1.00	211	1,700	0.124 *		
Eastbound	RT	1.00	283	1,700	0.104	ICU:	0.710
	TH	2.00	521	3,400	0.153 *		
	LT	1.00	83	1,700	0.049	LOS:	C

Date/Time: PM PEAK HOUR (5:00-6:00)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	108	0	0.000	N-S(1):	0.396
	TH	2.00	948	3,400	0.311 *	N-S(2):	0.452 *
	LT	1.00	100	1,700	0.059	E-W(1):	0.279
Westbound	RT	0.00	84	0	0.000	E-W(2):	0.289 *
	TH	2.00	701	3,400	0.231 *		
	LT	1.00	152	1,700	0.089	V/C:	0.741
Northbound	RT	0.00	139	0	0.000	Lost Time:	0.050
	TH	2.00	1,007	3,400	0.337	ITS:	0.000
	LT	1.00	239	1,700	0.141 *		
Eastbound	RT	1.00	226	1,700	0.063	ICU:	0.791
	TH	2.00	646	3,400	0.190		
	LT	1.00	99	1,700	0.058 *	LOS:	C

* - Denotes critical movement

Project Title: CALIFORNIA FAIR OAKS OFFICE BUILDING
Intersection: RAYMOND AVE AND CALIFORNIA BLVD
Description: CUMULATIVE BASE

Date/Time: AM PEAK HOUR (7:30-8:30)

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	19	0	0.000	N-S(1):	0.066 *
	TH	2.00	117	3,400	0.040	N-S(2):	0.049
	LT	1.00	16	1,700	0.009 *	E-W(1):	0.213
Westbound	RT	1.00	129	1,700	0.071	E-W(2):	0.244 *
	TH	2.00	735	3,400	0.216 *		
	LT	1.00	54	1,700	0.032	V/C:	0.310
Northbound	RT	0.00	22	0	0.000	Lost Time:	0.050
	TH	2.00	171	3,400	0.057 *	ITS:	0.000
	LT	1.00	15	1,700	0.009		
Eastbound	RT	0.00	40	0	0.000	ICU:	0.360
	TH	2.00	575	3,400	0.181		
	LT	1.00	47	1,700	0.028 *	LOS:	A

Date/Time: PM PEAK HOUR (5:00-6:00)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	75	0	0.000	N-S(1):	0.205 *
	TH	2.00	225	3,400	0.088	N-S(2):	0.125
	LT	1.00	113	1,700	0.066 *	E-W(1):	0.226
Westbound	RT	1.00	74	1,700	0.010	E-W(2):	0.243 *
	TH	2.00	718	3,400	0.211 *		
	LT	1.00	49	1,700	0.029	V/C:	0.448
Northbound	RT	0.00	142	0	0.000	Lost Time:	0.050
	TH	2.00	332	3,400	0.139 *	ITS:	0.000
	LT	1.00	63	1,700	0.037		
Eastbound	RT	0.00	33	0	0.000	ICU:	0.498
	TH	2.00	638	3,400	0.197		
	LT	1.00	55	1,700	0.032 *	LOS:	A

* - Denotes critical movement

Project Title: CALIFORNIA FAIR OAKS OFFICE BUILDING
Intersection: ARROYO PKWY AND CALIFORNIA BLVD
Description: CUMULATIVE BASE

Date/Time: AM PEAK HOUR (7:30-8:30)

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	45	0	0.000	N-S(1):	0.240
	TH	3.00	971	5,100	0.199 *	N-S(2):	0.279 *
	LT	1.00	23	1,700	0.014	E-W(1):	0.325 *
Westbound	RT	0.00	30	0	0.000	E-W(2):	0.256
	TH	2.00	759	3,400	0.232		
	LT	1.00	342	1,700	0.201 *	V/C:	0.604
Northbound	RT	0.00	171	0	0.000	Lost Time:	0.050
	TH	3.00	980	5,100	0.226	ITS:	0.000
	LT	1.00	136	1,700	0.080 *		
Eastbound	RT	1.00	141	1,700	0.043	ICU:	0.654
	TH	2.00	422	3,400	0.124 *		
	LT	1.00	41	1,700	0.024	LOS:	B

Date/Time: PM PEAK HOUR (5:00-6:00)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	85	0	0.000	N-S(1):	0.238
	TH	3.00	1,445	5,100	0.300 *	N-S(2):	0.399 *
	LT	1.00	44	1,700	0.026	E-W(1):	0.365 *
Westbound	RT	0.00	27	0	0.000	E-W(2):	0.211
	TH	2.00	598	3,400	0.184		
	LT	1.00	261	1,700	0.154 *	V/C:	0.764
Northbound	RT	0.00	197	0	0.000	Lost Time:	0.050
	TH	3.00	884	5,100	0.212	ITS:	0.000
	LT	1.00	169	1,700	0.099 *		
Eastbound	RT	1.00	115	1,700	0.018	ICU:	0.814
	TH	2.00	716	3,400	0.211 *		
	LT	1.00	46	1,700	0.027	LOS:	D

* - Denotes critical movement

Project Title: CALIFORNIA FAIR OAKS OFFICE BUILDING
Intersection: FAIR OAKS AVE AND GLENARM ST
Description: CUMULATIVE BASE

Date/Time: AM PEAK HOUR (7:30-8:30)

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	84	0	0.000	N-S(1):	0.580 *
	TH	2.00	916	3,400	0.294	N-S(2):	0.348
	LT	1.00	125	1,700	0.074 *	E-W(1):	0.181
Westbound	RT	0.00	78	0	0.000	E-W(2):	0.221 *
	TH	1.00	263	1,700	0.201 *		
	LT	1.00	119	1,700	0.070	V/C:	0.801
Northbound	RT	0.00	279	0	0.000	Lost Time:	0.050
	TH	2.00	1,441	3,400	0.506 *	ITS:	0.000
	LT	1.00	92	1,700	0.054		
Eastbound	RT	0.00	13	0	0.000	ICU:	0.851
	TH	1.00	175	1,700	0.111		
	LT	1.00	34	1,700	0.020 *	LOS:	D

Date/Time: PM PEAK HOUR (5:00-6:00)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	57	0	0.000	N-S(1):	0.532 *
	TH	2.00	1,341	3,400	0.411	N-S(2):	0.440
	LT	1.00	177	1,700	0.104 *	E-W(1):	0.282 *
Westbound	RT	0.00	50	0	0.000	E-W(2):	0.229
	TH	1.00	257	1,700	0.181		
	LT	1.00	213	1,700	0.125 *	V/C:	0.814
Northbound	RT	0.00	262	0	0.000	Lost Time:	0.050
	TH	2.00	1,194	3,400	0.428 *	ITS:	0.000
	LT	1.00	49	1,700	0.029		
Eastbound	RT	0.00	22	0	0.000	ICU:	0.864
	TH	1.00	245	1,700	0.157 *		
	LT	1.00	82	1,700	0.048	LOS:	D

* - Denotes critical movement

Project Title: **CALIFORNIA FAIR OAKS OFFICE BUILDING**
Intersection: **FAIR OAKS AVE AND CONGRESS ST**
Description: **CUMULATIVE BASE**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	78	0	0.000	N-S(1):	0.338
	TH	2.00	1,110	3,400	0.349 *	N-S(2):	0.370 *
	LT	1.00	0	1,700	0.000	E-W(1):	0.016 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.016 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000 *	V/C:	0.386
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.050
	TH	2.00	1,150	3,400	0.338	ITS:	0.000
	LT	1.00	35	1,700	0.021 *		
Eastbound	RT	0.00	27	0	0.000	ICU:	0.436
	TH	1.00	0	1,700	0.016 *		
	LT	1.00	28	1,700	0.016 *	LOS:	A

Date/Time: **PM PEAK HOUR (5:00-6:00)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	40	0	0.000	N-S(1):	0.380
	TH	2.00	1,292	3,400	0.392 *	N-S(2):	0.409 *
	LT	1.00	0	1,700	0.000	E-W(1):	0.027
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.039 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.448
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.050
	TH	2.00	1,293	3,400	0.380	ITS:	0.000
	LT	1.00	29	1,700	0.017 *		
Eastbound	RT	0.00	46	0	0.000	ICU:	0.498
	TH	1.00	0	1,700	0.027		
	LT	1.00	66	1,700	0.039 *	LOS:	A

* - Denotes critical movement

Project Title: CALIFORNIA FAIR OAKS OFFICE BUILDING
Intersection: FAIR OAKS AVE AND DEL MAR BLVD
Description: CUMULATIVE BASE

Date/Time: AM PEAK HOUR (7:30-8:30)

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	25	0	0.000	N-S(1):	0.255
	TH	2.00	827	3,400	0.251 *	N-S(2):	0.289 *
	LT	1.00	72	1,700	0.042	E-W(1):	0.288
Westbound	RT	0.00	55	0	0.000	E-W(2):	0.333 *
	TH	2.00	668	3,400	0.213 *		
	LT	1.00	155	1,700	0.091	V/C:	0.622
Northbound	RT	0.00	136	0	0.000	Lost Time:	0.050
	TH	2.00	588	3,400	0.213	ITS:	0.000
	LT	1.00	65	1,700	0.038 *		
Eastbound	RT	0.00	45	0	0.000	ICU:	0.672
	TH	2.00	625	3,400	0.197		
	LT	1.00	204	1,700	0.120 *	LOS:	B

Date/Time: PM PEAK HOUR (5:00-6:00)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	40	0	0.000	N-S(1):	0.352 *
	TH	2.00	771	3,400	0.239	N-S(2):	0.318
	LT	1.00	116	1,700	0.068 *	E-W(1):	0.338
Westbound	RT	0.00	63	0	0.000	E-W(2):	0.434 *
	TH	2.00	1,003	3,400	0.314 *		
	LT	1.00	210	1,700	0.124	V/C:	0.786
Northbound	RT	0.00	137	0	0.000	Lost Time:	0.050
	TH	2.00	829	3,400	0.284 *	ITS:	0.000
	LT	1.00	135	1,700	0.079		
Eastbound	RT	0.00	73	0	0.000	ICU:	0.836
	TH	2.00	655	3,400	0.214		
	LT	1.00	204	1,700	0.120 *	LOS:	D

* - Denotes critical movement

Project Title: **CALIFORNIA FAIR OAKS OFFICE BUILDING**
Intersection: **RAYMOND AVE AND PICO ST**
Description: **CUMULATIVE BASE**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	16	0	0.000	N-S(1):	0.119
	TH	2.00	382	3,400	0.122 *	N-S(2):	0.124 *
	LT	0.00	16	1,700	0.009	E-W(1):	0.024 *
Westbound	RT	0.00	5	0	0.000	E-W(2):	0.012
	TH	1.00	0	1,700	0.003		
	LT	0.00	0	0	0.000 *	V/C:	0.148
Northbound	RT	0.00	4	0	0.000	Lost Time:	0.050
	TH	2.00	365	3,400	0.110	ITS:	0.000
	LT	0.00	4	1,700	0.002 *		
Eastbound	RT	0.00	20	0	0.000	ICU:	0.198
	TH	1.00	5	1,700	0.024 *		
	LT	0.00	16	1,700	0.009	LOS:	A

Date/Time: **PM PEAK HOUR (5:00-6:00)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	30	0	0.000	N-S(1):	0.168 *
	TH	2.00	435	3,400	0.138	N-S(2):	0.142
	LT	0.00	4	1,700	0.002 *	E-W(1):	0.033
Westbound	RT	0.00	10	0	0.000	E-W(2):	0.035 *
	TH	1.00	0	1,700	0.007 *		
	LT	0.00	2	1,700	0.001	V/C:	0.203
Northbound	RT	0.00	1	0	0.000	Lost Time:	0.050
	TH	2.00	558	3,400	0.166 *	ITS:	0.000
	LT	0.00	7	1,700	0.004		
Eastbound	RT	0.00	8	0	0.000	ICU:	0.253
	TH	1.00	0	1,700	0.032		
	LT	0.00	47	1,700	0.028 *	LOS:	A

* - Denotes critical movement

Project Title: CALIFORNIA FAIR OAKS OFFICE BUILDING
Intersection: ST JOHN AVE AND CALIFORNIA BLVD
Description: CUMULATIVE BASE PLUS PROJECT

Date/Time: AM PEAK HOUR (7:30-8:30)

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	179	0	0.000	N-S(1):	0.516 *
	TH	2.00	1,313	3,400	0.439	N-S(2):	0.439
	LT	1.00	878	1,700	0.516 *	E-W(1):	0.162 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.059
	TH	2.00	201	3,400	0.059		
	LT	1.00	41	1,700	0.024 *	V/C:	0.678
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.050
	TH	0.00	0	0	0.000 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	40	0	0.000	ICU:	0.728
	TH	2.00	428	3,400	0.138 *		
	LT	0.00	0	0	0.000	LOS:	C

Date/Time: PM PEAK HOUR (5:00-6:00)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	171	0	0.000	N-S(1):	0.392
	TH	2.00	1,284	3,400	0.428 *	N-S(2):	0.428 *
	LT	1.00	666	1,700	0.392	E-W(1):	0.177 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.116
	TH	2.00	394	3,400	0.116		
	LT	1.00	62	1,700	0.036 *	V/C:	0.605
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.050
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	0.00	0	0	0.000 *		
Eastbound	RT	0.00	45	0	0.000	ICU:	0.655
	TH	2.00	434	3,400	0.141 *		
	LT	0.00	0	0	0.000	LOS:	B

* - Denotes critical movement

Project Title: CALIFORNIA FAIR OAKS OFFICE BUILDING
Intersection: PASADENA AVE AND CALIFORNIA BLVD
Description: CUMULATIVE BASE PLUS PROJECT

Date/Time: AM PEAK HOUR (7:30-8:30)

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.305 *
	TH	0.00	0	0	0.000	N-S(2):	0.015
	LT	0.00	0	0	0.000 *	E-W(1):	0.312
Westbound	RT	1.00	534	1,700	0.314 *	E-W(2):	0.450 *
	TH	2.00	211	3,400	0.062		
	LT	0.00	0	0	0.000	V/C:	0.755
Northbound	RT	0.00	54	0	0.000	Lost Time:	0.050
	TH	3.00	1,500	5,100	0.305 *	ITS:	0.000
	LT	1.00	26	1,700	0.015		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.805
	TH	2.00	1,062	3,400	0.312		
	LT	1.00	232	1,700	0.136 *	LOS:	D

Date/Time: PM PEAK HOUR (5:00-6:00)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.365 *
	TH	0.00	0	0	0.000	N-S(2):	0.026
	LT	0.00	0	0	0.000 *	E-W(1):	0.242
Westbound	RT	1.00	652	1,700	0.384 *	E-W(2):	0.546 *
	TH	2.00	413	3,400	0.121		
	LT	0.00	0	0	0.000	V/C:	0.911
Northbound	RT	0.00	67	0	0.000	Lost Time:	0.050
	TH	3.00	1,797	5,100	0.365 *	ITS:	0.000
	LT	1.00	45	1,700	0.026		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.961
	TH	2.00	822	3,400	0.242		
	LT	1.00	275	1,700	0.162 *	LOS:	E

* - Denotes critical movement

Project Title: CALIFORNIA FAIR OAKS OFFICE BUILDING
Intersection: FAIR OAKS AVE AND CALIFORNIA BLVD
Description: CUMULATIVE BASE PLUS PROJECT

Date/Time: AM PEAK HOUR (7:30-8:30)

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	91	0	0.000	N-S(1):	0.322
	TH	2.00	804	3,400	0.263 *	N-S(2):	0.388 *
	LT	1.00	61	1,700	0.036	E-W(1):	0.277 *
Westbound	RT	0.00	78	0	0.000	E-W(2):	0.231
	TH	2.00	540	3,400	0.182		
	LT	1.00	204	1,700	0.120 *	V/C:	0.665
Northbound	RT	0.00	115	0	0.000	Lost Time:	0.050
	TH	2.00	857	3,400	0.286	ITS:	0.000
	LT	1.00	212	1,700	0.125 *		
Eastbound	RT	1.00	283	1,700	0.104	ICU:	0.715
	TH	2.00	534	3,400	0.157 *		
	LT	1.00	83	1,700	0.049	LOS:	C

Date/Time: PM PEAK HOUR (5:00-6:00)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	108	0	0.000	N-S(1):	0.398
	TH	2.00	948	3,400	0.311 *	N-S(2):	0.455 *
	LT	1.00	100	1,700	0.059	E-W(1):	0.279
Westbound	RT	0.00	84	0	0.000	E-W(2):	0.290 *
	TH	2.00	704	3,400	0.232 *		
	LT	1.00	152	1,700	0.089	V/C:	0.745
Northbound	RT	0.00	139	0	0.000	Lost Time:	0.050
	TH	2.00	1,014	3,400	0.339	ITS:	0.000
	LT	1.00	244	1,700	0.144 *		
Eastbound	RT	1.00	226	1,700	0.061	ICU:	0.795
	TH	2.00	646	3,400	0.190		
	LT	1.00	99	1,700	0.058 *	LOS:	C

* - Denotes critical movement

Project Title: CALIFORNIA FAIR OAKS OFFICE BUILDING
Intersection: RAYMOND AVE AND CALIFORNIA BLVD
Description: CUMULATIVE BASE PLUS PROJECT

Date/Time: AM PEAK HOUR (7:30-8:30)

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	19	0	0.000	N-S(1):	0.066 *
	TH	2.00	132	3,400	0.044	N-S(2):	0.053
	LT	1.00	16	1,700	0.009 *	E-W(1):	0.228
Westbound	RT	1.00	129	1,700	0.071	E-W(2):	0.245 *
	TH	2.00	735	3,400	0.216 *		
	LT	1.00	78	1,700	0.046	V/C:	0.311
Northbound	RT	0.00	22	0	0.000	Lost Time:	0.050
	TH	2.00	171	3,400	0.057 *	ITS:	0.000
	LT	1.00	16	1,700	0.009		
Eastbound	RT	0.00	42	0	0.000	ICU:	0.361
	TH	2.00	577	3,400	0.182		
	LT	1.00	49	1,700	0.029 *	LOS:	A

Date/Time: PM PEAK HOUR (5:00-6:00)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	75	0	0.000	N-S(1):	0.205 *
	TH	2.00	225	3,400	0.088	N-S(2):	0.127
	LT	1.00	113	1,700	0.066 *	E-W(1):	0.235
Westbound	RT	1.00	74	1,700	0.010	E-W(2):	0.249 *
	TH	2.00	718	3,400	0.211 *		
	LT	1.00	49	1,700	0.029	V/C:	0.454
Northbound	RT	0.00	142	0	0.000	Lost Time:	0.050
	TH	2.00	332	3,400	0.139 *	ITS:	0.000
	LT	1.00	66	1,700	0.039		
Eastbound	RT	0.00	46	0	0.000	ICU:	0.504
	TH	2.00	654	3,400	0.206		
	LT	1.00	64	1,700	0.038 *	LOS:	A

* - Denotes critical movement

Project Title: **CALIFORNIA FAIR OAKS OFFICE BUILDING**
Intersection: **ARROYO PKWY AND CALIFORNIA BLVD**
Description: **CUMULATIVE BASE PLUS PROJECT**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	60	0	0.000	N-S(1):	0.240
	TH	3.00	971	5,100	0.202 *	N-S(2):	0.282 *
	LT	1.00	23	1,700	0.014	E-W(1):	0.325 *
Westbound	RT	0.00	30	0	0.000	E-W(2):	0.260
	TH	2.00	769	3,400	0.235		
	LT	1.00	342	1,700	0.201 *	V/C:	0.607
Northbound	RT	0.00	171	0	0.000	Lost Time:	0.050
	TH	3.00	980	5,100	0.226	ITS:	0.000
	LT	1.00	136	1,700	0.080 *		
Eastbound	RT	1.00	141	1,700	0.043	ICU:	0.657
	TH	2.00	423	3,400	0.124 *		
	LT	1.00	43	1,700	0.025	LOS:	B

Date/Time: **PM PEAK HOUR (5:00-6:00)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	85	0	0.000	N-S(1):	0.238
	TH	3.00	1,445	5,100	0.300 *	N-S(2):	0.399 *
	LT	1.00	44	1,700	0.026	E-W(1):	0.367 *
Westbound	RT	0.00	27	0	0.000	E-W(2):	0.217
	TH	2.00	598	3,400	0.184		
	LT	1.00	261	1,700	0.154 *	V/C:	0.766
Northbound	RT	0.00	197	0	0.000	Lost Time:	0.050
	TH	3.00	884	5,100	0.212	ITS:	0.000
	LT	1.00	169	1,700	0.099 *		
Eastbound	RT	1.00	115	1,700	0.018	ICU:	0.816
	TH	2.00	723	3,400	0.213 *		
	LT	1.00	56	1,700	0.033	LOS:	D

* - Denotes critical movement

Project Title: **CALIFORNIA FAIR OAKS OFFICE BUILDING**
Intersection: **FAIR OAKS AVE AND GLENARM ST**
Description: **CUMULATIVE BASE PLUS PROJECT**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	84	0	0.000	N-S(1):	0.580 *
	TH	2.00	916	3,400	0.294	N-S(2):	0.348
	LT	1.00	125	1,700	0.074 *	E-W(1):	0.182
Westbound	RT	0.00	92	0	0.000	E-W(2):	0.235 *
	TH	1.00	264	1,700	0.209 *		
	LT	1.00	120	1,700	0.071	V/C:	0.815
Northbound	RT	0.00	279	0	0.000	Lost Time:	0.050
	TH	2.00	1,443	3,400	0.506 *	ITS:	0.000
	LT	1.00	92	1,700	0.054		
Eastbound	RT	0.00	13	0	0.000	ICU:	0.865
	TH	1.00	175	1,700	0.111		
	LT	1.00	44	1,700	0.026 *	LOS:	D

Date/Time: **PM PEAK HOUR (5:00-6:00)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	57	0	0.000	N-S(1):	0.532 *
	TH	2.00	1,341	3,400	0.411	N-S(2):	0.440
	LT	1.00	177	1,700	0.104 *	E-W(1):	0.283 *
Westbound	RT	0.00	50	0	0.000	E-W(2):	0.232
	TH	1.00	263	1,700	0.184		
	LT	1.00	215	1,700	0.126 *	V/C:	0.815
Northbound	RT	0.00	262	0	0.000	Lost Time:	0.050
	TH	2.00	1,194	3,400	0.428 *	ITS:	0.000
	LT	1.00	49	1,700	0.029		
Eastbound	RT	0.00	22	0	0.000	ICU:	0.865
	TH	1.00	245	1,700	0.157 *		
	LT	1.00	82	1,700	0.048	LOS:	D

* - Denotes critical movement

Project Title: **CALIFORNIA FAIR OAKS OFFICE BUILDING**
Intersection: **FAIR OAKS AVE AND CONGRESS ST**
Description: **CUMULATIVE BASE PLUS PROJECT**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	78	0	0.000	N-S(1):	0.346
	TH	2.00	1,110	3,400	0.349 *	N-S(2):	0.370 *
	LT	1.00	0	1,700	0.000	E-W(1):	0.016 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.016 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000 *	V/C:	0.386
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.050
	TH	2.00	1,178	3,400	0.346	ITS:	0.000
	LT	1.00	35	1,700	0.021 *		
Eastbound	RT	0.00	27	0	0.000	ICU:	0.436
	TH	1.00	0	1,700	0.016 *		
	LT	1.00	28	1,700	0.016 *	LOS:	A

Date/Time: **PM PEAK HOUR (5:00-6:00)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	40	0	0.000	N-S(1):	0.380
	TH	2.00	1,293	3,400	0.392 *	N-S(2):	0.409 *
	LT	1.00	0	1,700	0.000	E-W(1):	0.027
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.039 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.448
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.050
	TH	2.00	1,293	3,400	0.380	ITS:	0.000
	LT	1.00	29	1,700	0.017 *		
Eastbound	RT	0.00	46	0	0.000	ICU:	0.498
	TH	1.00	0	1,700	0.027		
	LT	1.00	66	1,700	0.039 *	LOS:	A

* - Denotes critical movement

Project Title: CALIFORNIA FAIR OAKS OFFICE BUILDING
Intersection: FAIR OAKS AVE AND DEL MAR BLVD
Description: CUMULATIVE BASE PLUS PROJECT

Date/Time: AM PEAK HOUR (7:30-8:30)

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	25	0	0.000	N-S(1):	0.255
	TH	2.00	833	3,400	0.252 *	N-S(2):	0.290 *
	LT	1.00	72	1,700	0.042	E-W(1):	0.290
Westbound	RT	0.00	55	0	0.000	E-W(2):	0.333 *
	TH	2.00	668	3,400	0.213 *		
	LT	1.00	155	1,700	0.091	V/C:	0.623
Northbound	RT	0.00	136	0	0.000	Lost Time:	0.050
	TH	2.00	589	3,400	0.213	ITS:	0.000
	LT	1.00	65	1,700	0.038 *		
Eastbound	RT	0.00	49	0	0.000	ICU:	0.673
	TH	2.00	629	3,400	0.199		
	LT	1.00	204	1,700	0.120 *	LOS:	B

Date/Time: PM PEAK HOUR (5:00-6:00)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	40	0	0.000	N-S(1):	0.353 *
	TH	2.00	771	3,400	0.239	N-S(2):	0.320
	LT	1.00	116	1,700	0.068 *	E-W(1):	0.338
Westbound	RT	0.00	63	0	0.000	E-W(2):	0.434 *
	TH	2.00	1,006	3,400	0.314 *		
	LT	1.00	210	1,700	0.124	V/C:	0.787
Northbound	RT	0.00	137	0	0.000	Lost Time:	0.050
	TH	2.00	833	3,400	0.285 *	ITS:	0.000
	LT	1.00	138	1,700	0.081		
Eastbound	RT	0.00	73	0	0.000	ICU:	0.837
	TH	2.00	655	3,400	0.214		
	LT	1.00	204	1,700	0.120 *	LOS:	D

* - Denotes critical movement

Project Title: **CALIFORNIA FAIR OAKS OFFICE BUILDING**
Intersection: **RAYMOND AVE AND PICO ST**
Description: **CUMULATIVE BASE PLUS PROJECT**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1700 vph	N-S Split Phase :	N
Left Lane:	1700 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	5
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	56	0	0.000	N-S(1):	0.123
	TH	2.00	384	3,400	0.134 *	N-S(2):	0.145 *
	LT	0.00	16	1,700	0.009	E-W(1):	0.026 *
Westbound	RT	0.00	5	0	0.000	E-W(2):	0.013
	TH	1.00	0	1,700	0.003		
	LT	0.00	0	0	0.000 *	V/C:	0.171
Northbound	RT	0.00	4	0	0.000	Lost Time:	0.050
	TH	2.00	365	3,400	0.114	ITS:	0.000
	LT	0.00	18	1,700	0.011 *		
Eastbound	RT	0.00	22	0	0.000	ICU:	0.221
	TH	1.00	5	1,700	0.026 *		
	LT	0.00	17	1,700	0.010	LOS:	A

Date/Time: **PM PEAK HOUR (5:00-6:00)**

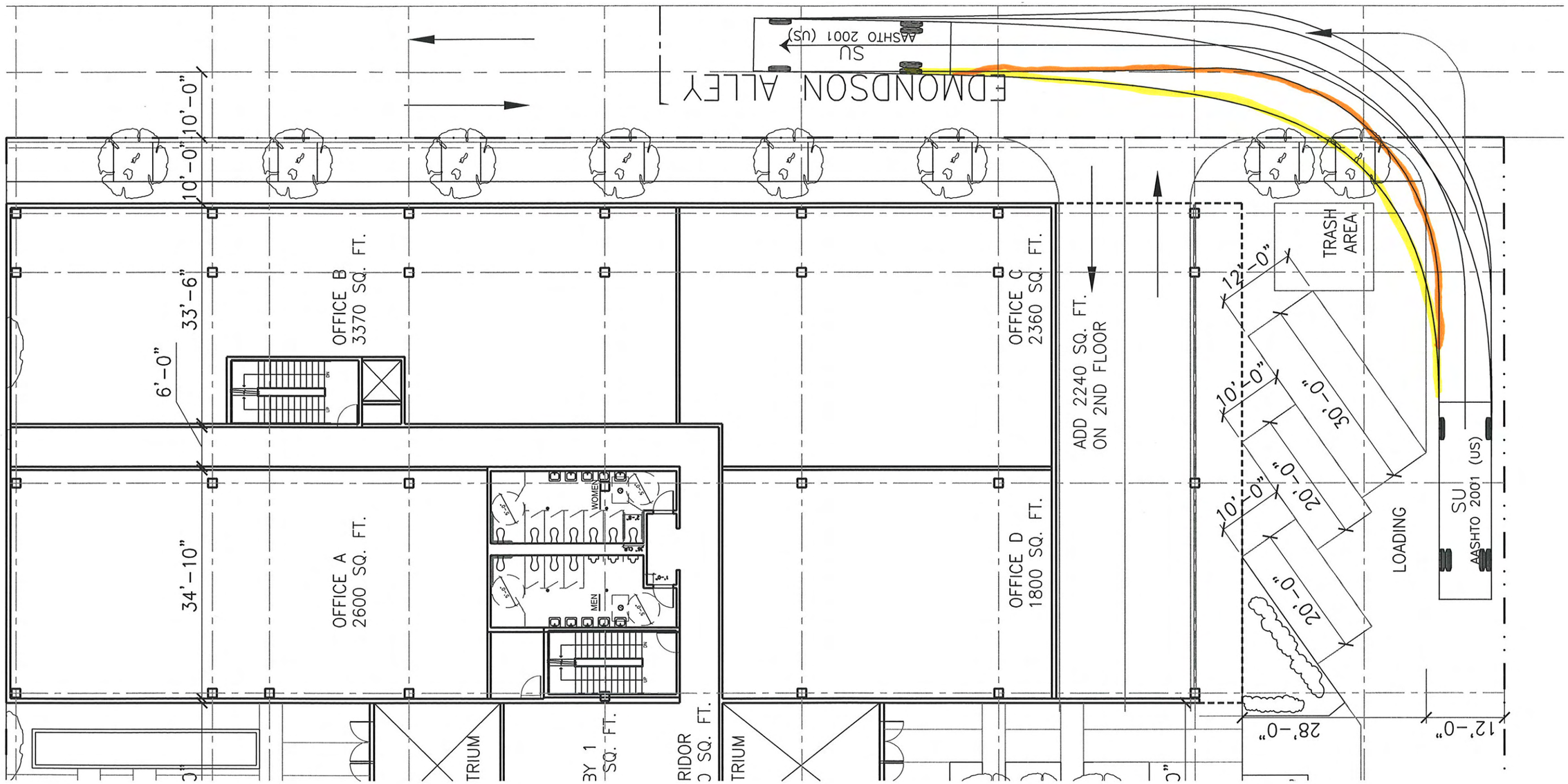
APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	30	0	0.000	N-S(1):	0.168 *
	TH	2.00	448	3,400	0.142	N-S(2):	0.146
	LT	0.00	4	1,700	0.002 *	E-W(1):	0.043 *
Westbound	RT	0.00	10	0	0.000	E-W(2):	0.036
	TH	1.00	0	1,700	0.007		
	LT	0.00	2	1,700	0.001 *	V/C:	0.211
Northbound	RT	0.00	1	0	0.000	Lost Time:	0.050
	TH	2.00	558	3,400	0.166 *	ITS:	0.000
	LT	0.00	7	1,700	0.004		
Eastbound	RT	0.00	21	0	0.000	ICU:	0.261
	TH	1.00	0	1,700	0.042 *		
	LT	0.00	50	1,700	0.029	LOS:	A

* - Denotes critical movement

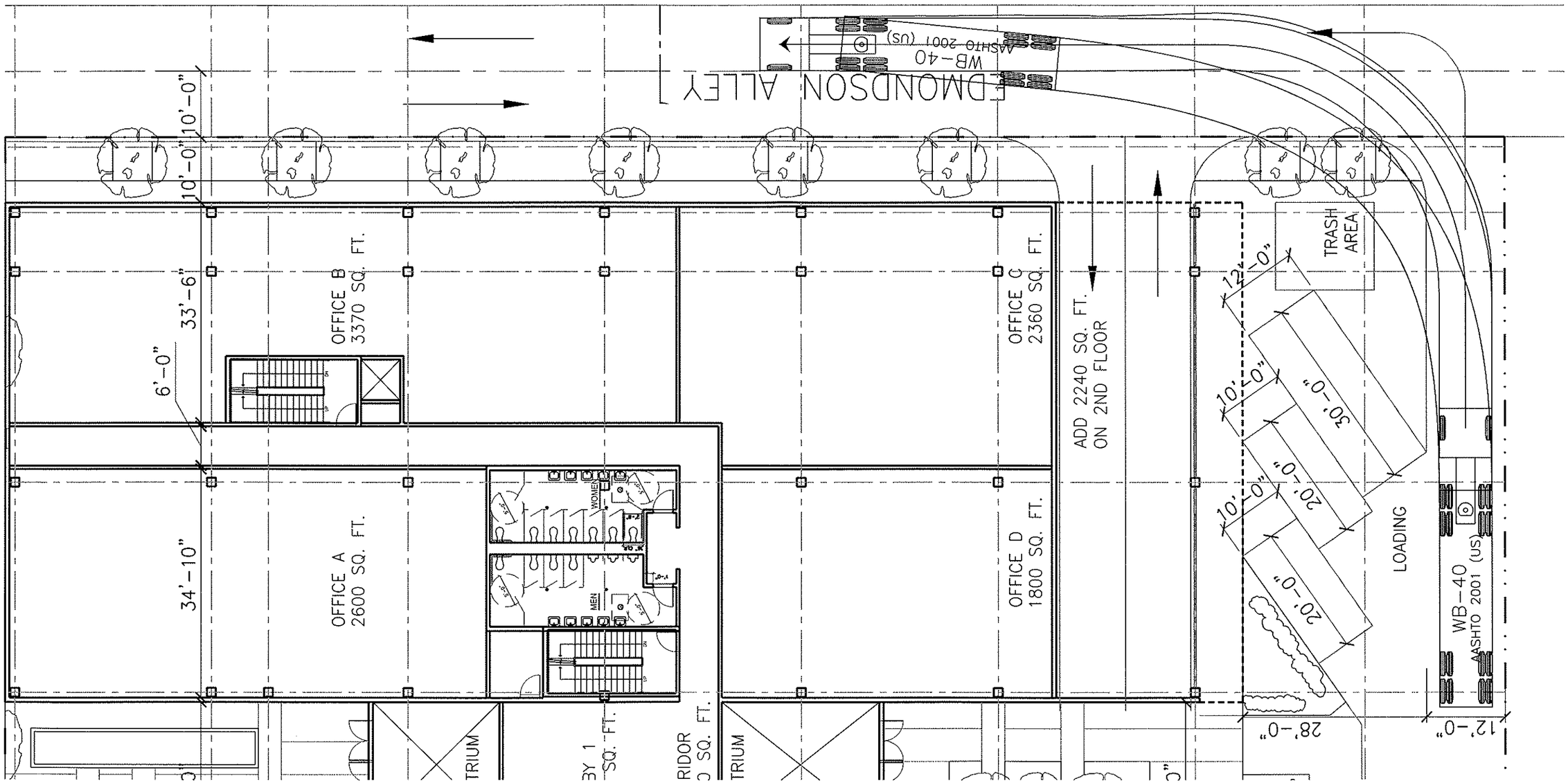
APPENDIX C

TURNING MOVEMENT FIGURES

Turning Movement Analysis Single Unit 30' Truck



Turning Movement Analysis Articulated WB-40 Truck



Appendix F

Hazards and Hazardous Materials Reports

GEODESIGN INC

REPORT OF
LIMITED ENVIRONMENTAL SUBSURFACE INVESTIGATION, LIMITED ASBESTOS-CONTAINING MATERIALS SURVEY, AND LIMITED LEAD-BASED PAINT SURVEY

Proposed California and Fair Oaks Office Building

612 – 624 South Fair Oaks Avenue

Pasadena, California

July 28, 2008

GEODESIGN INC

July 28, 2008

Council Rock Partners
2121 Avenue of the Stars, Suite 990
Los Angeles, CA 90067

Attention: Mr. Rob Vogel

Report of Limited Environmental Subsurface Investigation,
Limited Asbestos-Containing Materials Survey,
and Limited Lead-Based Paint Survey
California and Fair Oaks Office Building
612 – 624 South Fair Oaks Avenue
Pasadena, California

GeoDesign, Inc. is please to submit this report for the proposed office building development. The project site is located at 612 – 624 South Fair Oaks Avenue in Pasadena, California.

We appreciate the opportunity to be of continued service to you. Please contact us if you have any questions regarding this report.

Sincerely,

GeoDesign, Inc.

Christopher J. Zadoorian, G.E.
Principal Engineer

JAH:SCN:CJZ:REB:kt
Attachments
Four copies submitted
Document ID: CouncilRP-4-02-072808-envr.doc

2121 S Towne Centre Place - Suite 130 | Anaheim CA 92806 | Off 714.634.3701 | Fax 714.634.3711

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1.0 INTRODUCTION

This report summarizes the results of our limited environmental subsurface investigation, limited ACM survey, and limited LBP survey for the proposed office building development at 612 – 624 South Fair Oaks Avenue in Pasadena, California (project site). The site location is shown on Figure 1. For your reference, definitions of all acronyms used are attached to the end of this document.

The limited environmental subsurface investigation was conducted concurrent with a geotechnical investigation for the proposed new office building development at the project site. The results of our geotechnical investigation will be presented in a separate report.

A one-story commercial building currently occupies the west side of the project site and an auto body shop occupies the east-central portion of the project site. The remainder of the project site is asphalt-paved surface parking. It is our understanding that the existing structures will be demolished to allow for the construction of new office buildings.

Our services are summarized below and are followed by the conclusions and recommendations we developed based on the results of our investigation, ACM survey, and LBP survey.

2.0 PURPOSE AND SCOPE

2.1 LIMITED ENVIRONMENTAL SUBSURFACE INVESTIGATION

The purpose of our limited subsurface investigation was to evaluate the subsurface conditions within close proximity to the existing auto body shop for evidence of chemical contaminants that may require special handling, treatment, or disposal during the construction phase of the proposed office building development at the project site. Our completed specific scope of services included the following:

- Coordinated project site access with project site personnel through Council Rock Partners.
- Coordinated and managed the field investigation, including public utility locates, scheduling of subcontractors, and coordination.
- Subcontracted JDK Drilling, Inc. of Orange, California, to complete seven hollow-stem auger borings at the project site to depths between approximately 20 and 76 feet BGS.
- Obtained soil samples from the borings for field screening. The soil samples were screened the in the field using visual and olfactory methods, and headspace vapor screening methods using a hand-held PID.
- Collected four composite soil samples from drill cuttings to characterize the cuttings for off-site disposal. Submitted composite soil samples to American Scientific Laboratories, LLC of Los Angeles, California, for chemical analysis as described in Section 3.2 of this report.
- Summarized the results of our limited subsurface investigation activities in this report.

2.2 LIMITED ACM SURVEY AND LIMITED LBP SURVEY

The purpose of the limited ACM survey and limited LBP survey was to provide preliminary information regarding the potential for asbestos and LBP in building materials within the retail building on the west side of the project site. Our specific services included the following:

- Collected 17 representative bulk samples of suspect ACMs from the existing retail building.
- Submitted the samples to a certified analytical laboratory for analysis of asbestos content using polarized light microscopy.
- Performed XRF analysis of building components suspected of being coated with LBP within and along the exterior of the existing on-site retail building.
- Summarized the results and findings of the limited ACM survey and limited LBP survey in this report.

Please note that the roof of the subject building was not accessed during our investigation and that roofing materials may be a source of ACM.

Our services did not include performing ACM or LBP surveys within the existing auto body shop.

Our limited ACM survey and limited LBP survey were limited to readily accessible building materials and painted surfaces, and included only non-destructive sampling methods. Additional ACMs and/or LBP may be present in the commercial building.

3.0 LIMITED ENVIRONMENTAL SUBSURFACE EXPLORATIONS

3.1 SUBSURFACE EXPLORATIONS

We drilled seven borings (B-1 through B-7) to depths of 20 to 76 feet BGS at the locations shown on Figure 2. Borings B-2 through B-6 were located in close proximity to the existing auto body shop. The borings were completed using hollow-stem auger drilling equipment owned and operated by JDK Drilling, Inc. of Orange, California. A California- licensed geologist with GeoDesign observed the exploration activities, collected relatively undisturbed samples from the borings, and maintained a written log of the borings.

Fill materials were encountered in borings B-2 through B-6 to a maximum depth of 2.5 feet BGS and consists of medium dense sand with gravel. Native soils encountered beneath the AC materials in the borings consists of alternating layers of loose to medium dense, fine to medium sand with some gravel and stiff to very stiff silt with some fine sand. The native soils generally become dense to very dense below depths of 20 feet BGS. Very stiff silt with fine sand and sandy silt was encountered at approximately 30 to 49 feet BGS in borings B-2 and B-4 underlain by medium dense, fine sand at approximately 49 feet BGS.

Grab soil samples were collected from borings B-2 through B-6 at 2.5-foot intervals and were screened in the field using visual and olfactory examination, and headspace vapor screening using a hand-held PID.

Field screening evidence of hydrocarbons was not observed in any of the grab soil samples or in the drill cuttings.

Field screening results for all soil samples collected during the investigation are included on the exploration logs, which are presented in Appendix A.

Groundwater was not encountered in the borings.

3.2 RESULTS OF CHEMICAL ANALYSIS

Four composite soil samples (B1/B7, B5/B6, B3/B4, and B2) were collected from drill cuttings for disposal characterization. The composite soil samples were submitted to American Scientific Laboratories, LLC of Los Angeles, California.

Testing required for disposal purposes included the following:

- CCR Title 22 total metals by EPA Method 6010B/7471A
- TPH DRO and TPH ORO by EPA Method 8015B

Based on the analytical results, TPH DRO and TPH ORO were not detected at concentrations greater than the laboratory MRLs in any of the soil samples.

Based on the results of the chemical testing for metals, the detected concentrations of metals are less than the concentrations that would constitute special handling, treatment, or disposal of the soil cuttings.

The drums containing the soil cuttings were disposed off site as non-hazardous materials. The analytical report is presented in Appendix B.

4.0 LIMITED ACM SURVEY AND LIMITED LBP SURVEY

The limited ACM survey and limited LBP survey were conducted concurrently on June 6, 2008 by our representative who is certified by the State of California as an asbestos consultant and lead inspector. The limited ACM and LBP surveys were limited to the retail building on the west side of the project site and did not include the auto body building.

4.1 LIMITED ACM SURVEY

Materials sampled at the project site structure included the interior walls and ceilings in the three retail spaces, floor tile and mastics, ceiling tile and mastics, and exterior stucco and vapor barrier paper. Roofing materials and materials concealed within walls, ceilings, and other void areas were inaccessible at the time of the assessment. Carpeting was removed, where possible, in order to identify suspect ACM flooring that may have been concealed.

Seventeen building material samples were submitted to L.A. Testing of Los Alamitos, California. L.A. Testing is accredited by the National Institute of Standards and Technology under the procedures of the National Voluntary Laboratory Accreditation Program for bulk sample analysis. The samples were analyzed for percent asbestos content by EPA Method 600/R93/116.

4.2 LIMITED LBP SURVEY

Painted surfaces tested for LBP at the project site structure included exterior walls, exterior and interior doors and doorframes, interior walls, ceilings, baseboards, wall trim, ceramic tile walls, floors, cabinets, and windows.

A total of 112 readings were recorded from various painted building components. Six XRF calibration checks were performed before and after the survey. The Niton XRF Analyzer (Model Xlp, serial #11784) used during this survey was leak tested by Valley Safety Services Associates of Belchertown, Massachusetts, and was deemed to be "used as authorized" as indicted by certificate #802372, which can be provided upon request. The XRF used for the survey is licensed for use by GeoDesign, Inc. through the State of Oregon under license number ORE-90822.

4.3 RESULTS OF LIMITED ACM SURVEY

Materials containing detectable quantities of asbestos are defined in California as materials containing percentages of asbestos greater than 0.1 percent by weight[1]. These materials are regulated by various government agencies.

Asbestos was detected in the tan and black flooring/carpet mastics in the rear hallway of the Grandview Palace restaurant (beneath the existing carpet), and in the flooring (tile or sheeting) and mastic materials in the front dining area of the same restaurant (beneath carpet). All other sampled materials tested negative for asbestos.

Please note that the roof of the retail building was not accessed during our survey and that the roofing materials may be a source of ACM. In addition, several exterior fire doors that may contain ACM insulation were noted along the perimeter of the structure.

The ACM test results are presented in Table 1, and the L.A. Testing laboratory report is presented in Appendix C.

4.4 RESULTS OF LIMITED LBP SURVEY

LBP is defined by the guidelines of the U.S. Department of Housing and Urban Development as paint or other surface coatings that contain lead equal to or greater than 1.0 mg/cm^2 (0.5 percent by weight or 5,000 mg/Kg [ppm]). Los Angeles County has established a more stringent standard for lead-based paint at 0.7 mg/cm^2.

LBP was detected on various surfaces along the exterior of the retail building and also on interior building components in each restaurant. Building components found to be coated with LBP include the interior plaster walls, window and door components, baseboards and ceramic tile bathroom walls, floors and splash guards (baseboards).

The results of the raw XRF data from the limited LBP survey are presented in Table 2.

---

[1] CCR, Title 8, Section 1529.

5.0 CONCLUSIONS AND RECOMMENDATIONS

GeoDesign has completed a limited environmental subsurface investigation adjacent to the auto body shop at the project site at 612 - 624 South Fair Oaks Avenue in Pasadena, California. The subsurface investigation was completed to further evaluate potential soil impact related to auto body shop operations at the project site.

Based on the results of the recent explorations, field screening indication of petroleum hydrocarbon impact was not observed in soil. The analytical results of composite soil samples indicate that:

- TPH DRO and TPH ORO were not detected at concentrations greater than the laboratory MRLs in soil.
- Metals were detected at concentrations less than applicable regulatory screening levels and/or established background concentrations.

GeoDesign has completed a limited ACM survey and limited LBP survey at the commercial building for evaluating the presence of ACM and LBP in the building. Based on the results of our surveys, we recommend a comprehensive pre-demolition asbestos survey be completed in accordance with SCAQMD Rule 1403 prior to demolition or renovation activities at the property. All identified ACM should be removed and disposed by a registered Cal-OSHA-certified asbestos abatement contractor prior to any disturbance of the material.

Contractors should be notified of the presence of LBP. Only DHS-certified workers with the appropriate respirator fit test and medical records are authorized to perform work that may disturb LBP-coated building materials. Registered, Cal-OSHA-certified lead contractors should require their employees to use appropriate personal protective equipment, stabilize LBP in poor condition, and adhere to all applicable regulations when conducting renovation or demolition activities involving LBPs.

6.0 LIMITATIONS

This report has been prepared for use by the Council Rock Partners and its authorized agents. GeoDesign makes no warranties or guarantees regarding the accuracy or completeness of information provided or compiled by others.

This report is not intended for use by others, and the information contained herein is not applicable to other sites. Reliance on this report by other parties is strictly at the risk of those parties, and GeoDesign will grant no third-party reliance unless specifically requested in writing by our client for whom this report was prepared.

Our interpretations of subsurface conditions are based on data from select soil samples. The results of the analyses only indicate the presence or absence of metals and TPH, respectively in the specific locations. Analytical data from the laboratory samples should only be considered as indicators of site conditions and not a guarantee of the absence of subsurface impact in areas not sampled.

The information presented in this report is based on the limited ACM survey and limited LBP survey completed on June 6, 2008. Concentrations of asbestos in the same or similar materials can be highly variable; therefore, the laboratory analytical results of suspect ACMs may not be representative of the same or of a similar material located in other parts of the buildings. No warranty or other conditions, expressed or implied, should be understood.

The conclusions presented in this report are based on our observations made during field investigations and chemical analytical data. The findings of this assessment should be considered as a professional opinion based on our evaluation of selected and limited data.

♦ ♦ ♦

We appreciate the opportunity to be of service to you. Please call if you have questions regarding this report.

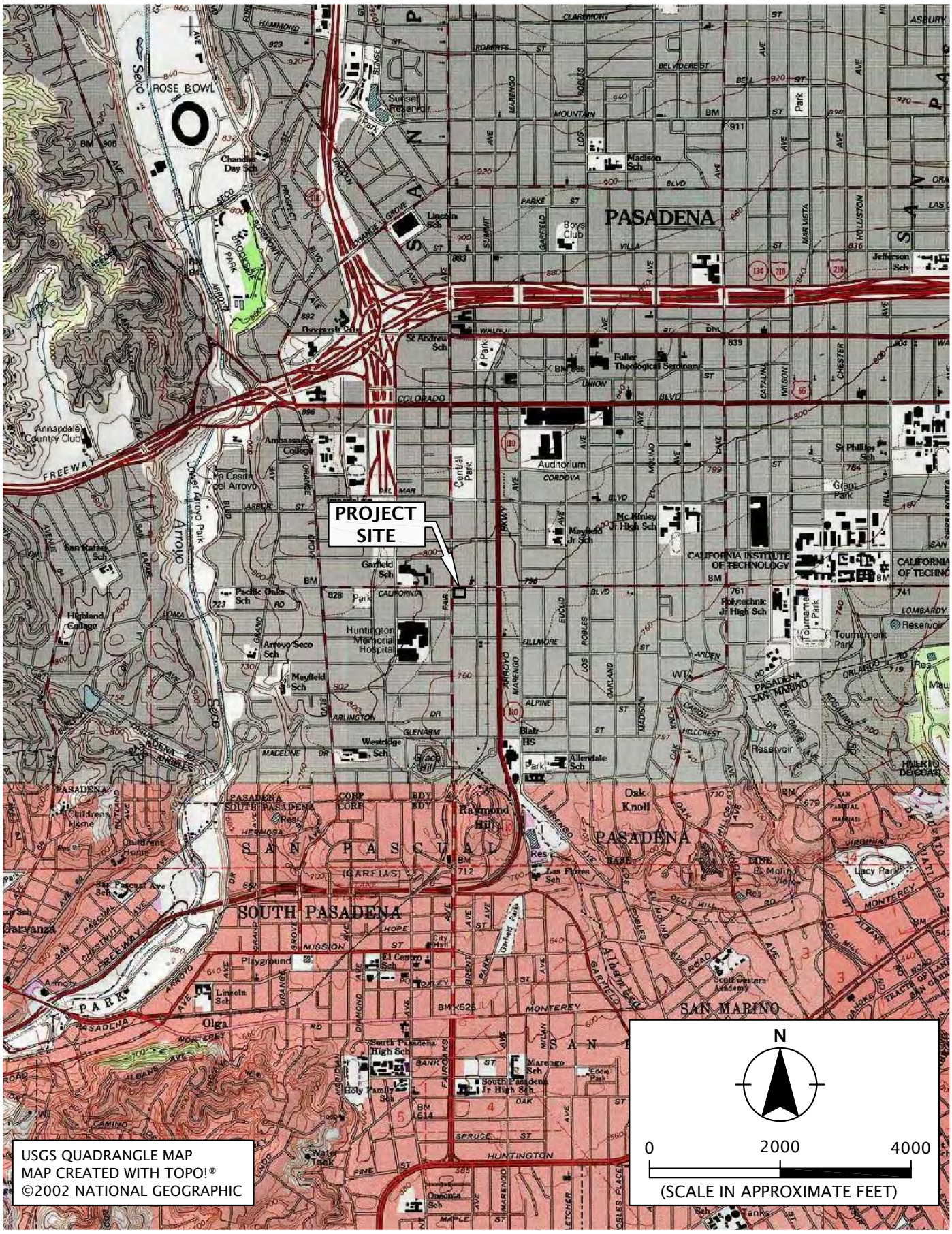
Sincerely,

GeoDesign, Inc.

Joshua A. Handler, C.A.C., L.I.
Project Manager
DOSH certification #06-3985, DHS certification #12083

Christopher J. Zadoorian, G.E.
Principal Engineer

FIGURES



USGS QUADRANGLE MAP
MAP CREATED WITH TOPO!®
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COUNCILRP-4-02	**VICINITY MAP**	
JUNE 2008	CALIFORNIA AND FAIR OAKS OFFICE BUILDING PASADENA, CA	**FIGURE 1**

Printed By: cjole | Print Date: 6/27/2008 1:45:26 PM
File Name: \\Chromite\Files\Jobs\A-D\CouncilRP\CouncilRP-4\CouncilRP-4-02\Figures\CAD\CouncilRP-4-02-VM01.dwg | Layout: FIGURE 1

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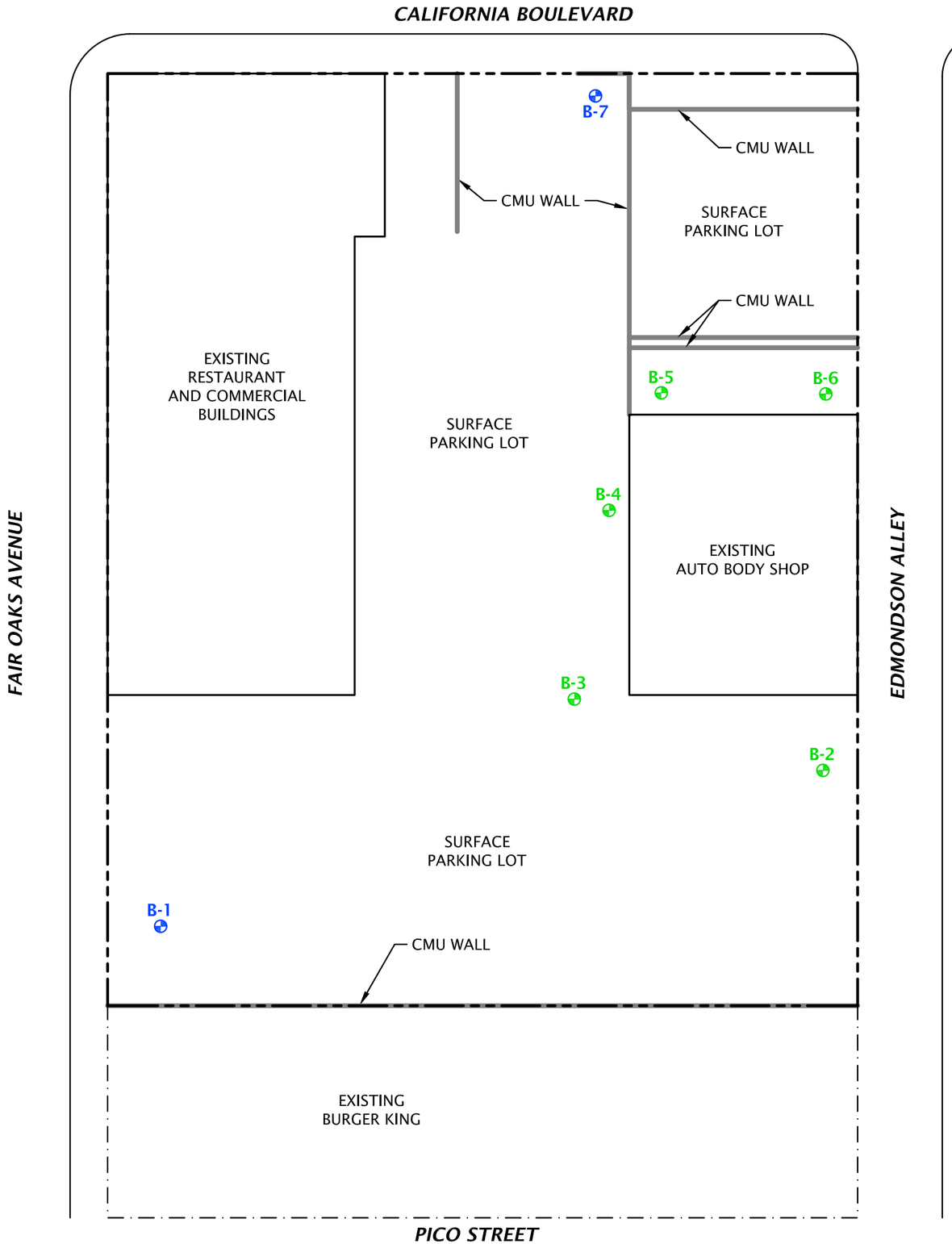
File Name: \\Chromite\Files\Jobs\A-D\CouncilRP\CouncilRP-4\CouncilRP-4-02\Figures\CAD\CouncilRP-4-02-SP01.dwg | Layout: FIGURE 2



LEGEND:

- B-1 GEOTECHNICAL BORING
- B-2 GEOTECHNICAL/ENVIRONMENTAL BORING
- PROJECT SITE BOUNDARY

N

0 30 60

(SCALE IN APPROXIMATE FEET)

SITE PLAN BASED ON DRAWING PROVIDED BY DMc ENGINEERING, MARCH 2008

BASIS OF BEARINGS:
THE CENTER LINE OF FAIR OAKS AVENUE BEARING NORTH WAS HELD AS BASIS OF BEARING FOR THIS SURVEY PER A MAP RECORDED IN BOOK 70 PAGE 47 OF MISCELLANEOUS MAPS IN THE OFFICE OF THE COUNTY RECORDER OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

SURVEYORS NOTES:
LOT 4 BLOCK "A" OF CENTRAL TRACT, IN THE CITY OF PASADENA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 6 PAGE 121 OF MISCELLANEOUS RECORDS, IN THE COUNTY RECORDER OF SAID COUNTY, IS NOT INCLUDED IN THIS ALTA, PER THE REQUEST OF URBAN DEVELOPMENT PROPERTIES.

SITE PLAN

FIGURE 2

CALIFORNIA AND FAIR OAKS OFFICE BUILDING
PASADENA, CA

COUNCILRP-4-02

JUNE 2008

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TABLES

TABLE 1
Summary of Limited ACM Survey Analytical Results [1]
Proposed California and Fair Oaks Office Building
612 South Fair Oaks Avenue
Pasadena, California

Sample I.D.	Layer	Location	Homogenous Material Description	Asbestos	Type
AS-1	1	Grandview Palace, kitchen pantry, east	Drywall wall	ND	NA
AS-2	1	Grandview Palace, dining area, west	Ceiling tile, 2' x 4'	ND	NA
AS-3	1	Grandview Palace, restroom hallway, east	Tan & Black flooring mastic	2%	Chrysotile
AS-4	1	Grandview Palace, dining area, south	Flooring beneath carpet	15%	Chrysotile
	2		Flooring mastic beneath carpet	ND	NA
AS-5	1	Grandview Palace, dining area, above dropped ceiling	12" ceiling tile, straight hole pattern	ND	NA
AS-6	1	Grandview Palace, dining area, above dropped ceiling	Ceiling tile mastic	ND	NA
AS-7	1	Grandview Palace exterior, NW corner	Vapor barrier paper	ND	NA
AS-8	1	Grandview Palace exterior, NW corner	Stucco	ND	NA
AS-9	1	Massage studio, restroom, north	Drywall wall	ND	NA
AS-10	1	Massage studio, laundry room	Ceiling tile, 2' x 4'	ND	NA
AS-11	1	Massage studio, laundry room, north wall, above dropped ceiling	Plaster wall	ND	NA
AS-12	1	Monty's rear office area	Drywall wall	ND	NA
AS-13	1	Monty's rear office area	Plaster wall	ND	NA
AS-14	1	Monty's Offices adj. to south dining	Flooring	ND	NA
AS-15	1	Monty's bar area	12" black floor tile	ND	NA
	2		Floor tile masic	ND	NA
	3		Leveling compound	ND	NA
AS-16	1	Monty's dining area	12" black ceiling tile	ND	NA
AS-17	1	Monty's dining area	Ceiling tile (black) mastic	ND	NA

Notes:
1. Polarized light microscopy performed by L.A. Testing of Los Alamitos, California.

TABLE 2
Summary of Limited LBP Survey Results
Proposed California and Fair Oaks Office Building
612 South Fair Oaks Drive
Pasadena, California
Performed by Joshua Handler, California Lead Inspector #12083

Reading	Component	Substrate	Side	Condition	Color	Site	Room	Results	Lead
72	Calibration check							Negative	0
73	Calibration check							Positive	3.3
74	Calibration check							Positive	1.1
75	Wall	Drywall	North	Intact	White	massage studio	Waiting area	Negative	0
76	Wall	Drywall	West	Intact	White	massage studio	Waiting area	Negative	0
77	Wall	Drywall	South	Intact	White	massage studio	Waiting area	Negative	0
78	Door	Wood	South	Intact	White	massage studio	Waiting area	Negative	0
79	Door frame	Wood	South	Intact	White	massage studio	Waiting area	Negative	0
80	Door frame	Wood	South	Intact	White	massage studio	Room 1	Negative	0
81	Door	Wood	South	Intact	White	massage studio	Room 1	Negative	0
82	Wall	Drywall	South	Intact	White	massage studio	Room 1	Negative	0
83	Wall	Drywall	West	Intact	White	massage studio	Room 1	Negative	0
84	Wall	Drywall	North	Intact	White	massage studio	Room 1	Negative	0
85	Wall	Drywall	North	Intact	White	massage studio	Room 2	Negative	0
86	Wall	Drywall	East	Intact	White	massage studio	Room 2	Negative	0
87	Wall	Drywall	South	Intact	White	massage studio	Room 2	Negative	0
88	Wall	Drywall	South	Intact	White	massage studio	Laundry	Negative	0
89	Wall	Drywall	East	Intact	White	massage studio	Laundry	Negative	0
90	Wall	Drywall	North	Intact	White	massage studio	Laundry	Negative	0
91	Wall	Drywall	North	Intact	Blue	massage studio	Restroom	Negative	0
92	Wall	Drywall	East	Intact	Blue	massage studio	Restroom	Negative	0
93	Wall	Drywall	South	Intact	Blue	massage studio	Restroom	Negative	0
94	Floor	Tile	South	Intact	Gray	massage studio	Restroom	Negative	0.02
95	Baseboard	Wood	South	Intact	White	massage studio	Restroom	Negative	0
96	Wall	Plaster	North	Intact	Beige		Exterior	Negative	0.04
97	Trim	Wood	North	Intact	Green		Exterior	Negative	0
98	Trim	Wood	West	Intact	Green		Exterior	Negative	0.05
99	Wall panel	Wood	West	Intact	Beige		Exterior	Negative	0

TABLE 2
Summary of Limited LBP Survey Results
Proposed California and Fair Oaks Office Building
612 South Fair Oaks Drive
Pasadena, California
Performed by Joshua Handler, California Lead Inspector #12083

Reading	Component	Substrate	Side	Condition	Color	Site	Room	Results	Lead
100	**Wall**	**Plaster**	**West**	**Intact**	**Beige**		**Exterior**	**Positive**	**1.1**
101	Wall	Plaster	West	Intact	Gray		Exterior	Null	0.09
102	Wall	Plaster	West	Intact	Gray		Exterior	Negative	0.02
103	Door	Wood	West	Intact	Red		Exterior	Negative	0
104	Door frame	Wood	West	Intact	Red		Exterior	Negative	0
105	Wall	Wood	West	Intact	Gray		Exterior	Negative	0
106	**Wall**	**Plaster**	**South**	**Intact**	**Beige**		**Exterior**	**Positive**	**1.3**
107	Wall	Brick	East	Poor	Beige		Exterior	Negative	0.03
108	Wall	Brick	East	Poor	Beige		Exterior	Negative	0.01
109	Wall	Wood	East	Intact	Gray	Monty's	Exterior	Negative	0
110	**Window frame**	**Wood**	**East**	**Intact**	**Beige**	**Monty's**	**Exterior**	**Positive**	**Room 1**
111	Wall	Wood	South	Intact	Brown	Monty's	Entry	Negative	0.5
112	**Wall**	**Plaster**	**North**	**Intact**	**Beige**	**Monty's**	**Entry**	**Positive**	**1.1**
113	Wall	Tile	North	Intact	Gray	Monty's	North RR	Negative	0.06
114	**Floor**	**Tile**	**North**	**Intact**	**Gray**	**Monty's**	**North RR**	**Positive**	**1.4**
115	Wall	Tile	North	Intact	Black	Monty's	North RR	Negative	0.01
116	Door	Wood	West	Intact	Brown	Monty's	North RR	Negative	0.6
117	**Door jamb**	**Wood**	**West**	**Intact**	**Brown**	**Monty's**	**North RR**	**Positive**	**1.5**
118	**Door jamb**	**Wood**	**West**	**Intact**	**Beige**	**Monty's**	**North RR**	**Positive**	**1.4**
119	**Wall**	**Tile**	**West**	**Intact**	**Beige**	**Monty's**	**North RR**	**Positive**	**1.8**
120	**Floor**	**Tile**	**West**	**Intact**	**Stone**	**Monty's**	**North RR**	**Positive**	**29.3**
121	Wall	Plaster	South	Intact	Beige	Monty's	Bar	Negative	0
122	Wall	Plaster	North	Intact	Beige	Monty's	North dining	Negative	0
123	**Wall**	**Plaster**	**North**	**Intact**	**Green**	**Monty's**	**Bar**	**Positive**	**1.1**
124	Wall	Plaster	West	Intact	Beige	Monty's	Center dining	Negative	0
125	Wall	Plaster	North	Intact	Beige	Monty's	Center dining	Negative	0
126	Wall	Plaster	North	Intact	Beige	Monty's	Kitchen	Negative	0.16

TABLE 2
Summary of Limited LBP Survey Results
Proposed California and Fair Oaks Office Building
612 South Fair Oaks Drive
Pasadena, California
Performed by Joshua Handler, California Lead Inspector #12083

Reading	Component	Substrate	Side	Condition	Color	Site	Room	Results	Lead
127	Wall	Plaster	East	Intact	Beige	Monty's	Kitchen	Negative	0.17
128	Wall	Plaster	South	Intact	Beige	Monty's	Kitchen	Negative	0
129	Wall	Plaster	South	Intact	Beige	Monty's	Kitchen RR	Negative	0.01
130	Wall	Plaster	East	Intact	Beige	Monty's	Kitchen RR	Null	0
131	Wall	Plaster	East	Intact	Beige	Monty's	Kitchen RR	Negative	0
132	Wall	Plaster	North	Intact	Beige	Monty's	Kitchen RR	Null	0
133	Wall	Plaster	North	Intact	Beige	Monty's	Kitchen RR	Null	0
134	Window	Wood	East	Intact	Beige	Monty's	Kitchen RR	Negative	0
135	Window sill	Wood	East	Intact	Beige	Monty's	Kitchen RR	Negative	0.4
136	Window frame	Wood	East	Intact	Beige	Monty's	Kitchen RR	Negative	0.07
137	Center walk-in	Wood	South	Intact	Beige	Monty's	Kitchen RR	Negative	0.17
138	Cabinet	Wood	North	Intact	Beige	Monty's	Hallway	Negative	0
139	Cabinet	Wood	North	Intact	Blue	Monty's	Hallway	Negative	0.05
140	Center walk-in door	Metal	South	Intact	Blue	Monty's	Hallway	Negative	0.03
141	Wall	Wood	South	Intact	Beige	Monty's	Hallway	Negative	0
142	**Wall**	**Plaster**	**North**	**Intact**	**Green**	**Monty's**	**Employee room**	**Positive**	**16**
143	Door	Wood	South	Intact	Green	Monty's	Employee room	Negative	0.18
144	Door	Wood	North	Intact	White	Monty's	Center offices	Negative	0
145	Door frame	Wood	North	Intact	White	Monty's	Center offices	Negative	0
146	**Wall**	**Plaster**	**North**	**Intact**	**Green**	**Monty's**	**Center offices**	**Positive**	**15.4**
147	**Baseboard**	**Wood**	**North**	**Intact**	**Green**	**Monty's**	**Center offices**	**Positive**	**15.9**
148	Wall	Plaster	East	Intact	Green	Monty's	Center storage	Negative	0.3
149	**Wall**	**Plaster**	**West**	**Intact**	**Beige**	**Monty's**	**Center storage**	**Positive**	**1.3**
150	Wall	Wood	West	Intact	Brown	Monty's	Center storage	Negative	0
151	**Baseboard**	**Wood**	**West**	**Intact**	**White**	**Monty's**	**Center storage**	**Positive**	**2.2**
152	Door frame	Wood	West	Intact	White	Monty's	Center storage	Negative	0.29
153	Door	Wood	West	Intact	Blue	Monty's	Center storage walk-in	Null	0.15

TABLE 2
Summary of Limited LBP Survey Results
Proposed California and Fair Oaks Office Building
612 South Fair Oaks Drive
Pasadena, California
Performed by Joshua Handler, California Lead Inspector #12083

Reading	Component	Substrate	Side	Condition	Color	Site	Room	Results	Lead
154	Door	Wood	West	Intact	Blue	Monty's	Center storage walk-in	Negative	0.02
155	Wall	Wood	South	Intact	White	Monty's	Center storage walk-in	Negative	0.05
156	Corner trim	Wood	South	Intact	Blue	Monty's	Center storage walk-in	Negative	0.17
157	Wall	Plaster	North	Intact	White	Monty's	Rear offices	Negative	0.05
158	Wall	Plaster	East	Intact	White	Monty's	Rear offices	Negative	0.23
159	**Wall**	**Plaster**	**West**	**Intact**	**White**	**Monty's**	**Rear offices**	**Positive**	**1.3**
160	Baseboard	Wood	West	Intact	White	Monty's	Rear offices	Negative	0.14
161	Door	Wood	South	Intact	White	Monty's	Rear offices	Negative	0
162	Door frame	Wood	South	Intact	White	Monty's	Rear offices	Negative	0.3
163	Wall paneling	Wood	East	Intact	White	Monty's	Rear offices	Negative	0.01
164	Door	Metal	South	Intact	Black	Monty's	Rear offices	Negative	0.07
165	Wall	Drywall	East	Intact	Beige	Grandview Palace	Kitchen	Negative	0
166	Wall	Drywall	West	Intact	Beige	Grandview Palace	Kitchen	Negative	0
167	Wall	Drywall	North	Intact	Beige	Grandview Palace	Kitchen	Negative	0
168	Door frame	Wood	North	Intact	Beige	Grandview Palace	Kitchen	Negative	0
169	Door frame	Wood	West	Intact	Brown	Grandview Palace	Kitchen	Negative	0.01
170	Door	Wood	West	Intact	Brown	Grandview Palace	Kitchen	Negative	0.01
171	Wall	Drywall	South	Intact	Yellow	Grandview Palace	Rear hallway	Negative	0
172	Wall	Drywall	North	Intact	Yellow	Grandview Palace	Rear hallway	Negative	0
173	Wall	Tile	North	Intact	Green	Grandview Palace	Mens RR	Negative	0.01
174	Wall	Tile	North	Intact	Green, dark	Grandview Palace	Mens RR	Negative	0.02
175	**Baseboard**	**Tile**	**North**	**Intact**	**White**	**Grandview Palace**	**Mens RR**	**Positive**	**3**
176	Floor	Tile	North	Intact	Red	Grandview Palace	Mens RR	Negative	0
177	Floor	Tile	North	Intact	Red	Grandview Palace	Womens RR	Negative	0.02
178	**Baseboard**	**Tile**	**North**	**Intact**	**White**	**Grandview Palace**	**Womens RR**	**Positive**	**3.2**
179	Wall	Tile	North	Intact	Red	Grandview Palace	Womens RR	Negative	0
180	Wall	Tile	North	Intact	Pink	Grandview Palace	Womens RR	Negative	0.01

TABLE 2
Summary of Limited LBP Survey Results
Proposed California and Fair Oaks Office Building
612 South Fair Oaks Drive
Pasadena, California
Performed by Joshua Handler, California Lead Inspector #12083

Reading	Component	Substrate	Side	Condition	Color	Site	Room	Results	Lead
181	**Window frame**	**Wood**	**East**	**Intact**	**Beige**	**Grandview Palace**	**Womens RR**	**Positive**	**1.3**
182	Calibration check							Negative	0.6
183	Calibration check							Negative	0.3
184	Calibration check							Positive	1.5

APPENDIX A

APPENDIX A

FIELD EXPLORATIONS

GENERAL

GeoDesign explored subsurface conditions at the site by drilling seven borings (B-1 through B-7) to depths of approximately 76 feet BGS at the approximate locations shown on Figure 2. Borings B-2 through B-6 were also screened for possible environmental impacts. JDK Drilling, Inc. of Orange, California, drilled the borings using a drill rig equipped for hollow-stem auger drilling methods on June 6 and 9, 2008.

The location of the explorations was determined in the field by measuring with a tape from existing site features. This information should be considered accurate only to the degree implied by the methods used.

A member of our staff observed and logged the explorations. We obtained representative samples of the various soils encountered in the explorations for environmental screening and for geotechnical laboratory testing. Classifications and sampling intervals are presented on the exploration log included in this appendix.

SOIL SAMPLING

Geotechnical samples were obtained from the borings using a modified California split-spoon sampler in general accordance with ASTM D 3550. The split-spoon samplers were driven into the soil with a 140-pound hammer free-falling 30 inches. The samplers were driven a total distance of 12 inches or to refusal as indicated on the exploration log. The number of blows required to drive the sampler the final 12 inches is recorded on the exploration log included in this appendix, unless otherwise noted.

In addition, SPTs were performed in the borings in general accordance with ASTM D 1586. The 2-inch-diameter, split-spoon sampler was driven into the soil with a 140-pound hammer free-falling 30 inches. The samplers were driven a total distance of 18 inches or to refusal. The number of blows required to drive the sampler the final 12 inches is recorded on the exploration logs included in this appendix.

SOIL SAMPLE FIELD SCREENING METHODS

A GeoDesign representative performed field screening tests on selected soil samples collected from the explorations. Field screening results aided in the selection of soil samples for chemical analysis. Screening methods included visual and olfactory examination, and headspace vapor screening using a MiniRAE PID.

Visual and olfactory screening consisted of inspecting the soil for discoloration and odor indicative of the presence of petroleum hydrocarbons in the sample.

Headspace vapor screening is performed by placing a soil sample in a plastic bag. Air is captured in the bag and the bag is shaken to expose the soil to the air trapped in the bag. The probe of a MiniRAE PID is inserted into the bag and the MiniRAE PID measures VOC vapor

concentrations in ppm. The MiniRAE PID is calibrated to isobutylene. The MiniRAE PID is designed to quantify VOC vapor concentrations in the range between 1 and 2,000 ppm with an accuracy of 10 percent of the reading and between 2,000 and 10,000 ppm with an accuracy of 20 percent of the reading.

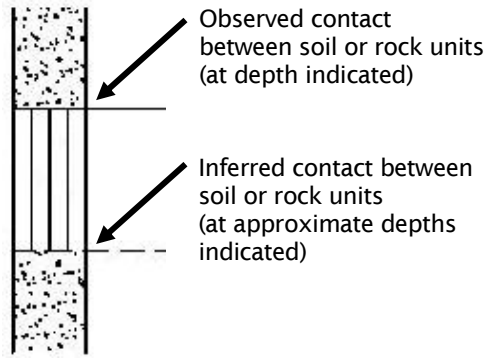
Field screening results are site and exploration specific. The results may vary with temperature, soil moisture content, soil type, and type of contaminant.

SOIL CLASSIFICATION

The soil samples were classified in accordance with the "Exploration Key" (Table A-1) and "Soil Classification System" (Table A-2), which are included in this appendix. The exploration log indicates the depths at which the soils or their characteristics change, although the change actually could be gradual. If the change occurred between sample locations, the depth was interpreted. Classifications and sampling intervals are presented on the exploration logs included in this appendix.

SYMBOL	SAMPLING DESCRIPTION
	Location of sample obtained in general accordance with ASTM D 1586 Standard Penetration Test with recovery
	Location of sample obtained using thin-wall Shelby tube or Geoprobe® sampler in general accordance with ASTM D 1587 with recovery
	Location of sample obtained using Dames & Moore sampler and 300-pound hammer or pushed with recovery
	Location of sample obtained using Dames & Moore or 3-inch-O.D. split-spoon sampler and 140-pound hammer or pushed with recovery
	Location of grab sample
	Rock coring interval
	Water level during drilling
	Water level taken on date shown

Graphic Log of Soil and Rock Types



GEOTECHNICAL TESTING EXPLANATIONS

ATT	Atterberg Limits	P	Pushed Sample
CBR	California Bearing Ratio	PP	Pocket Penetrometer
CON	Consolidation	P200	Percent Passing U.S. Standard No. 200 Sieve
DD	Dry Density	RES	Resilient Modulus
DS	Direct Shear	SIEV	Sieve Gradation
HYD	Hydrometer Gradation	TOR	Torvane
MC	Moisture Content	UC	Unconfined Compressive Strength
MD	Moisture-Density Relationship	VS	Vane Shear
OC	Organic Content	kPa	Kilopascal

ENVIRONMENTAL TESTING EXPLANATIONS

CA	Sample Submitted for Chemical Analysis	ND	Not Detected
P	Pushed Sample	NS	No Visible Sheen
PID	Photoionization Detector Headspace Analysis	SS	Slight Sheen
ppm	Parts per Million	MS	Moderate Sheen
		HS	Heavy Sheen

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EXPLORATION KEY

TABLE A-1

RELATIVE DENSITY - COARSE-GRAINED SOILS

Relative Density	Standard Penetration Resistance	Dames & Moore Sampler (140-pound hammer)	Dames & Moore Sampler (300-pound hammer)
Very Loose	0 – 4	0 - 11	0 - 4
Loose	4 – 10	11 - 26	4 - 10
Medium Dense	10 – 30	26 - 74	10 - 30
Dense	30 – 50	74 - 120	30 - 47
Very Dense	More than 50	More than 120	More than 47

CONSISTENCY - FINE-GRAINED SOILS

Consistency	Standard Penetration Resistance	Dames & Moore Sampler (140-pound hammer)	Dames & Moore Sampler (300-pound hammer)	Unconfined Compressive Strength (tsf)
Very Soft	Less than 2	Less than 3	Less than 2	Less than 0.25
Soft	2 - 4	3 – 6	2 - 5	0.25 - 0.50
Medium Stiff	4 - 8	6 – 12	5 - 9	0.50 - 1.0
Stiff	8 - 15	12 – 25	9 - 19	1.0 - 2.0
Very Stiff	15 - 30	25 – 65	19 – 31	2.0 - 4.0
Hard	More than 30	More than 65	More than 31	More than 4.0

PRIMARY SOIL DIVISIONS			GROUP SYMBOL	GROUP NAME
COARSE-GRAINED SOILS (more than 50% retained on No. 200 sieve)	GRAVEL (more than 50% of coarse fraction retained on No. 4 sieve)	CLEAN GRAVELS (< 5% fines)	GW or GP	GRAVEL
		GRAVEL WITH FINES (≥ 5% and ≤ 12% fines)	GW-GM or GP-GM	GRAVEL with silt
			GW-GC or GP-GC	GRAVEL with clay
		GRAVELS WITH FINES (> 12% fines)	GM	silty GRAVEL
			GC	clayey GRAVEL
			GC-GM	silty, clayey GRAVEL
	SAND (50% or more of coarse fraction passing No. 4 sieve)	CLEAN SANDS (<5% fines)	SW or SP	SAND
		SANDS WITH FINES (≥ 5% and ≤ 12% fines)	SW-SM or SP-SM	SAND with silt
			SW-SC or SP-SC	SAND with clay
		SANDS WITH FINES (> 12% fines)	SM	silty SAND
			SC	clayey SAND
			SC-SM	silty, clayey SAND
FINE-GRAINED SOILS (50% or more passing No. 200 sieve)	SILT AND CLAY	Liquid limit less than 50	ML	SILT
			CL	CLAY
			CL-ML	silty CLAY
			OL	ORGANIC SILT or ORGANIC CLAY
		Liquid limit 50 or greater	MH	SILT
			CH	CLAY
			OH	ORGANIC SILT or ORGANIC CLAY
HIGHLY ORGANIC SOILS			PT	PEAT

MOISTURE CLASSIFICATION

Term	Field Test
dry	very low moisture, dry to touch
moist	damp, without visible moisture
wet	visible free water, usually saturated

ADDITIONAL CONSTITUENTS

Secondary granular components or other materials such as organics, man-made debris, etc.

Percent	Silt and Clay In: Fine-Grained Soils	Silt and Clay In: Coarse-Grained Soils	Percent	Sand and Gravel In: Fine-Grained Soils	Sand and Gravel In: Coarse-Grained Soils
< 5	trace	trace	< 5	trace	trace
5 – 12	minor	with	5 – 15	minor	minor
> 12	some	silty/clayey	15 – 30	with	with
			> 30	sandy/gravelly	sandy/gravelly

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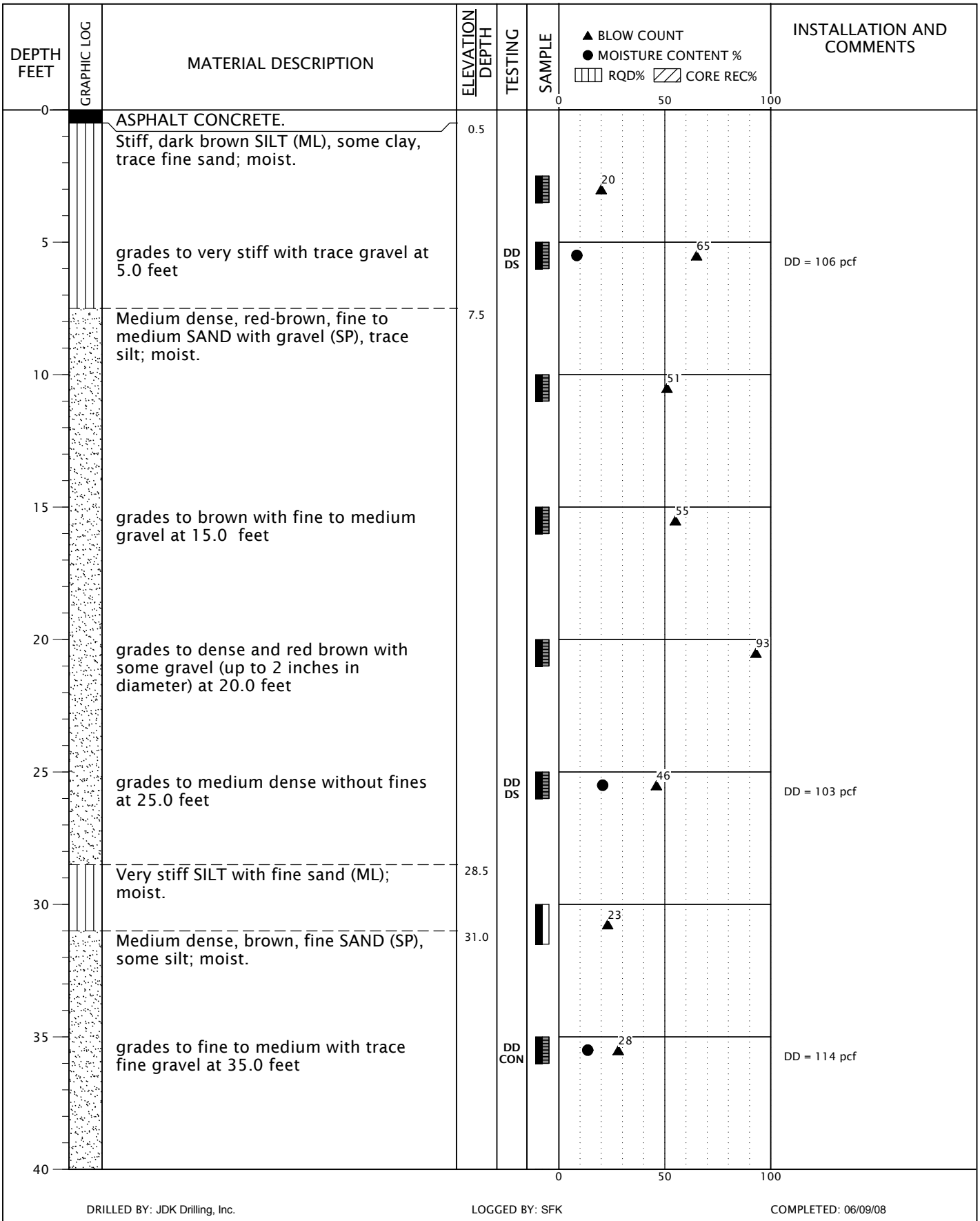
SOIL CLASSIFICATION SYSTEM

TABLE A-2



BORING LOG COUNCILRP-4-02-B1-7.GPJ GEODESIGN.GDT PRINT DATE: 6/27/08:OB

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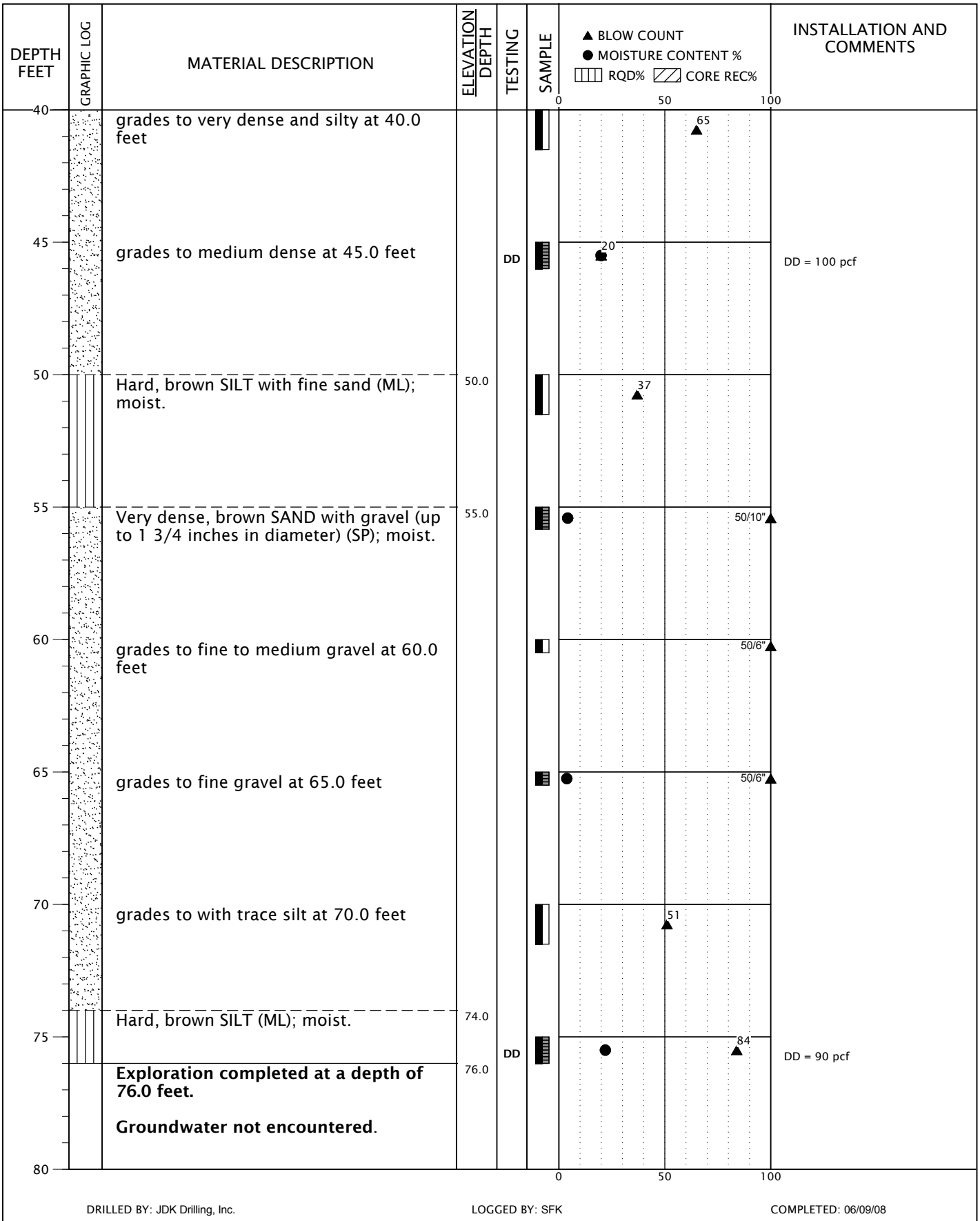
BORING B-1

CALIFORNIA AND FAIR OAKS OFFICE BUILDING
PASADENA, CA

FIGURE A-1



DRILLED BY: JDK Drilling, Inc. LOGGED BY: SFK COMPLETED: 06/09/08

BORING METHOD: hollow-stem auger (see report text) BORING BIT DIAMETER: 8-inch

BORING LOG COUNCILRP-4-02-B1-7.GPJ GEODESIGN.GDT PRINT DATE: 6/27/08:OB

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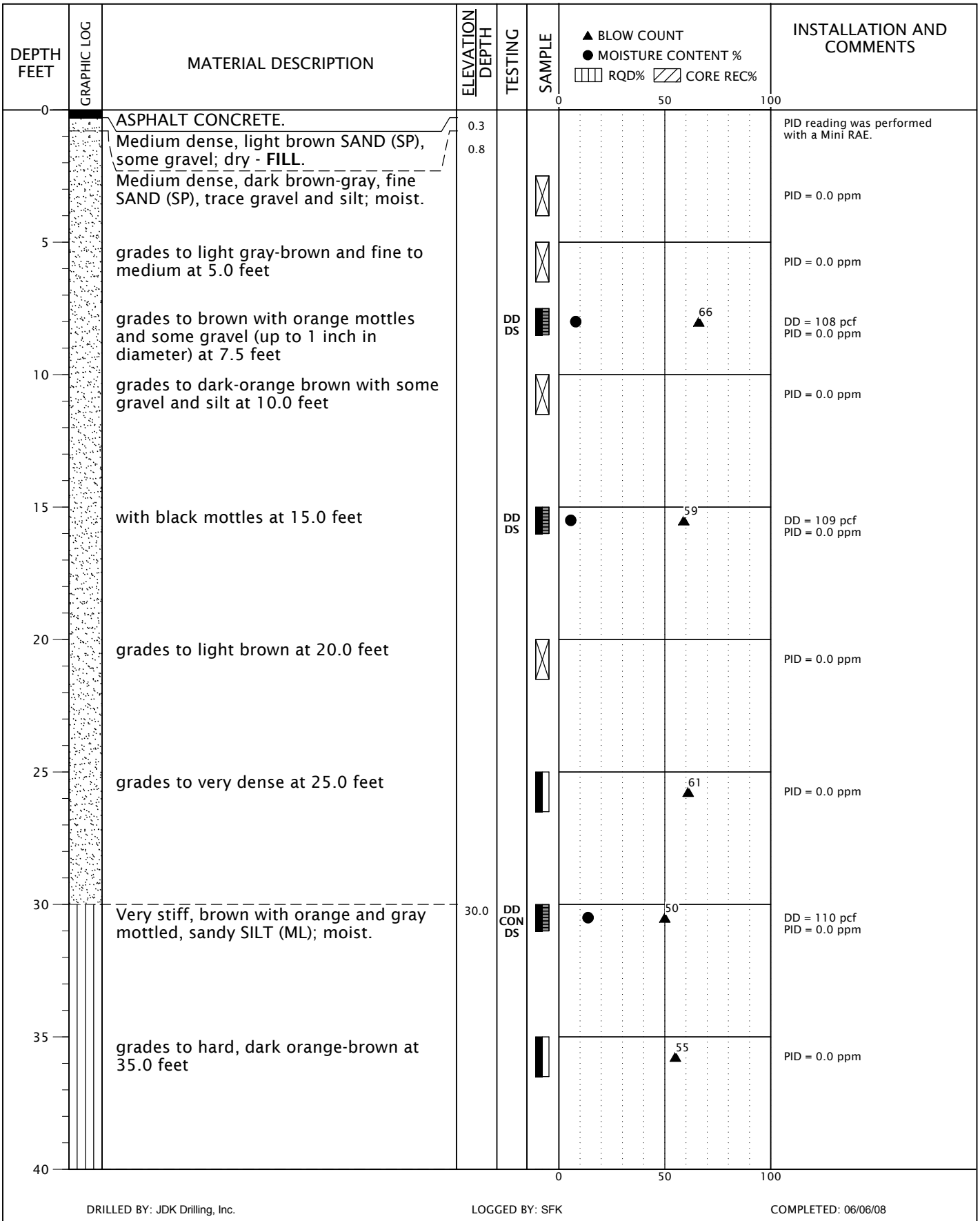
BORING B-1
(continued)

CALIFORNIA AND FAIR OAKS OFFICE BUILDING
PASADENA, CA

FIGURE A-1



DRILLED BY: JDK Drilling, Inc. LOGGED BY: SFK COMPLETED: 06/06/08

BORING METHOD: hollow-stem auger (see report text) BORING BIT DIAMETER: 8-inch

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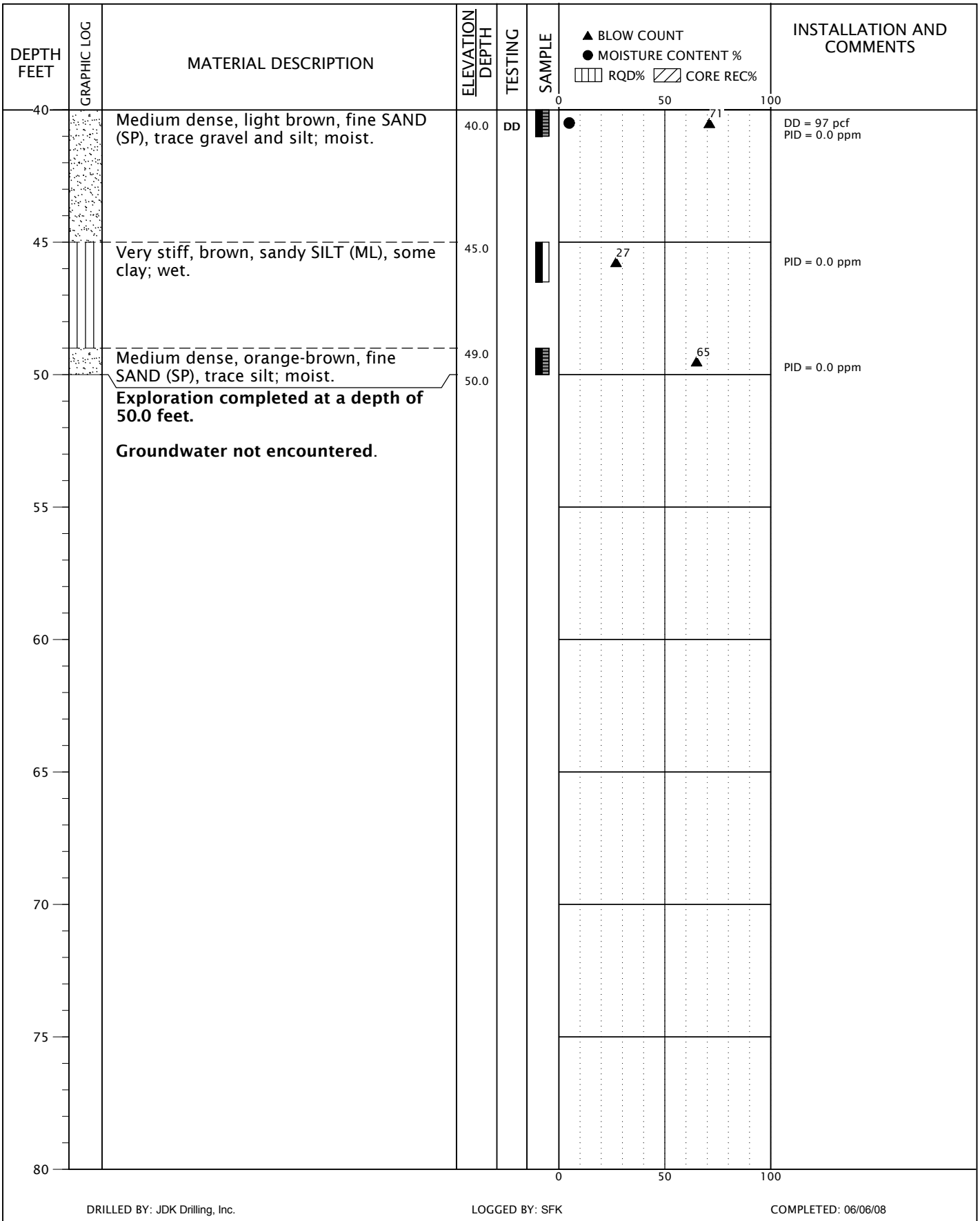
JUNE 2008

BORING B-2

CALIFORNIA AND FAIR OAKS OFFICE BUILDING
PASADENA, CA

FIGURE A-2



BORING LOG COUNCILRP-4-02-B1-7.GPJ GEODESIGN.GDT PRINT DATE: 6/27/08:OB

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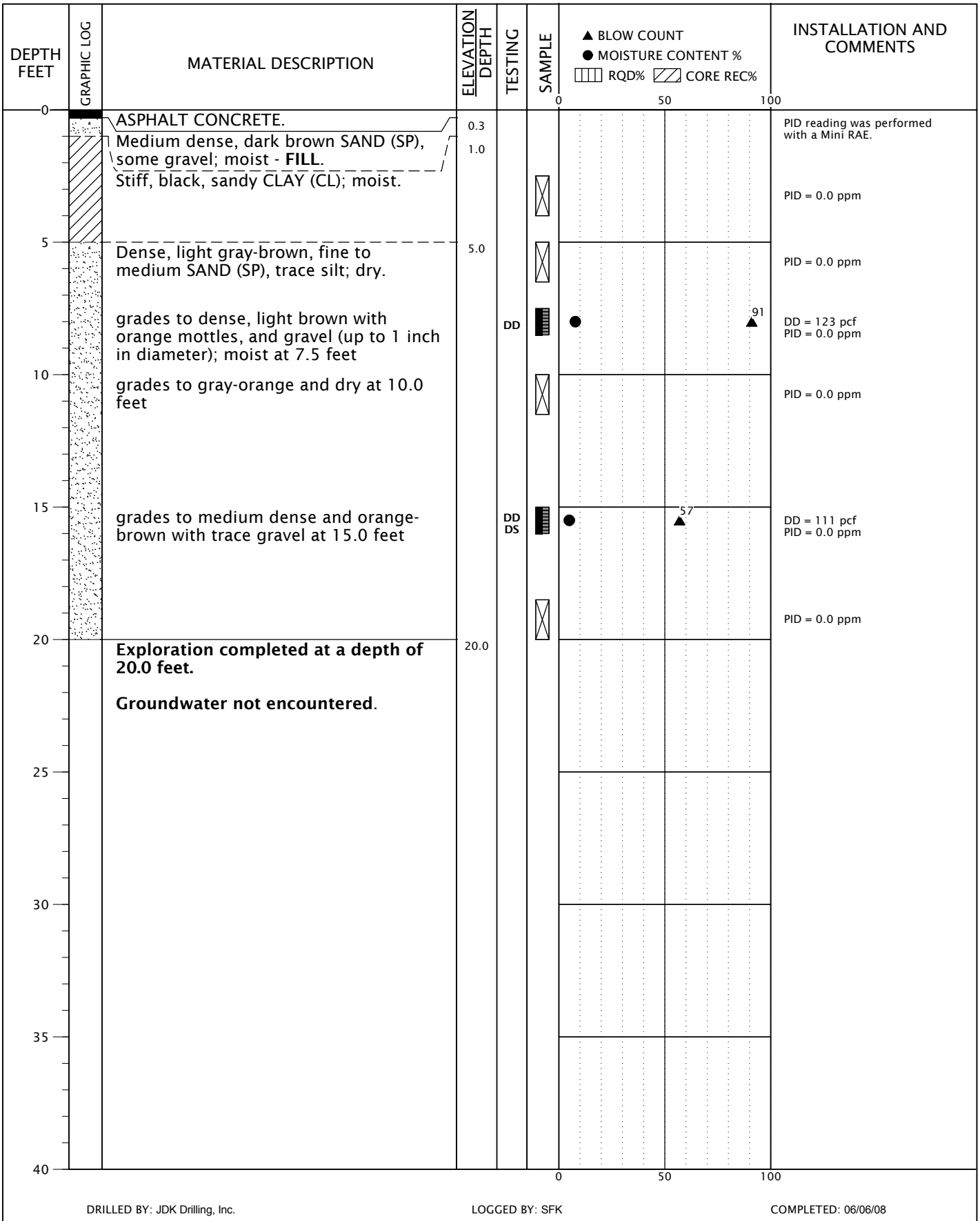
BORING B-2
(continued)

CALIFORNIA AND FAIR OAKS OFFICE BUILDING
PASADENA, CA

FIGURE A-2



DRILLED BY: JDK Drilling, Inc. LOGGED BY: SFK COMPLETED: 06/06/08

BORING METHOD: hollow-stem auger (see report text) BORING BIT DIAMETER: 8-inch

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BORING B-3

CALIFORNIA AND FAIR OAKS OFFICE BUILDING
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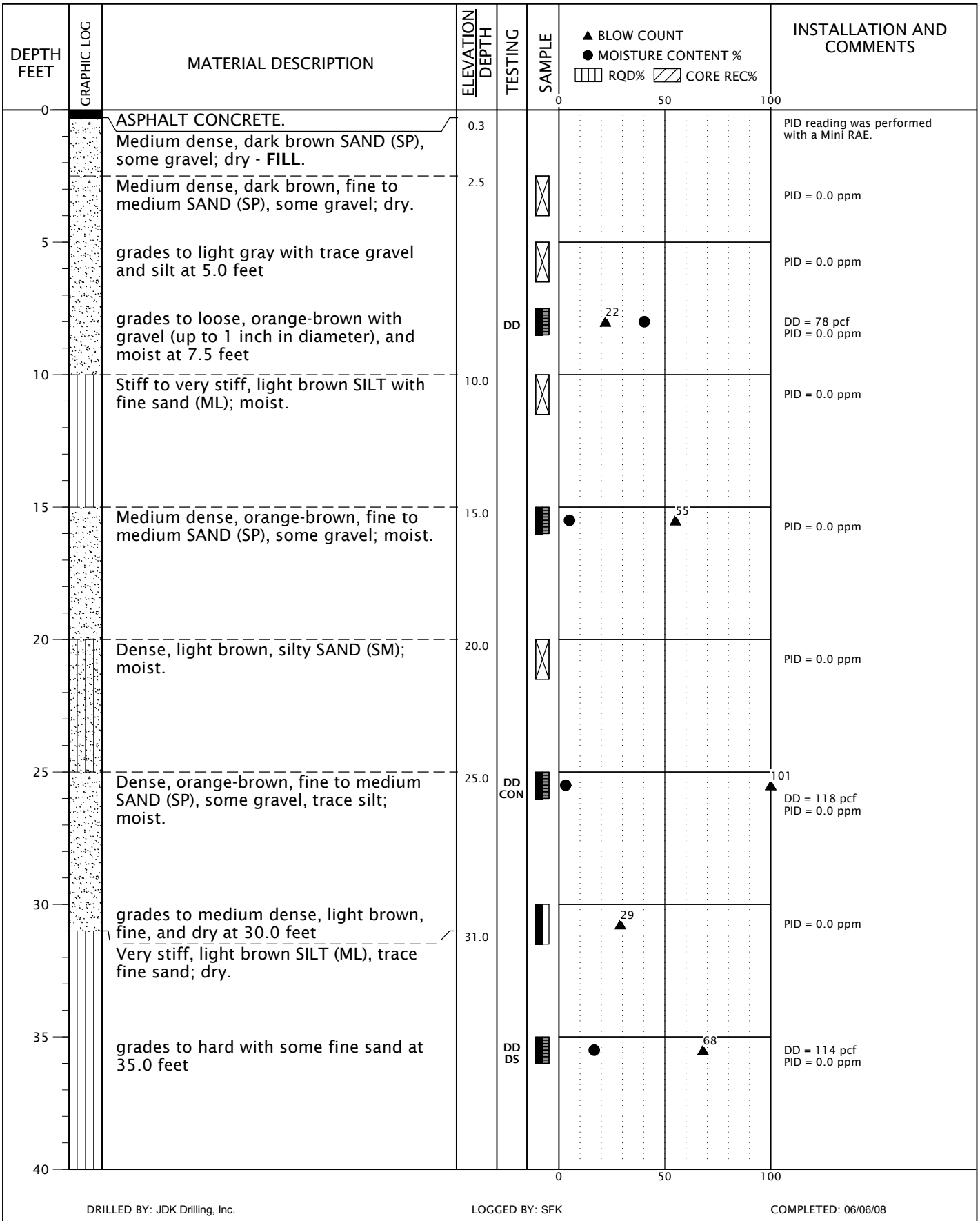
FIGURE A-3

BORING LOG COUNCILRP-4-02-B1-7.GPJ GEODESIGN.GDT PRINT DATE: 6/27/08:OB



DRILLED BY: JDK Drilling, Inc.

LOGGED BY: SFK

COMPLETED: 06/06/08

BORING METHOD: hollow-stem auger (see report text)

BORING BIT DIAMETER: 8-inch

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COUNCILRP-4-02

BORING B-4

JUNE 2008

CALIFORNIA AND FAIR OAKS OFFICE BUILDING
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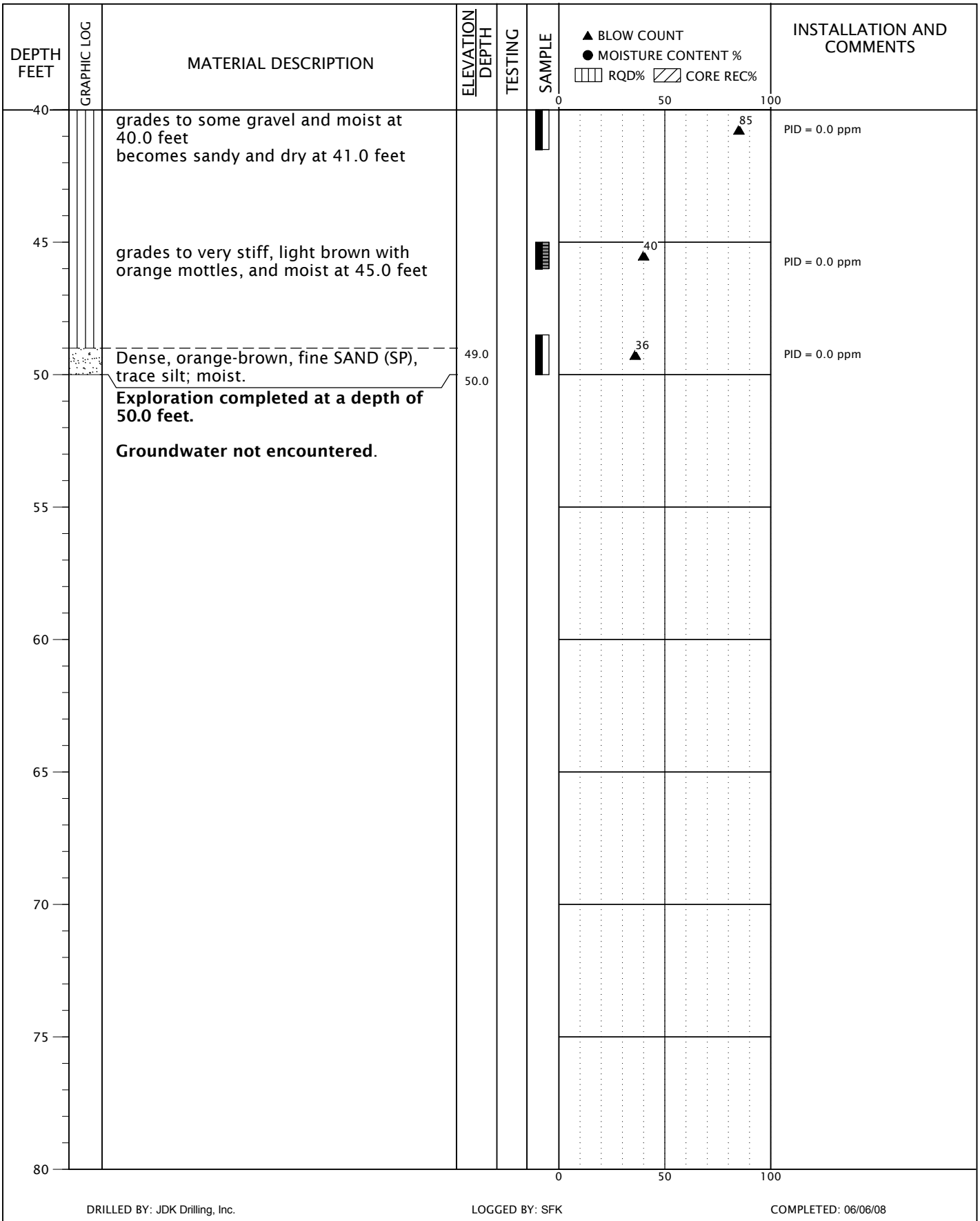
FIGURE A-4

BORING LOG COUNCILRP-4-02-B1-7.GPJ GEODESIGN.GDT PRINT DATE: 6/27/08:OB



DRILLED BY: JDK Drilling, Inc. LOGGED BY: SFK COMPLETED: 06/06/08

BORING METHOD: hollow-stem auger (see report text) BORING BIT DIAMETER: 8-inch

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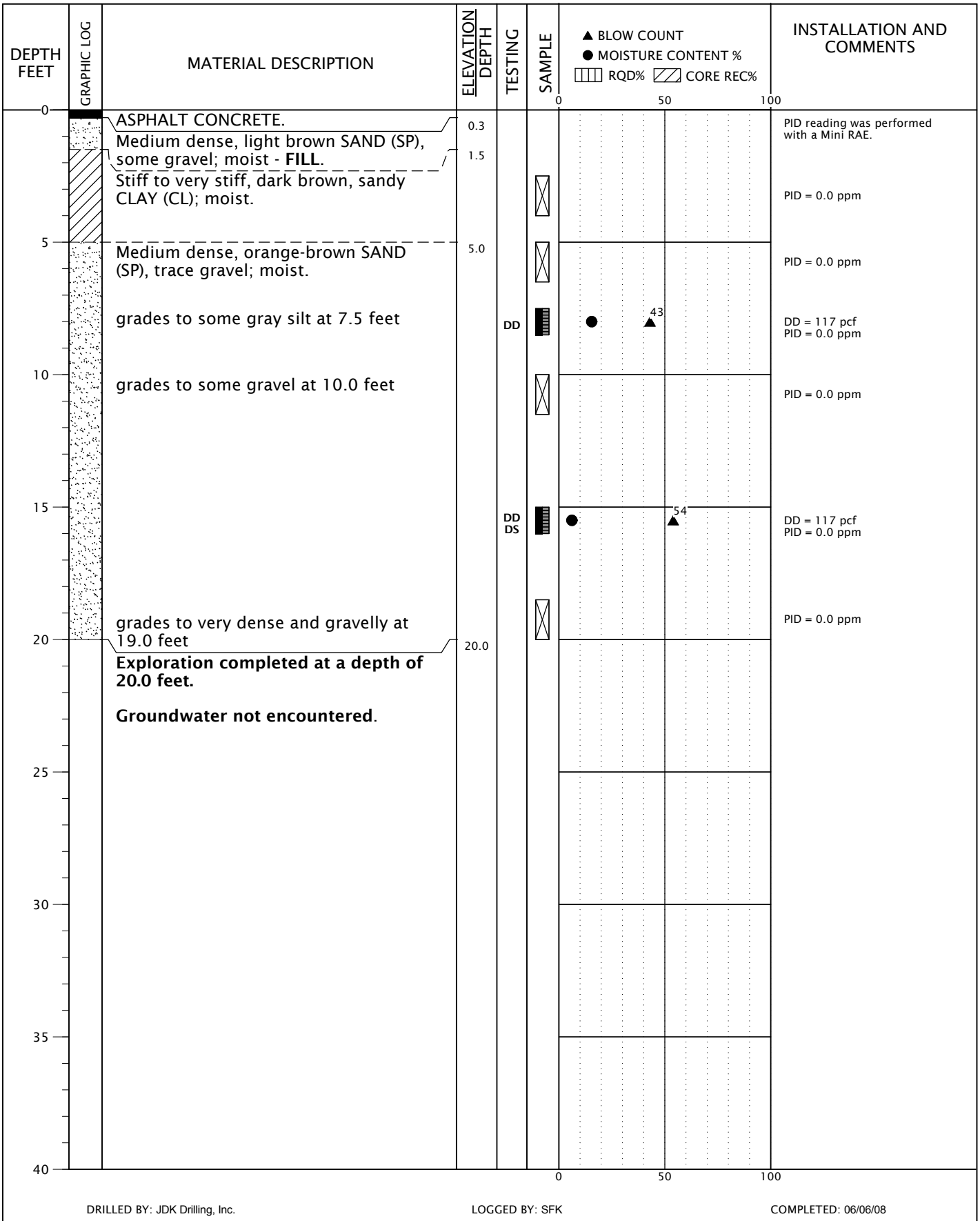
JUNE 2008

BORING B-4
(continued)

CALIFORNIA AND FAIR OAKS OFFICE BUILDING
PASADENA, CA

FIGURE A-4

BORING LOG COUNCILRP-4-02-B1-7.GPJ GEODESIGN.GDT PRINT DATE: 6/27/08:OB



DRILLED BY: JDK Drilling, Inc. LOGGED BY: SFK COMPLETED: 06/06/08

BORING METHOD: hollow-stem auger (see report text) BORING BIT DIAMETER: 8-inch

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COUNCILRP-4-02

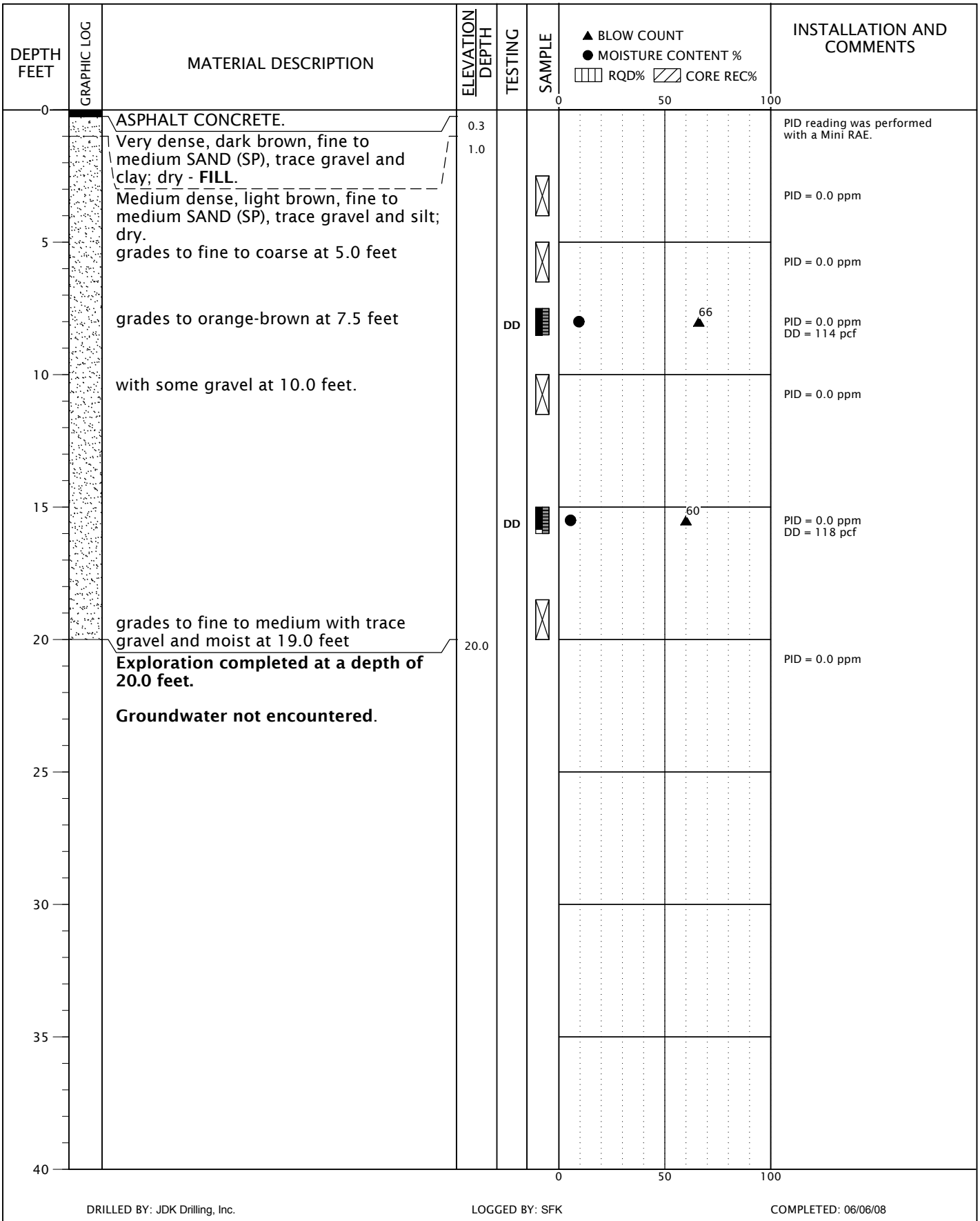
BORING B-5

JUNE 2008

CALIFORNIA AND FAIR OAKS OFFICE BUILDING
PASADENA, CA

FIGURE A-5

BORING LOG COUNCILRP-4-02-B1-7.GPJ GEODESIGN.GDT PRINT DATE: 6/27/08:OB



DRILLED BY: JDK Drilling, Inc. LOGGED BY: SFK COMPLETED: 06/06/08

BORING METHOD: hollow-stem auger (see report text) BORING BIT DIAMETER: 8-inch

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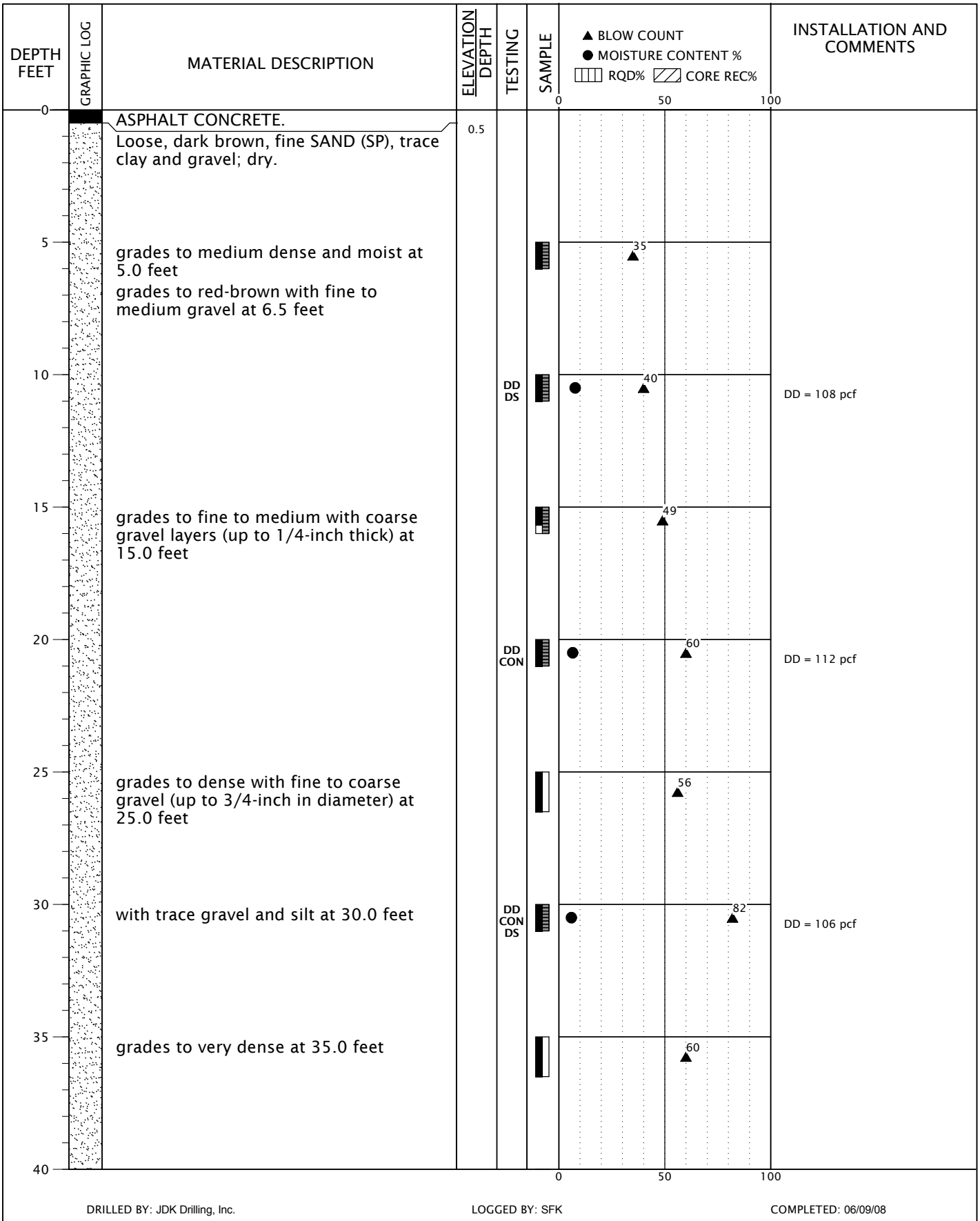
BORING B-6

JUNE 2008

CALIFORNIA AND FAIR OAKS OFFICE BUILDING
PASADENA, CA

FIGURE A-6

BORING LOG COUNCILRP-4-02-B1-7.GPJ GEODESIGN.GDT PRINT DATE: 6/27/08:OB



DRILLED BY: JDK Drilling, Inc. LOGGED BY: SFK COMPLETED: 06/09/08

BORING METHOD: hollow-stem auger (see report text) BORING BIT DIAMETER: 8-inch

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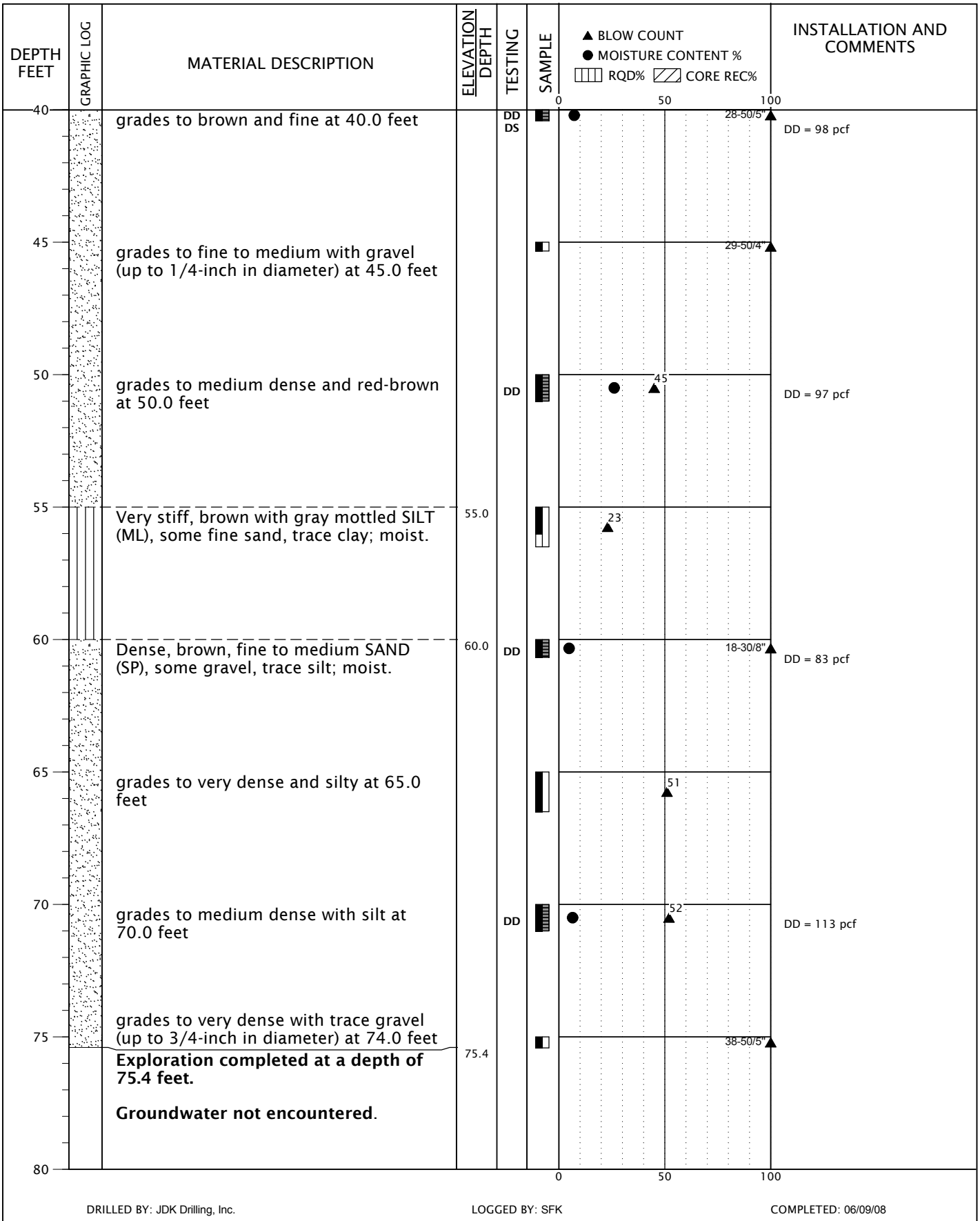
BORING B-7

CALIFORNIA AND FAIR OAKS OFFICE BUILDING
PASADENA, CA

FIGURE A-7



DRILLED BY: JDK Drilling, Inc.

LOGGED BY: SFK

COMPLETED: 06/09/08

BORING METHOD: hollow-stem auger (see report text)

BORING BIT DIAMETER: 8-inch

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JUNE 2008

BORING B-7
(continued)

CALIFORNIA AND FAIR OAKS OFFICE BUILDING
PASADENA, CA

FIGURE A-7

BORING LOG COUNCILRP-4-02-B1-7.GPJ GEODESIGN.GDT PRINT DATE: 6/27/08:OB

APPENDIX B

APPENDIX B

CHEMICAL ANALYTICAL PROGRAM

GENERAL

Chain-of-custody procedures were followed during handling and transport of the soil samples to the analytical laboratory. The laboratory holds the samples in cold storage pending extraction and/or analysis. The analytical results, analytical methods reference, and laboratory quality control records are included in this appendix. The analytical results also are summarized in the tables of this report.

REVIEW OF ANALYTICAL DATA

The analytical laboratory maintains an internal quality assurance program, consisting of a combination of the following:

Blanks - Blanks are laboratory prepared water samples that are free of contaminants. The blanks are carried through the analysis procedure along with the field samples to document that contaminants were not introduced to the samples during sample handling and analysis.

Surrogate Recoveries - Surrogates are organic compounds that are similar in nature to the analytes of concern, but are not normally found in nature. The surrogates are added to quality control and field samples prior to analysis. The percent recovery of the surrogate is calculated to demonstrate acceptable method performance.

Duplicates - Duplicates are obtained by splitting a sample into two parts. The two separate parts are carried through the analyses. The analytical results are then compared by calculating the relative percent difference between the samples.

MS/MSD Recoveries - An MS sample is a sample that has been split into a second portion. The MSD is obtained by further splitting the MS sample. A known concentration of the analyte of interest is added to the MS and MSD samples. The analytical results for both samples are then compared for relative percent difference and percent recovery to demonstrate acceptable method performance.

BS/BSD Recoveries - BS and BSD samples are obtained and analyzed in the same procedure as the MS/MSD samples; however, the laboratory blank sample is used to obtain the BS/BSD samples. The percent recovery and relative percent difference of the known concentration of analyte of interest added to the BS/BSD sample is calculated after chemical analyses to demonstrate acceptable method performance.

SUMMARY OF ANALYTICAL DATA REVIEW

GeoDesign reviewed the attached analytical data reports for data quality exceptions and deviations from acceptable method performance criteria. In our opinion, the analytical data are acceptable for their intended use.

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Anaheim, CA 92806

Telephone (714) 634-3701
Attn Susan F. Kirkgard

Number of Pages 6
Date Received 06/18/2008
Date Reported 06/25/2008

Job Number	Ordered	Client
38261	06/18/2008	GEODES

Project ID: COUNCIL RP 4-02
Project Name:
Site: 612-624 S. Fair Oaks Ave.
Pasadena, CA

Enclosed are the results of analyses on 4 samples analyzed as specified on attached chain of custody.

Amolk MOLKY Brar
Laboratory Manager

Rojert G. Araghi
Laboratory Director

AMERICAN SCIENTIFIC LABORATORIES, LLC

Environmental Testing Services

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ANALYTICAL RESULTS

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Site

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Telephone: (714)634-3701
Attn: Susan F. Kirkgard
Page: 2
Project ID: COUNCIL RP 4-02

ASL Job Number	Submitted	Client
38261	06/18/2008	GEODES

Method: 6010B/7471A, CCR Title 22 Metals (TTLC)

QC Batch No: 062008-1

Our Lab I.D.		220106	220107	220108	220109	
Client Sample I.D.		B1/B7	B5/B6	B3/B4	B2	
Date Sampled		06/09/2008	06/06/2008	06/06/2008	06/06/2008	
Date Prepared		06/20/2008	06/20/2008	06/20/2008	06/20/2008	
Preparation Method						
Date Analyzed		06/20/2008	06/20/2008	06/20/2008	06/20/2008	
Matrix		Soil	Soil	Soil	Soil	
Units		mg/Kg	mg/Kg	mg/Kg	mg/Kg	
Dilution Factor		1	1	1	1	
Analytes	PQL	Results	Results	Results	Results	
AA Metals						
Mercury	0.0500	0.145	0.584	0.0514	0.190	
ICP Metals						
Antimony	0.500	0.816	1.05	0.654	1.00	
Arsenic	0.250	0.333	1.50	1.93	1.73	
Barium	0.500	61.7	49.4	56.4	56.8	
Beryllium	0.500	ND	ND	ND	ND	
Cadmium	0.500	ND	ND	ND	ND	
Chromium	0.500	17.1	8.54	21.4	10.7	
Cobalt	0.500	2.76	2.98	3.80	4.88	
Copper	0.500	10.7	11.3	9.90	10.9	
Lead	0.250	6.30	2.72	15.7	3.47	
Molybdenum	0.500	0.711	0.642	ND	0.514	
Nickel	0.500	5.27	3.05	3.96	4.79	
Selenium	0.500	ND	ND	ND	ND	
Silver	0.500	ND	ND	ND	ND	
Thallium	0.500	ND	ND	ND	ND	
Vanadium	0.500	29.2	22.0	12.8	21.4	
Zinc	0.500	27.7	24.0	23.9	30.9	

QUALITY CONTROL REPORT

QC Batch No: 062008-1

Analytes	LCS % REC	LCS/LCSD % Limit								
AA Metals										
Mercury	96	80-120								
ICP Metals										
Antimony	93	80-120								
Arsenic	98	80-120								

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ANALYTICAL RESULTS

Project ID: COUNCIL RP 4-02

ASL Job Number	Submitted	Client
38261	06/18/2008	GEODES

Method: 6010B/7471A, CCR Title 22 Metals (TTLC)

QUALITY CONTROL REPORT

QC Batch No: 062008-1

Analytes	LCS % REC	LCS/LCSD % Limit								
ICP Metals										
Barium	104	80-120								
Beryllium	105	80-120								
Cadmium	99	80-120								
Chromium	99	80-120								
Cobalt	100	80-120								
Copper	101	80-120								
Lead	99	80-120								
Molybdenum	99	80-120								
Nickel	101	80-120								
Selenium	98	80-120								
Silver	90	80-120								
Thallium	99	80-120								
Vanadium	97	80-120								
Zinc	109	80-120								

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ANALYTICAL RESULTS

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Anaheim, CA 92806

Site

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Pasadena, CA

Telephone: (714)634-3701
Attn: Susan F. Kirkgard
Page: 4
Project ID: COUNCIL RP 4-02

ASL Job Number	Submitted	Client
38261	06/18/2008	GEODES

Method: 8015B, TPH DROs and OROs (Diesel and Oil Range Organics)

QC Batch No: 062308-1P

Our Lab I.D.		220106	220107	220108	220109	
Client Sample I.D.		B1/B7	B5/B6	B3/B4	B2	
Date Sampled		06/09/2008	06/06/2008	06/06/2008	06/06/2008	
Date Prepared		06/23/2008	06/23/2008	06/23/2008	06/23/2008	
Preparation Method						
Date Analyzed		06/23/2008	06/23/2008	06/23/2008	06/23/2008	
Matrix		Soil	Soil	Soil	Soil	
Units		mg/Kg	mg/Kg	mg/Kg	mg/Kg	
Dilution Factor		1	1	1	1	
Analytes	PQL	Results	Results	Results	Results	
TPH DROs (C10 to C28)	10.0	ND	ND	ND	ND	
TPH OROs (C28+)	50.0	ND	ND	ND	ND	

Our Lab I.D.		220106	220107	220108	220109	
Surrogates	% Rec Limit	% Rec.	% Rec.	% Rec.	% Rec.	
Surrogate Percent Recovery						
Chlorobenzene	70-120	106	88	98	94	

QUALITY CONTROL REPORT

QC Batch No: 062308-1P

Analytes	MS % REC	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit					
Diesel	104	104	<1	75-120	<20					

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ANALYTICAL RESULTS

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Site

612-624 S. Fair Oaks Ave.
Pasadena, CA

Page: 5

Project ID: COUNCIL RP 4-02

ASL Job Number	Submitted	Client
38261	06/18/2008	GEODES

Method: 8260B, BTEX

QC Batch No: 062008-2C

Our Lab I.D.		220106	220107	220108	220109	
Client Sample I.D.		B1/B7	B5/B6	B3/B4	B2	
Date Sampled		06/09/2008	06/06/2008	06/06/2008	06/06/2008	
Date Prepared		06/21/2008	06/21/2008	06/21/2008	06/21/2008	
Preparation Method						
Date Analyzed		06/21/2008	06/21/2008	06/21/2008	06/21/2008	
Matrix		Soil	Soil	Soil	Soil	
Units		ug/kg	ug/kg	ug/kg	ug/kg	
Dilution Factor		1	1	1	1	
Analytes	PQL	Results	Results	Results	Results	
Benzene	2.00	ND	ND	ND	ND	
Ethylbenzene	2.00	ND	ND	ND	ND	
Toluene (Methyl benzene)	2.00	ND	ND	ND	ND	
o-Xylene	2.00	ND	ND	ND	ND	
m- & p-Xylenes	4.00	ND	ND	ND	ND	

Our Lab I.D.		220106	220107	220108	220109	
Surrogates	% Rec Limit	% Rec	% Rec	% Rec	% Rec	
Surrogate Percent Recovery						
Bromofluorobenzene	70-120	92	92	95	96	
Dibromofluoromethane	70-120	112	110	110	114	
Toluene-d8	70-120	102	101	104	103	

QUALITY CONTROL REPORT

QC Batch No: 062008-2C

Analytes	MS % REC	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit					
Benzene	116	111	4.4	75-120	15					
Chlorobenzene	100	96	4.1	75-120	15					
1,1-Dichloroethene (1,1-Dichloroethylene)	109	111	1.8	75-120	15					
Toluene (Methyl benzene)	105	101	3.9	75-120	15					
Trichloroethene (TCE)	102	97	5.0	75-120	15					

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ANALYTICAL RESULTS

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Page: 6

Project ID: COUNCIL RP 4-02

Site

612-624 S. Fair Oaks Ave.
Pasadena, CA

ASL Job Number	Submitted	Client
38261	06/18/2008	GEODES

Method: 8260B, TPH GROs(Gasoline Range Organics)

QC Batch No: 062008-2C

Our Lab I.D.		220106	220107	220108	220109	
Client Sample I.D.		B1/B7	B5/B6	B3/B4	B2	
Date Sampled		06/09/2008	06/06/2008	06/06/2008	06/06/2008	
Date Prepared		06/21/2008	06/21/2008	06/21/2008	06/21/2008	
Preparation Method						
Date Analyzed		06/21/2008	06/21/2008	06/21/2008	06/21/2008	
Matrix		Soil	Soil	Soil	Soil	
Units		ug/kg	ug/kg	ug/kg	ug/kg	
Dilution Factor		1	1	1	1	
Analytes	PQL	Results	Results	Results	Results	
TPH GROs (C6 to C10)	500	ND	ND	ND	ND	

Our Lab I.D.		220106	220107	220108	220109	
Surrogates	% Rec Limit	% Rec.	% Rec.	% Rec.	% Rec.	
Surrogate Percent Recovery						
Bromofluorobenzene	70-120	92	92	95	96	
Dibromofluoromethane	70-120	112	110	110	114	
Toluene-d8	70-120	102	101	104	103	

QUALITY CONTROL REPORT

QC Batch No: 062008-2C

Analytes	MS % REC	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit					
Benzene	116	111	4.4	75-120	15					
Chlorobenzene	100	96	4.1	75-120	15					
1,1-Dichloroethene (1,1-Dichloroethylene)	109	111	1.8	75-120	15					
MTBE	116	106	9.0	75-120	15					
Toluene (Methyl benzene)	105	101	3.9	75-120	15					
Trichloroethene (TCE)	102	97	5.0	75-120	15					

APPENDIX C

LA Testing
10772 Noel St., Los Alamitos, CA 90720
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Attn: ***Josh Handler***
GeoDesign, Inc.
2121 South Towne Center Place
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Fax: Phone: (714) 634-3701

Project: **Council RP-4-02**

Customer ID: 32GDES78
Customer PO:
Received: 06/09/08 1:45 PM
LA Testing Order: 330805503

LA Testing Proj:
Analysis Date: 6/10/2008
Report Date: 6/10/2008

Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos				Asbestos
Sample	**Location**	**Appearance**	**%**	**Fibrous**	**%**	**Non-Fibrous**	**% Type**
1 *330805503-0001*	GVP, Kitchen Pantry, East	White/Brown Fibrous Heterogeneous	15%	Cellulose	85%	Gypsum	**None Detected**
2 *330805503-0002*	GVP, Dining Area, West	White/Beige Fibrous Heterogeneous	50% 15%	Cellulose Min. Wool	10% 25%	Non-fibrous (other) Perlite	**None Detected**
3 *330805503-0003*	GVP, Restroom Hallway, East	Black/Tan Fibrous Heterogeneous	2%	Cellulose	96%	Non-fibrous (other)	**2% Chrysotile**
4 Floor Tile *330805503-0004*	GCP, Dining Area, South	Brown Fibrous Homogeneous			40% 45%	Ca Carbonate Non-fibrous (other)	**15% Chrysotile**
4 Mastic *330805503-0004A*	GCP, Dining Area, South	Black Non-Fibrous Homogeneous			100%	Non-fibrous (other)	**None Detected**
5 *330805503-0005*	GCP, Dining Area, Above Dropped Ceiling	Brown/Beige Fibrous Heterogeneous	95%	Cellulose	5%	Non-fibrous (other)	**None Detected**
6 *330805503-0006*	GVP, Dining Rom, Above Dropped Ceiling	Brown Non-Fibrous Homogeneous			100%	Non-fibrous (other)	**None Detected**

Analyst(s)

Fred Chappelear (20)

Derrick Tanner, Laboratory Manager
or other approved signatory

Due to magnification limitations inherent in PLM, asbestos fibers in dimensions below the resolution capability of PLM may not be detected. Samples reported as <1% or none detected may require additional testing by TEM to confirm asbestos quantities. The above test report relates only to the items tested and may not be reproduced in any form without the express written approval of LA Testing's. LA Testing's liability is limited to the cost of analysis. LA Testing bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client.Samples received in good condition unless otherwise noted.

NVLAP Lab Code 101384-0, Cal ELAP # 1406

LA Testing
10772 Noel St., Los Alamitos, CA 90720
Phone: (714) 828-4999 Fax: (714) 828-4944 Email: losalamitoslab@latesting.com

Attn: **Josh Handler**
GeoDesign, Inc.
2121 South Towne Center Place
Suite 130
Anaheim, CA 92806

Fax: Phone: (714) 634-3701

Project: **Council RP-4-02**

Customer ID: 32GDES78
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Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos			Asbestos
Sample	Location	Appearance	% Fibrous		% Non-Fibrous	% Type
7 *330805503-0007*	GVP, Exterior, NW Corner	Black Fibrous Homogeneous	70%	Cellulose	30% Non-fibrous (other)	None Detected
8 *330805503-0008*	GVP, Exterior, NW Corner	Gray Non-Fibrous Homogeneous			80% Non-fibrous (other) 20% Quartz	None Detected
9 *330805503-0009*	Massage Studio, Restroom, North	White/Brown/Green Fibrous Heterogeneous	25% <1%	Cellulose Glass	75% Gypsum	None Detected
10 *330805503-0010*	Massage Studio, Laundry Room	Beige Fibrous Homogeneous	60%	Cellulose	5% Non-fibrous (other) 35% Perlite	None Detected
11 *330805503-0011*	Massage Studio, Laundry Room	Beige Fibrous Homogeneous	3%	Cellulose	85% Non-fibrous (other) 12% Quartz	None Detected
12 *330805503-0012*	Marty's Rear Office Area	White/Brown/Beige Fibrous Heterogeneous	35%	Cellulose	55% Gypsum 10% Non-fibrous (other)	None Detected
13 *330805503-0013*	Mantry's, Rear Office Area	White Non-Fibrous Heterogeneous	2%	Cellulose	80% Non-fibrous (other) 18% Quartz	None Detected

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or other approved signatory

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Phone: (714) 828-4999 Fax: (714) 828-4944 Email: losalamitoslab@latesting.com

Attn: **Josh Handler**
GeoDesign, Inc.
2121 South Towne Center Place
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Fax: Phone: (714) 634-3701

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Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos				Asbestos
Sample	**Location**	**Appearance**	**%**	**Fibrous**	**%**	**Non-Fibrous**	**% Type**
14 *330805503-0014*	Offices Adj to South Dining	Brown/Beige Fibrous Heterogeneous	60%	Cellulose	40%	Non-fibrous (other)	**None Detected**
15 Floor Tile *330805503-0015*	Marty's Bar Area	Black Non-Fibrous Homogeneous			60% 40%	Ca Carbonate Non-fibrous (other)	**None Detected**
15 Mastic *330805503-0015A*	Marty's Bar Area	Yellow Non-Fibrous Homogeneous			100%	Non-fibrous (other)	**None Detected**
15 Leveling Compound *330805503-0015B*	Marty's Bar Area	White Non-Fibrous Homogeneous			100%	Non-fibrous (other)	**None Detected**
16 *330805503-0016*	Marty's Dining Area	Tan/Black Fibrous Heterogeneous	90%	Cellulose	10%	Non-fibrous (other)	**None Detected**
17 *330805503-0017*	Marty's Dining Area	Brown Non-Fibrous Homogeneous	<1% <1%	Cellulose Wollastonite	100%	Non-fibrous (other)	**None Detected**

Analyst(s)

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Derrick Tanner, Laboratory Manager
or other approved signatory

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NVLAP Lab Code 101384-0, Cal ELAP # 1406

THIS IS THE LAST PAGE OF THE REPORT.

3308 0550 3

GEODESIGN INC

Asbestos Bulk Sample Chain of Custody

Analysis	(PLM)	TEM	1000PC
TAT	3hr 6hr 12hr (24hr) 48hr 72hr Other		

GeoDesign Project #	Inspector	# of Samples	Date Collected	Page #		Total Pages
CouncilRP-4-02	JAH	17	6/6/08	1	of	1

Sample #	Material	Sample Location	Quantity (SF)	Condition
1	Drywall	GVP, kitchen, pantry, east	>5,000	Good
2	Ceiling Tile, 2'x4'	dining area, west	1,200	Good
3	Tan flooring/carpet mastic	restroom hallway, east	1,500	Good
4	Flooring & mastic beneath carpet	dining area, south	1,200	Good
5	12" ceiling tile, straight hole pattern	dining area, above dropped ceiling	1,500	Good
6	ceiling tile mastic	GVP, dining room, above dropped ceiling	1,500	Good
7	Vapor Barrier paper	GVP, exterior, NW corner	>5,000	Good
8	Exterior Stucco	exterior, NW corner	5,500	Good
9	Drywall	Massage studio, restroom, north	75,000	Good
10	2'x4' ceiling tile	Massage studio, laundry room	1,500	Good
11	Plaster wall	Massage studio, laundry room, north wall, above dropped ceiling	5,000	Damaged
12	Drywall	Monty's, rear office area	1,000	Good
13	Plaster	Monty's, rear office area	>5,000	Good
14	Flooring	offices adj. to South Dining	800	Good
15	12" Black floor tile & mastic	Monty's Bar Area	400	Good
16	12" Black ceiling tile	Monty's dining Area	3,000	Good
17	Black ceiling tile mastic	↓	↓	

Relinquished by (sign, date & time)	Received by (sign, date & time)
6/9/08 1:40pm	Pisarchuk
Relinquished by (sign, date & time)	Received by (sign, date & time)
	6/9/08 1:45pm

ACRONYMS

ACRONYMS

AC	asphalt concrete
ACM	asbestos-containing material
ASTM	American Society for Testing and Materials
BS	blank spike
BSD	blank spike duplicate
BGS	below the ground surface
Cal-OSHA	California Occupational Safety and Health Administration
CCR	California Code of Regulations
CMU	concrete masonry unit
DHS	Department of Health Services
DRO	diesel-range organics
EPA	U.S. Environmental Protection Agency
LBP	lead-based paint
mg/cm^2	milligrams per square centimeter
mg/Kg	milligrams per kilogram
MRL	method reporting limits
MS	matrix spike
MSD	matrix spike duplicate
NA	not applicable
ND	not detected
ORO	oil-range organics
PID	photoionization detector
ppm	parts per million
SCAQMD	South Coast Air Quality Management District
SPT	standard penetration test
TPH	total petroleum hydrocarbons
XRF	x-ray fluorescence

PHASE I AND LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT OF THE PROPERTY COMPOSED OF ASSESSOR'S PARCEL NUMBERS 5720-001-001, 5720-001-002, 5720-001-003, 5720-001-004 AND 5720-001-005 AT 590 AND 592 SOUTH FAIR OAKS AVENUE AND 10 AND 28 EAST CALIFORNIA BOULEVARD LOCATED SOUTHEAST OF THE INTERSECTION OF SOUTH FAIR OAKS AVENUE AND EAST CALIFORNIA BOULEVARD PASADENA, CALIFORNIA

Prepared for:
Urban Development Properties
17891 Cartwright Road, Suite 150
Irvine, California 92614

Prepared by:
Carlin Environmental Consulting
14661 Myford Road, Suite A
Tustin, California 92780

May 3, 2007

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9- STATEMENT OF QUALIFICATIONS 10- EDR REPORT

Carlin Environmental Consulting, Inc.
Assessment ◆ Remediation ◆ Mitigation Design

14661 Myford Road, Suite A
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May 3, 2007 Log: CEC -1691-1

Urban Development Properties
17891 Cartwright Road, Suite 150
Irvine, California 92614
(949) 278-6099
Attention: Alan Dibartolomeo

Subject: Phase I and Limited Phase II - Environmental Site Assessment of the Property Compose of Assessor's Parcel Numbers 5720-001-001, 5720-001-002, 5720-001-003, 5720-001-004 and 5720-001-005 at 590 and 592 South Fair Oaks Avenue and 10 and 28 East California Boulevard; Located Southeast of the Intersection of South Fair Oaks Avenue and East California Boulevard, Pasadena, California

Ladies and Gentlemen:

1.0 INTRODUCTION

This report presents the findings of a Phase I and Limited Phase II - Environmental Site Assessment conducted by Carlin Environmental Consulting, Inc. (CEC) on the property composed of Assessor's Parcel Numbers 5720-001-001, 5720-001-002, 5720-001-003, 5720-001-004 and 5720-001-005 at 590 and 592 South Fair Oaks Avenue and 10 and 28 E. California Boulevard located southeast of the intersection of South Fair Oaks Avenue and East California Boulevard in the City of Pasadena, Los Angeles County California (see Figure 1 - Site Location Map). This assessment was conducted in general accordance with an agreement between Urban Development Properties and CEC.

2.0 ASSESSMENT STANDARDS

2.1 Purpose

The purpose of this investigation is to evaluate the general environmental conditions on the site by reviewing available information for the site and vicinity, researching documents, and inspecting the site and vicinity for possible usage, past or present, of potentially hazardous materials for a Phase I - Environmental Site Assessment. Within this resulting assessment report, CEC identifies observed and/or documented recognized environmental conditions, if any exist, that may have significantly impacted the site. Additionally, soil samples were collected from three locations throughout the site, in conjunction with a geotechnical investigation, to assess subsurface conditions prior to redevelopment of the site.

2.2 Methodology

This environmental investigation and the resulting report were prepared generally utilizing the procedures presented in ASTM E 1527-05, Standard Practice for Environmental Site Assessments, Phase I Environmental Site Assessment Process. Site and vicinity inspections, owner and tenant interviews, and document research were performed generally according to ASTM guidelines.

2.3 Limitations and Exceptions

This environmental investigation was conducted using a degree of care and skill normally exercised, under similar circumstances, by reputable soil engineers, geologists, and environmental scientists practicing in this and similar localities. Opinions presented herein apply to site conditions existing at the time of our study and cannot necessarily be taken to apply to site conditions or changes that we are not aware of or have not had the opportunity to evaluate. Conditions outside of ASTM 1527-05 such as indoor air quality (vapor intrusion), asbestos, lead-based paint, etc., are outside of the scope of this assessment and were not evaluated as part of the Phase I assessment. CEC also assumes that the information provided by the owners, reviewed reports, regulatory database provider, and regulatory agencies is true and reliable. No other warranty, expressed or implied, is made as to the conclusions and professional advice included in this document.

The format of this assessment report generally follows the recommended ASTM format as presented in E 1527-05. Some ASTM format sections, such as descriptions of site and existing improvements, have been restructured and/or combined where appropriate and others, such as Special Terms and Conditions, that are not applicable to this assessment have been eliminated. New sections, such as Topography and Geology have been added because these are considered appropriate to this assessment. Of special note, the Executive Summary section of the ASTM format has been eliminated to encourage interested parties to read the entire report. Text that is normally presented in that summary has been incorporated into the Conclusions and Recommendations section.

3.0 SITE DESCRIPTION

3.1 Description and Location

Located in the southwestern portion of the City of Pasadena, the subject site consists of an approximately 0.96-acre rectangular parcel of land that is currently developed as a commercial center. The site is located within the antique district of Pasadena. In addition to commercial sites, several laundry facilities are located to the north and east of the site.

No surface water exists on the site. The closest body of water is the Arroyo Seco stream channel located approximately 7/8 mile west of the subject site.

3.2 Site and Vicinity

CEC personnel inspected the site and its surrounding area on March 14, 2007. The site consists of an approximately 0.96-acre rectangular piece of land that is currently developed as two restaurants, a massage parlor, an auto body repair shop and associated parking lots. Due to complications associated with the pending real estate transaction, CEC personnel was not allowed to inspect the interior of the buildings at the subject site. The conclusions presented in this report are limited to observations made from the exterior of the property, file research and owner interviews. Three buildings are present at the subject site. Two of the buildings share a wall and are located along the western boundary

of the subject site. These buildings house Monty's Restaurant at 592 South Fair Oaks Avenue, Grandview Palace Chinese Restaurant at 590 South Fair Oaks Avenue and a massage parlor at 10 East California Boulevard. The third building is located in the central portion of the eastern boundary. This building, at 28 East California Boulevard, is occupied by M&G Auto Body. The southern 1/3 of the site, the central portion and the northeastern corner of the site are developed as parking lots. Access to the subject site can be gained through driveways at the southwestern corner at South Fair Oaks Avenue, at the southeastern corner at Edmonson Alley, at the northeast corner at Edmonson Alley and East California Boulevard and at the central northern boundary at East California Boulevard. No significant stains were noted in the accessible portions of the subject site. A pole mounted transformer is located in Edmonson Alley near the southeastern corner of the building at 28 East California Boulevard. No stains or evidence of leaks were noted on or around the pole. Photographs of the site are not available, as it was feared that taking photographs may upset the tenants at the site.

The subject site is bound on the north by East California Boulevard. A Hollywood Movies video store and a Boston Market restaurant are located directly north of East California Boulevard. Fashion Cleaners, a dry cleaning shop, is located northwest, diagonally across East California Boulevard, of the subject site. South Fair Oaks Avenue bounds the subject site to the west. The property west of South Fair Oaks is currently under redevelopment as a medical facility. The property is bound to the south by a Burger King restaurant and associated parking. Edmonson Alley bounds the property to the east. California Linen Service and Dy-Dee Service, a diaper laundry service, are located directly east of Edmonson Alley. Midas Metal Products is located southeast of the subject site across Edmonson Alley. No areas of significant environmental concern were noted in the surrounding properties at the time of the site inspection.

3.3 Topography and Geology

The site is at an approximate elevation of 783 feet above mean sea level (msl). Surface drainage at the subject site is generally to the south.

The site is situated in the southwestern alluvial plain of the San Gabriel Mountains of the Transverse Ranges of Southern California. The surficial soils at the subject site are composed of Holocene alluvial fan deposits from the San Gabriel Mountains. These deposits are mostly medium-to-fine grained sand and gravel. The alluvial deposits are underlain by igneous and metamorphic rocks of the San Gabriel Mountains.

The site lies within the Raymond Groundwater Basin. Depth to groundwater in the vicinity of the subject site ranges from 50 feet to 100 feet below ground surface (Division of Mines and Geology, 1998). Groundwater was not encountered at the site during a geotechnical investigation that drilled to a depth of 75 feet below ground surface. Groundwater flow is expected to be generally in a southern direction. TCE and chloroform were detected in a groundwater well approximately 1/4 west of the site in 1985. Carbon tetrachloride, hexavalent chromium, perchlorate, trichloroethylene and tetrachloroethylene were detected in well approximately one mile east of the site in 2000 and 2001.

Tectonically, the site is not on or adjacent to an earthquake fault considered active by the California Geological Survey (CGS). A review of the California Division of Mines and Geology 1997 edition of the publication "Fault-Rupture Hazard Zones in California" showed that the site is not within an Alquist-Priolo Special Study Zone. An Alquist-Priolo Special Study Zone map for the Pasadena quadrangle is not published by the California Geological Survey. The closest Special Study Zone to the subject site, the Raymond Fault Zone, is located approximately 3/4 miles south of the subject site. Additional faults are located approximately one mile west of the subject site. Due to the proximity of the subject site to the fault zone, strong ground shaking may occur at the subject site during future earthquake events on these faults. Structural engineers and engineering geologists should be consulted to ensure that any future structures at the subject site are built in a way that will minimize the risk to inhabitants from seismic shaking.

4.0 RECORDS REVIEW

4.1 Federal and State Environmental Records

A search of Federal and State of California environmental database records regarding the site and vicinity was supplied by Environmental Data Resources, Inc. (EDR) on March 7, 2007. CEC requested a one-mile radius to the database search. A copy of the full EDR report is appended to this report.

Two addresses that have been historically associated with the subject site are listed on EDR's proprietary Historical Cleaners database. An interview with one of the owners of the subject site that has been familiar with the site since the 1920s revealed that no dry cleaning activities were conducted at these locations. Information of the two facilities is presented below.

- Miller A A – 14 E. California – This facility was part of the subject site. In 1921 it was known as Domestic French Laundry, Joe's French Laundry in 1942 and Miller A A in 1947 and 1951. Mr. Ferdinand J. Soulanille, owner of portion of the site, was asked about this listing during a personal interview. Mr. Soulanille was born and raised at the subject site and his family owned and operated the French laundry since the 1920s. He reported that clothes were laundered at the site without the use of chemicals. No dry cleaning was ever conducted at the site.
- Harry Mooadian – 600 S. Fair Oaks Avenue – This facility was part of the subject site. In 1932 this facility operated as a clothes cleaner and presser. According to Mr. Soulanille, the only laundries at the subject site were hand laundries, not dry cleaners.

Based on the EDR database Federal and State ASTM searches, no properties within one mile of the site are on the following lists: National Priority List ("Superfund Sites"), Proposed National Priority List, Delisted National Priority List, Department of Defense Sites, Formerly Used Defense Sites, Consent Decree Sites, Record of Decision Sites, California Bond Expenditure Plan, Toxic Pits Cleanup Act Sites, Notify 65 Sites, Indian Reservations, or Areas of Concern. There are no sites within one-half mile of the subject site on the following lists: RCRA-TSD, Engineering Control Sites, Institutional Control

Sites, Uranium Mill Tailings Sites, Open Dump Inventory, Land Use Control Information System, Waste Management Unit Database, State Landfill Sites, Deed Restriction Sites, Voluntary Cleanup Properties, or Leaking Underground Storage Tank on Indian Land Information System. No properties within one-quarter mile of the subject site are listed on the following lists: Mines Master Index, School Property Evaluation Program, Aboveground Petroleum Storage Tank Facilities, Well Investigation Program, or Underground Storage Tanks on Indian Land List.

One site within one mile of the subject site is listed on the CORRACTS database. CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity. The site on this database is listed below.

1. Monitor Polishing and Plating – 390 S. Pasadena Avenue – Located approximately 1,600 feet northwest of the subject site. Facility or area was assigned a low corrective action priority in 1991. The facility is listed as conducting ship building and repair and electroplating, plating, polishing, anodizing and coloring.

Two sites within one mile of the subject site are listed on the Hist-Cal-Sites database. This database was formerly known as ASPIS. It contains both known and potential hazardous substances sites. The sites on this database are listed below.

1. Huntington Medical Plaza – Northwest corner of Fair Oaks/Bellefontaine – Located approximately 1,200 feet south of the subject site. The site is listed as having been remedied satisfactorily under DTSC oversight.
2. Digitran Co. – 855 S. Arroyo Parkway – Located approximately 1,500 feet south-southeast of the subject site. The site is listed as having been remedied satisfactorily under DTSC oversight. The site was a metal products manufacturer.

Two sites within one mile of the subject site are listed on the Response database. Response identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk. The sites on this database are listed below.

1. Huntington Medical Plaza – Northwest corner of Fair Oaks/Bellefontaine – Located approximately 1,200 feet south of the subject site. The site is listed as having been remedied satisfactorily under DTSC oversight.
2. Digitran Co. – 855 S. Arroyo Parkway – Located approximately 1,500 feet south-southeast of the subject site. The site is listed as having been remedied satisfactorily under DTSC oversight. The site was a metal products manufacturer.

Four sites within one mile of the subject site are listed on the Envirostor database. Envirostor identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites; State Response, including military facilities and State Superfund; Voluntary cleanup; and School sites. Envirostor provides similar information to the information that was available in Cal-Sites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites. A list of the sites on this database follows.

1. Raymond Avenue Property – 707 S. Raymond Avenue – Located approximately 630 feet south-southeast of the subject site. As of 2003 this site is still in the evaluation process.
2. Huntington Medical Plaza – Northwest corner of Fair Oaks/Bellefontaine – Located approximately 1,200 feet south of the subject site. The site is listed as having been remedied satisfactorily under DTSC oversight.
3. Digitran Co. – 855 S. Arroyo Parkway – Located approximately 1,500 feet south-southeast of the subject site. The site is listed as having been remedied satisfactorily under DTSC oversight.
4. Pasadena Desiderio Hall – 665 Westminster Drive – Located approximately one mile west-northwest of the subject site. A No Further Remedial Action letter was issued for this site in 2001.

One site within one mile of the subject site is listed on EDR's Manufactured Gas Plants database. The EDR proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination. The site on this database is listed below.

1. So Cal Gas/Pasadena – 815, 859 and 870 S. Raymond Avenue – Located approximately 1,200 feet south of the subject site. The site consists of 2.4 acres. The former gas plant property is presently occupied by several industrial and warehousing companies. The surrounding area is fully developed and occupied by commercial and industrial uses.

One site within one-half mile of the subject site is listed on the CERCLIS database. The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priority List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL. The site on this database is presented below.

1. Monitor Polishing and Plating – 390 S. Pasadena Avenue – Located approximately 1,600 feet northwest of the subject site. Site reassessment is ongoing at this site. The site or area was assigned a low corrective action priority in 1991. The site is listed as an electroplating facility.

One site within one-half mile of the subject site is listed on the CERCLA No Further Remedial Action Plan database. The sites on this database are considered archived. Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site. The site on this database is presented below.

1. Digitran Co. – 855 S. Arroyo Parkway – Located approximately 1,500 feet south-southeast of the subject site. The site case was archived in 1989.

One site within one-half mile of the subject site is listed on the US Brownfields database. The site on this database is listed below.

1. City of Pasadena, Inter-Modal – 750 S. Raymond Avenue / 766 S. Raymond Avenue – Located approximately 900 feet south-southeast of the subject site. An assessment was conducted at this site in 2001 and was funded through Superfund.

Four sites within one-half mile of the subject site are listed on the Leaking Underground Storage Tank database. A list of the sites follows.

1. Marco Auto Body – 1300 S. Fair Oaks – Located approximately 200 feet north of the subject site. This site is listed due to a leaking underground storage tank case in which only the surrounding soil was affected. The case for this incident was closed in August 1999.
2. Arco #0510 – 125 E. California Boulevard – Located approximately 400 feet east of the subject site. This site is listed due to a leaking underground storage tank case in which the groundwater was affected. The case for this incident was closed in 2004.

3. Huntington Memorial Hospital – 707 S. Raymond Avenue – Located approximately 600 feet south-southeast of the subject site. The status of the case is listed as "Leak being confirmed" as of 2001, but the summary of the case suggests that the case was closed. The summary reports that approximately 50 gallons of hydraulic fluid spilled from a fractured lift in 1989. The case is listed as a minor soil problem that was closed by the County in December 1995.
4. Champion Plaza – 753-755 S. Arroyo Parkway – This site is located approximately 1,000 feet southeast of the subject site. The specifics for this site were not reported. The case is listed as closed.

Three sites within one-half mile of the subject site are listed on the Cortese database. The Cortese database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with USTs having a reportable release and solid waste disposal facilities from which there is known migration. The sites on this database are listed below.

1. Marco Auto Body – 1300 S. Fair Oaks – Located approximately 200 feet north of the subject site. This site is listed due to a leaking underground storage tank case in which only the surrounding soil was affected. The case for this incident was closed in August 1999.
2. Arco #0510 – 125 E. California Boulevard – Located approximately 400 feet east of the subject site. This site is listed due to a leaking underground storage tank case in which the groundwater was affected. The case for this incident was closed in 2004.
3. Digitran – 855 Arroyo – Located approximately 1,300 feet south-southeast of the subject site. This site is listed for listings on the Envirostor database.

One site within one-half mile of the subject site is listed on the SWRCY database. This database is a listing of recycling facilities in California. The site on this database is listed below.

1. Nexcycle/Vons #2152 – 155 W. California Boulevard – This site is located approximately 800 feet west of the subject site. This facility is reported as never being operational.

Three sites within one-half mile of the subject site are listed on the SLIC database. A list of the sites on this database follows.

1. Fairoaks Renaissance Plaza – 641/645 Fairoaks – This site is located approximately 130 feet south of the subject site. This facility, which is now closed, is listed for a Volatile Organic Compound (VOC) issue.
2. Huntington Memorial Hospital – 707 S. Raymond Avenue – This site is located approximately 630 feet south-southeast of the subject site. The case for this site is listed as open for a VOC issue.
3. Champion Plaza – 753-755 Arroyo – This site is located approximately 1,000 feet southeast of the subject site. This site is listed for a total petroleum hydrocarbon (TPH) issue that has been closed.

One site within one-quarter mile of the subject site is listed on the Large Quantity Generators database. RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS). The database includes selective information on sites which generate, transport, store, treat and/r dispose of hazardous waste as defined by RCRA. Large quantity generators generate over 1,000 kilograms of hazardous waste, or over 1 kilogram of acutely hazardous waste per month. The site on this database is presented below.

1. Huntington Trust – 707 S. Raymond Avenue – This site is located approximately 600 feet south-southeast of the subject site. This facility produces organic solids with halogens. No violations have been reported for this facility.

Twenty six sites within one-quarter mile of the subject site are listed on the Small Quantity Generators database. RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS). The database includes selective information on sites which generate, transport, store, treat and/r dispose of hazardous waste as defined by RCRA. Small quantity generators generate between 100 kilograms and 1,000 kilograms of hazardous waste per month. A list of the sites on this database follows.

1. Dy Dee Diaper Service – 40 E. California. This site is directly east of the subject site. No violations are listed for this facility.
2. Huntington Medical Group Inc. – 55 E. California Boulevard – This facility is located more than 50 feet east of the subject site. No violations have been reported for this facility.
3. A N Tool and Die – 518 S. Fair Oaks – This site is located approximately 400 feet north of the subject site. No violations have been reported for this facility.
4. Huntington Memorial Hospital – 100 W. California Boulevard – This site is located approximately 600 feet west of the subject site. No violations have been reported for this facility.
5. A P Company – 115 W. California Boulevard – This site is located approximately 600 feet west of the subject site. No violations have been reported for this facility.
6. Bryans Cleaners Incorporated – 544 S. Arroyo Parkway – This site is located approximately 700 feet east-northeast of the subject site. No violations have been reported for this facility.
7. Chevron Station No 91410 – 160 E. California Boulevard – This site is located approximately 800 feet east of the subject site. No violations have been reported for this facility.
8. Plati German Car Service – 442 S. Raymond Street – This site is located approximately 900 feet north-northeast of the subject site. No violations have been reported for this facility.

9. Huntington Outpatient Imaging – 800 Fairmount Street – This site is located approximately 900 feet south-southwest of the subject site. No violations have been reported for this facility.
10. Rogerson Kratos – 403 S. Raymond Avenue – This site is located approximately 950 feet north-northeast of the subject site. No violations have been reported for this facility.
11. Crowell & Lyons Equipment Inc. – 495 A Arroyo Parkway – This site is located approximately 1,000 feet northeast of the subject site.
12. Converse Envirolab – 67 W. Bellevue Drive – This site is located approximately 1,000 feet north-northwest of the subject site. No violations have been reported for this facility.
13. Crown City Tire – 80 W. Bellevue Drive – This site is located approximately 1,000 feet north-northwest of the subject site. No violations have been reported for this facility.
14. Hychem Inc. – 394 South Raymond Avenue – This site is located approximately 1,100 feet north-northeast of the subject site. No violations have been reported for this facility.
15. The Home Van Vechten – 450 S. Arroyo Parkway – This site is located approximately 1,100 feet northeast of the subject site. No violations have been reported for this facility.
16. Brown and Caldwell Labs – 373 S. Fair Oaks Avenue – This site is located approximately 1,100 feet north of the subject site. No violations have been reported for this facility.
17. Stanyer & Edmondson – 400 S. Fair Oaks Avenue – This site is located approximately 1,150 feet north of the subject site. No violations have been reported for this facility.
18. Cal Swiss A Division Gorko Ind – 390 S. Fair Oaks Avenue – This site is located approximately 1,200 feet north of the subject site. No violations have been reported for this facility.
19. Huntington Magnetic Resonance – 10 Pico – This site is located approximately 75 feet south of the subject site. No violations have been reported for this facility.

20. Orthopaedic Institute Inc – 10 Congress Street 103 – This site is located approximately 300 feet south of the subject site. No violations have been reported for this facility.
21. Congress Associates Inc – 39 Congress Street Suite 201 – This site is located approximately 300 feet south of the subject site. No violations have been reported for this facility.
22. Radcliffe Engineering Corp – 681 S. Raymond Avenue – This site is located approximately 400 feet southeast of the subject site. No violations have been reported for this facility.
23. Huntington Extended Care – 716 S. Fair Oaks Avenue – This site is located approximately 550 feet south of the subject site. No violations have been reported for this facility.
24. Arroyo Cleaners – 633 S. Arroyo Parkway 4 – This site is located approximately 650 feet east of the subject site. No violations have been reported for this facility.
25. Farris and Sons Auto SVC – 621 S. Arroyo Parkway Unit B – This site is located approximately 650 feet east of the subject site. No violations have been reported for this facility.
26. Motorola Life Sciences – 757 S. Raymond Avenue – This site is located approximately 1,000 feet south-southeast of the subject site. No violations have been reported for this facility.

Four sites within one-quarter mile of the subject site are listed on the UST database. The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resources Conservation and Recovery Act (RCRA). A list of the sites follows.

1. Huntington Memorial Hospital – 100 W. California Boulevard – This site is located approximately 575 feet west of the subject site.
2. Huntington Memorial Hospital – 744 Fairmount Avenue – This site is located approximately 675 feet southwest of the subject site.
3. Chevron Station # 91410 – 160 E. California Boulevard – This site is located approximately 800 feet east of the subject site.

4. Crown City Tire – 80 W. Bellevue Drive – This site is located approximately 1,000 feet north-northwest of the subject site.

Ten sites within one-quarter mile of the subject site are listed on the CA FID UST database. The Facility Inventory Database contains active and inactive underground storage tank locations. A list of the sites on this database follows.

1. Huntington Memorial Hospital – 100 Congress Street – This site is located approximately 400 feet south-southwest. This site is listed as an active site.
2. Arco #0510 – 125 E. California Boulevard – This site is located approximately 450 feet east of the subject site. This site is listed as an active site.
3. Nathanson, Marc & Jane – 474 S. Raymond Avenue – This site is located approximately 700 feet north-northeast of the subject site. This site is listed as an active site.
4. Bryans Cleaners Incorporated – 544 South Arroyo Parkway – This site is located approximately 700 feet east-northeast of the subject site. This site is listed as an active site.
5. Chevron USA SS 1410 – 160 E. California Boulevard – This site is located approximately 800 feet east of the subject site. This site is listed as an active site.
6. Rush Pharmacy – 67 W. Bellevue Drive – This site is located approximately 1,000 feet north-northwest of the subject site. This site is listed as an active site.
7. Stanyer & Edmondson – 400 S. Fair Oaks Avenue – This site is located approximately 1,100 feet north of the subject site. This site is listed as an active site.
8. Arroyo Car Wash – 605 S. Arroyo Parkway – This site is located approximately 650 feet east of the subject site. This site is listed as an active site.
9. Mike Ward Mobil Service Station – 733 S. Arroyo Parkway – This site is located approximately 1,000 feet southeast of the subject site. This site is listed as an active site.
10. Golden West Industries – 750 Arroyo Avenue – This site is located approximately 1,000 feet southeast of the subject site. This site is listed as an active site.

Sixteen sites within one-quarter mile of the subject site are listed on the Historical Underground Storage Tank List. The sites on this database are presented below.

1. Public Storage – 588 S. Fair Oaks Avenue – This site is located approximately 75 feet north of the subject site. This site is listed for a gasoline UST that was installed in 1981. This site is not listed on the LUST list.
2. Jass Shell Service – 587 S. Fair Oaks Avenue – This site was located approximately 75 feet west of the subject site. This site is listed for five gasoline USTs. This site is currently being redeveloped as a medical center. This site is not listed on the LUST list.
3. Pasadena Moving Center – 562 S. Raymond Avenue – This site is located approximately 350 feet northeast of the subject site. The site is listed for a gasoline UST and a waste oil UST.
4. Bill Barry – 160 E. California – This site is located approximately 375 feet east of the subject site. This site is listed for three gasoline USTs and two waste oil USTs.
5. Huntington Memorial Hospital – 100 Congress Street – This site is located approximately 400 feet south-southwest of the subject site. This site is listed for four diesel USTs that were installed between 1948 and 1975.
6. Jurgensen's Grocery Company – 474 S. Raymond Avenue – This site is located approximately 700 feet north-northeast of the subject site. This site is listed for a gasoline UST that was installed in 1972.
7. Bryans Cleaners Incorporated – 544 S. Arroyo Parkway – This site is located approximately 700 feet east-northeast of the subject site. This site is listed for four gasoline USTs that were installed in 1939.
8. 91410 – 160 E. California Boulevard – This site is located approximately 800 feet east of the subject site. This site is listed for three gasoline USTs and one waste oil UST that were installed in 1971.
9. Rush Pharmacy – 67 W. Bellevue Drive – This site is located approximately 1,000 feet north-northwest of the subject site. The site is listed for one gasoline UST that was installed in 1979.

10. Stanyer & Edmondson – 400 S. Fair Oaks Avenue – This site is located approximately 1,100 feet north of the subject site. The site is listed for one gasoline UST that was installed in 1970.
11. Unocal Corp SS 379 – 730 S. Raymond Avenue – This site is located approximately 500 feet south-southeast of the subject site. The site is listed for one gasoline UST that was installed in 1974.
12. Arroyo California Car Wash – 605 S. Arroyo Parkway – This site is located approximately 650 feet east of the subject site. The site is listed for one diesel UST and three gasoline USTs.
13. Kenneth Fraser Company, Inc. – 707 S. Arroyo Parkway – This site is located approximately 900 feet southeast of the subject site. This site is listed for two gasoline USTs that were installed in 1977.
14. California Liquid Fertilizer Co. – 755 S. Raymond Avenue – This site is located approximately 1,000 feet south-southeast of the subject site. The site is listed for one gasoline UST, one diesel UST and one waste oil UST that were installed between 1971 and 1977.
15. Mike Ward #14-413 – 733 S. Arroyo Parkway – This site is located approximately 1,000 feet southeast of the subject site. The site is listed for three gasoline UST and one waste oil UST that were installed between 1963 and 1982.
16. Budget Car & Truck Rental – 750 S. Arroyo Parkway – This site is located approximately 1,100 feet southeast of the subject site. The site is listed for one gasoline UST.

Twenty two sites within one-quarter mile of the subject site are listed on the SWEEPS underground storage tank database. The Statewide Environmental Evaluation and Planning System was updated and maintained by a company contracted by the SWRCB in the early 1980's. The listing is no longer updated or maintained. A list of the sites follows.

1. Huntington Memorial Hospital – 100 Congress Street – This site is located approximately 400 feet south-southwest of the subject site. This site is listed for five USTs.

2. Arco #0510 – 125 E. California Boulevard – This site is located approximately 450 feet east of the subject site. The site is listed for nine USTs.
3. U-Haul of Los Angeles – 522 S. Raymond Avenue – This site is located approximately 500 feet north-northeast of the subject site. This site is listed for at least one UST.
4. Nathanson, Marc & Jane – 474 S. Raymond Avenue – This site is located approximately 700 feet north-northeast of the subject site. The site is listed for one UST.
5. Bryans Cleaners Incorporated – 544 S. Arroyo Parkway – This site is located approximately 700 feet east-northeast of the subject site. The site is listed for at least one UST.
6. Milum Textile – 443 S. Raymond Avenue – This site is located approximately 775 feet north-northeast of the subject site. This site is listed for three USTs.
7. Chevron USA SS 1410 – 160 E. California Boulevard – This site is located approximately 800 feet east of the subject site. This site is listed for four USTs.
8. Huntington Memorial Hospital – 800 S. Fairmount Avenue – This site is located approximately 900 feet south-southwest of the subject site. This site is listed for at least one UST.
9. Rush Pharmacy – 67 W. Bellevue Drive – This site is located approximately 1,000 feet north-northwest of the subject site. This site is listed for at least one UST.
10. Discount Tire Center – 455 S. Arroyo Parkway – This site is located approximately 1,000 feet northeast of the subject site. This site is listed for at least one UST.
11. Crown City Tire – 80 W. Bellevue Drive – This site is located approximately 1,000 feet north-northwest of the subject site. This site is listed for one UST.
12. Stanyer & Edmondson – 400 S. Fair Oaks Avenue – This site is located approximately 1,100 feet north of the subject site. The site is listed for at least two USTs.
13. Tyler and Cobleigh – 432 S. Arroyo Parkway – This site is located approximately 1,100 feet northeast of the subject site. The site is listed for at least one UST.

14. Crown City Rug & Upholstery Cleaners – 665 S. Raymond Avenue – This site is located approximately 300 feet southeast of the subject site. This site is listed for at least one UST.
15. Huntington Medical Research Inc. – 686 S. Fair Oaks Avenue – This site is located approximately 300 feet south of the subject site. The site is listed for at least one UST.
16. Unocal Corp SS 379 – 730 S. Raymond Avenue – This site is located approximately 500 feet south-southeast of the subject site. The site is listed for one UST.
17. Arroyo Car Wash – 605 S. Arroyo Parkway – This site is located approximately 650 feet east of the subject site. This site is listed for four USTs.
18. Kenneth Frazer Co. – 707 S. Arroyo Parkway – This site is located approximately 900 feet southeast of the subject site. The site is listed for at least one UST.
19. Mike Ward Mobil Service Station – 733 S. Arroyo Parkway – This site is located approximately 1,000 feet southeast of the subject site. The site is listed for three USTs.
20. David A Morelli – 755 S. Arroyo Parkway – This site is located approximately 1,100 feet southeast of the subject site. The site is listed for at least one UST.
21. Budget Rent A Car – 750 Arroyo Parkway – This site is located approximately 1,100 feet southeast of the subject site. The site is listed for one UST.
22. Bectin-Dickson – 870 S. Raymond Avenue – This site is located approximately 1,200 feet south-southeast of the subject site. The site is listed for at least one UST.

Seven sites within one-quarter mile of the subject site are listed on the Dry Cleaners database. This database is a list of dry cleaner related facilities that have EPA ID numbers. These are facilities with certain LIC codes: power laundries, family and commercial; garment pressing and cleaners' agents; linen supply; coin-operated laundries and cleaning; dry cleaning plants except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services. A list of the sites presented below.

1. Fashion Cleaners – 1 W. California Boulevard – This site is located approximately 75 feet northwest of the subject site. This site is listed as an active dry cleaning facility.
2. Dy Dee Diaper Service – 40 E. California – This site is located directly east of the subject site. This facility is listed as a linen laundry service. It does not appear to dry clean garments.
3. Oaks Cleaners – 131 W. California – This site is located approximately 700 feet west of the subject site. This site is listed as an active dry cleaning facility.
4. Bryans Cleaners Incorporated – 544 S. Arroyo Parkway – This site is located approximately 700 feet east-northeast of the subject site. This site is listed as an active dry cleaning facility.
5. The Home Van Vechten – 450 S. Arroyo Parkway – This site is located approximately 1,100 feet northeast of the subject site. This site is listed as an active dry cleaning facility.
6. Crown City Rug & Upholstery Cleaners – 665 S. Raymond Avenue – This site is located approximately 300 feet southeast of the subject site. This facility operated between March 1985 and June 1998.
7. Express Cleaners – 700 S. Fair Oaks – This site is located approximately 450 feet south of the subject site. This dry cleaner operated between November 1989 and June 1998.

Nineteen sites within one-quarter mile of the subject site are listed on the EDR Historical Auto Stations database. EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. A list of the sites follows.

1. Shell Service – 597 S. Fair Oaks Avenue – This site is located approximately 75 feet west of the subject site. This facility operated as a gasoline and oil service station in 1932.
2. Fasheh Shell Service – 587 S. Fair Oaks Avenue – This site is located approximately 75 feet northwest of the subject site. This facility operated as a gasoline station between 1951 and 1976.
3. Standard Stations Inc. – 66 E. California Boulevard – This site is located approximately 100 feet east of the subject site. This facility operated as a gasoline station in 1965.
4. Lajunie Eug – 541 S. Fair Oaks Avenue – This site is located approximately 150 feet north of the subject site. This facility operated as an automobile repair shop between 1932 and 1942.
5. Miller Seth Company – 83 E. California Avenue – This site is located approximately 150 feet east of the subject site. This facility operated as a gasoline station and repair shop between 1932 and 1971.
6. Cook J C – 84 E. California – This site is located approximately 150 feet east of the subject site. This facility operated as an automobile service station in 1921.
7. Stauch Motors – 60 W. California Boulevard – This site is located approximately 400 feet west of the subject site. This facility operated as an automobile repair station between 1956 and 1971.
8. Patterson Arco Service – 125 E. California Boulevard – This site is located approximately 450 feet east of the subject site. This facility operated as a gasoline station between 1961 and 1976.
9. Patterson Arco Service – 126 E. California Boulevard – This site is located approximately 500 feet east of the subject site. This facility operated as a gasoline station in 1971.
10. Williams Chick Richfield Service – 128 E. California Boulevard – This site is located approximately 500 feet east of the subject site. This facility operated as a gasoline station in 1956.

11. McGivney Mobil Service – 132 E. California Boulevard – This site is located approximately 550 feet east of the subject site. This facility operated as a gasoline and oil service station between 1942 and 1956.
12. Barry's Bill Chevron Service – 160 E. California Boulevard – This site is located approximately 800 feet east of the subject site. This facility operated as a gasoline station between 1961 and 1976.
13. Pauls Garage – 411 S. Fair Oaks Avenue – This site is located approximately 900 feet north of the subject site. This facility operated as a gasoline and oil service station between 1932 and 1971.
14. Elvans W E – 117 E. Bellevue Drive – This facility is located approximately 1,000 feet north-northeast of the subject site. This facility operated as an automobile repair station and service station in 1927.
15. Smith R W – 708 S. Fair Oaks Avenue – This site is located approximately 500 feet south of the subject site. This facility operated as an automobile repair and service station in 1927.
16. McMillen & Zieger – 710 S. Fair Oaks Avenue – This site is located approximately 500 feet south of the subject site. This facility operated as an automobile repair station in 1921.
17. Fremont & Purdon – 758 S. Fair Oaks Avenue – This site is located approximately 800 feet south of the subject site. This facility operated as an automobile repair station in 1932.
18. MOXX R A S & Lutzoff Inc – 765 S. Fair Oaks Drive – This site is located approximately 900 feet south of the subject site. This facility operated as an automobile repair station in 1951.
19. Wooley's Texaco Service Gauge Manufacturers Glass – 777 S. Arroyo Parkway – This site is located approximately 1,100 feet southeast of the subject site. This facility operated as a gasoline station in 1961.

Twenty two sites within one-quarter mile of the subject site are listed on the EDR Historical Cleaners database. EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to

EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, Laundromat, cleaning/laundry, was & dry etc. A list of the sites follows.

1. Wee Folks Laundry – 38 E. California – This site is located east of the site. The laundry operated in 1947. A diaper service operates at this facility now.
2. Trypucko Sportswear – 11 E. California Boulevard – This site is located approximately 75 feet north of the subject site. In 1942 this facility was operated by Mrs. E.C. Reed. The business operated as a clothes presser and cleaner. In 1971 the facility was named Trypucko Sportswear and operated as a cleaner and dyer.
3. Foothill Laundry – 40 E. California Boulevard – This site is located directly east of the subject site. This site operated as a laundry under the following names: Dy Dee Service (1961), Tiny Tots Inc. (1961 and 1965), Foothill Laundry (1971).
4. Peerless Dye Works – 572 S. Fair Oaks Avenue – This site is located approximately 75 feet north of the subject site. This site operated as Peerless Dye Works, a clothes cleaner and presser in 1921.
5. Bohanon F P & Son – 25 W. California Boulevard – This site is located approximately 150 feet west of the subject site. This site operated as a carpet cleaner and layer in 1932.
6. Oneil J A – 522 S. Fair Oaks Avenue – This site is located approximately 400 feet north of the subject site. This site operated as a laundry in 1947.
7. Childs & Oneil – 518 S. Fair Oaks Avenue – This site is located approximately 400 feet north of the subject site. This site operated as a laundry in 1942.
8. Pasadena Dry Cleaners – 512 S. Fair Oaks Avenue – This site is located approximately 500 feet north of the subject site. This facility operated as Peerless Cleaners and Dyers Inc in 1932 and 1937 and as Pasadena Dry Cleaners in 1951.
9. Yuen Woh – 488 S. Fair Oaks Avenue – This site is located approximately 600 feet north of the subject site. This facility operated as an oriental laundry in 1921.

10. Do It Yourself Laundry – 435 S. Fair Oaks Avenue – This site is located approximately 800 feet north of the subject site. This facility operated as a self service laundry form 1961 to 1971.
11. Weber's Cleaners and Dryers – 395 S. Fair Oaks Avenue – This site is located approximately 950 feet north of the subject site. This facility operated as Fevergeon A F, a clothes cleaner and presser, in 1932 and as Weber's Cleaners and Dyers in 1942.
12. Mrs. A M Schmuck – 135 W. Bellevue Drive – This site is located approximately 1,300 feet northwest of the subject site. This site operated as a laundry in 1921.
13. Nelson Roberts – 635 S. Fair Oaks Avenue – 635 S. Fair Oaks Avenue – This site is located approximately 75 feet south of the subject site. This facility operated as a carpet cleaning and laying company in 1937.
14. Cleaner Carpets Inc. – 664 S. Fair Oaks Avenue – This site is located approximately 200 feet south of the subject site. This facility operated as a carpet and rug cleaner in 1971.
15. Pioneer Rag Co. – 670 S. Fair Oaks Avenue – This site is located approximately 250 feet south of the subject site. This facility operated as a carpet cleaner between 1932 and 1961.
16. Ralph E. Pray – 16 Congress Street – This site is located approximately 300 feet south of the subject site. The facility operated as a cleaner and dyer in 1971.
17. Pasadena Dispensary – 38 Congress Street – This site is located approximately 300 feet south of the subject site. This facility operated as a cleaner and dyer in 1971.
18. Mrs. M Williams – 737 S. Fair Oaks Avenue – This site is located approximately 700 feet south of the subject site. This facility operated as a laundry between 1932 and 1951.
19. Troy Laundry Co. – 761 S. Fair Oaks Avenue – This site is located approximately 850 feet south of the subject site. This facility operated as a laundry and carpet cleaner between 1921 and 1942.
20. Troy Laundry Co. – 765 S. Fair Oaks Avenue – This site is located approximately 900 feet south of the subject site. This facility operated as a laundry in 1947.

21. Elite Cleaners & Dyers Inc. – 791 S. Fair Oaks Avenue – This site is located approximately 1,000 feet south of the subject site. This facility operated as a garment, curtain and draperies cleaner in 1951.
22. Elite Cleaners & Dyers – 797 S. Fair Oaks Avenue – This facility is located approximately 1,050 feet south of the subject site. The facility operated as a cleaner and dyer between 1921 and 1976. Dry cleaning operations began in 1932.

4.2 Local Agency Records

On March 21, 2007 CEC submitted a request to review records to the Pasadena Fire Department for the address that have, or may have, been used at the subject site. The addresses listed in the request include: 8, 12, 14, 26 and 28 E. California Boulevard and 586, 590, 592, 594, 596, 598, 600, 608, 612, 614 and 624 S. Fair Oaks Avenue. The Fire Department responded via mail on April 16, 2007 that no records exist for any of the addresses except 28 E. California. The Fire Department provided copies of the records for 28 E. California. The findings of a review of these records are presented below. The letter provided with the records from the Fire Department states that we are not allowed to make these records available for any third party review.

7/7/05 – Unified Program Inspection of M&G Auto Body – 28 E. California – In compliance with all applicable regulations.

7/7/05 – Unified Program Consolidated Form – M&G Auto Body – 28 E. California – This facility does not operate USTs, contain more than 55 gallons of liquid, 500 pounds of solids or 200 cubic feet of compressed gases that are considered extremely hazardous substances. The facility does generate hazardous waste. A spray booth is present in the northeastern corner of the building. Flammable materials are stored in the southwestern portion of the site. The following materials are used/stored at the site.

- Acrylic paint – Deltron 2000 Basecoat – Maximum daily amount of 2 gallons. This material is stored in cans.
- Acrylic paint – 2.1 VOC 4+1 Urethane Clear – This material is stored in 1 gallon cans. The hazardous components of this material include; aromatic naphtha, xylenes and ethylbenzenes.
- Acrylic paint – Speed Clear 2.1 – This material is stored in 1 quart cans. The hazardous components of this material include; xylenes, ehtylbenzene and benzotriazole absorbent.

- Acrylic paint – Deltron Basecoat – This material is stored in 1 gallon cans. The hazardous components of this material include; N-butylacetate, titanium dioxide and isopropyl alcohol.
- Solvent – reducer – Maximum daily amount of 1.5 pints. This material is stored in cans. The hazardous components of this material include; 1 Methylcylohexane, Vm & P Naphtha and N-Heptane.

6/21/04 – Unified Program Inspection of M&G Auto Body at 28 E. California – The following violations were noted.

- Business plan is not current
- Emergency contact information not current
- Safety equipment not adequate for hazard
- Hazardous materials training records not available
- Emergency procedure not adequate for the hazard
- Site map not adequate or accurate
- Hazardous materials inventory not current
- All hazardous materials not reported on inventory
- Reported inventory quantities not accurate
- Material safety data sheets not available
- Gas cylinders not secured
- Remove ?? mat to spray booth – 3 foot clearance

4/1/96 – Hazardous Materials Permit 960301 for M&G Auto Body at 28 E. California – The only hazardous materials listed with the permit are PCL 905 Primer and PCL 883 Water Base Primer. These materials contain the following hazardous materials; styrene, acetone, calcium carbonate, ammonium hydroxide, titanium dioxide and 2-butoxyethanol.

7/13/95 – Hazardous Materials Permit 03995102 for M&G Auto Body at 28 E. California – The following hazardous materials are listed as part of their inventory.

- DTR 601 Rediset (PPG) – toluene, 2-butoxy ethyl acetate, acetone, mineral spirit VM & P Naphta, pigments – DAR, xylene, methyl ethyl acetone, 2,2,4-TR methyl-1,3 pentanedix, aromatic hydrocarbons, mineral spirits, film formats, resins, poditin
- G23 Arimale – magnesium silicate, titanium dioxide, aluminum silicate, barium sulfate, toluene, isopropyl acetate, N-butylacetaqte, isopropyl alcohol, methyl ethyl acetone, ethyl alcohol, xylene, methyl isobutyl ketone, film formers resins and APDIT
- Wax – grease ?? – xylene and VMOP Naphtha
- Bondo – styrene
- Film agent Ox 269 – polymeric issocyanate, isophorone diisocyanate, toluene, 2 butyanole, organic tin compounds
- DXR 80-7935 – polymeric issocyanate, proplylene glycol methyl ether acinie, hexamethylene D socyanate

- Acrylic Clear – toluene, 2-butanone, oxo methyl acetate, ocrylic??, xylene
- PEL Thinner – toluene, 2-propa???, aliphatic aydrolaibon, sioproply alcohol anhydrous, propylene glycol methyl ether

1/19/94 – Hazardous Materials Inventory – The following hazardous materials are listed in the inventory.

- DTR 601 Rediset (PPG) – toluene, 2-butoxy ethyl acetate, acetone, mineral spirit VM & P Naphta, pigments – DAR, xylene, methyl ethyl acetone, 2,2,4-TR methyl-1,3 pentanedix, aromatic hydrocarbons, mineral spirits, film formats, resins, poditin
- G23 Arimale – magnesium silicate, titanium dioxide, aluminum silicate, barium sulfate, toluene, isopropyl acetate, N-butylacetaqte, isopropyl alcohol, methyl ethyl acetone, ethyl alcohol, xylene, methyl isobutyl ketone, film formers resins and APDIT
- Wax – grease ?? – xylene and VMOP Naphtha
- Bondo – styrene
- Film agent Ox 269 – polymeric issocyanate, isophorone diisocyanate, toluene, 2 butyanole, organic tin compounds
- DXR 80-7935 – polymeric issocyanate, proplylene glycol methyl ether acinie, hexamethylene D socyanate
- Acrylic Clear – toluene, 2-butanone, oxo methyl acetate, ocrylic??, xylene
- PEL Thinner – toluene, 2-propa???, aliphatic aydrolaibon, sioproply alcohol anhydrous, propylene glycol methyl ether

1/12/93 – Hazardous Materials Inventory – The following hazardous materials are listed in the inventory.

- DTR 601 Rediset (PPG) – toluene, 2-butoxy ethyl acetate, acetone, mineral spirit VM & P Naphta, pigments – DAR, xylene, methyl ethyl acetone, 2,2,4-TR methyl-1,3 pentanedix, aromatic hydrocarbons, mineral spirits, film formats, resins, poditin
- G23 Arimale – magnesium silicate, titanium dioxide, aluminum silicate, barium sulfate, toluene, isopropyl acetate, N-butylacetaqte, isopropyl alcohol, methyl ethyl acetone, ethyl alcohol, xylene, methyl isobutyl ketone, film formers resins and APDIT
- Wax – grease ?? – xylene and VMOP Naphtha
- Bondo – styrene
- Film agent Ox 269 – polymeric issocyanate, isophorone diisocyanate, toluene, 2 butyanole, organic tin compounds
- DXR 80-7935 – polymeric issocyanate, proplylene glycol methyl ether acinie, hexamethylene D socyanate
- Acrylic Clear – toluene, 2-butanone, oxo methyl acetate, ocrylic??, xylene
- PEL Thinner – toluene, 2-propa???, aliphatic aydrolaibon, sioproply alcohol anhydrous, propylene glycol methyl ether

A review of building records was conducted at the City of Pasadena's Permit Center on April 25, 2007. CEC personnel were not able to find and review building records for any of the E. California addresses. The employee at the help desk replied that no records exist for any of those addresses. The findings of the records review for the available addresses on S. Fair Oaks Avenue are presented below.

590 S. Fair Oaks Avenue

- 5/25/22 – Electrical wiring permit issued to Sam Seelig
- Undated application to alter, repair or demo issued to Sam Seelig – no information.
- Undated permit for building alteration for the re-subdivision of the northern 40 feet of the lot for office spaces.
- 9/1/22 – Electrical wiring permit for ceiling fans issued to T. Brewer
- Undated permit that states that the building was completed on 1/14/24.
- 5/2/27 – Electrical wiring permit for a coffee grinder issued to Safeway Store #87.
- 8/22/29 – Electrical wiring permit for an ice cream machine issued to Safeway.
- 1/28/30 – Plumbing permit to replace sinks. Owner is listed as Safeway Stores, Inc.
- 8/30/30 – Plumbing permit issued to Safeway Stores, Inc.
- 7/27/32 – Permit issued to plaster the interior of the building issued to Mr. Brewer.
- 12/8/32 – Electrical permit for the alteration of conduits issued to Mr. Brewer.
- 2/27/33 – Electrical permit for power issued to Mr. Brewer.
- 3/2/33 – Electrical wiring permit issued for connections for store equipment issued to Mr. Brewer.
- 10/30/33 – Electrical wiring permit issued for an ice cream machine issued to Mr. Brewer.
- 12/31/37 – Electrical wiring permit issued for lights to C. Sorensen & Son

- 5/12/52 – Plumbing permit for 2 lavatories, 2 water closets, a water heater and a gas outlet.
- 10/31/52 – Furnace permit
- 2/21/58 – Sign permit issued to Pacific Outdoors
- 4/26/63 – Building permit for aluminum awnings. The owner is listed as Industrial Office Supply.
- 10/12/67 – Building permit to reroof building. The building is listed as a 2 story office building. The owner is listed as Industrial Office Supply.
- 1/1/79 – Plumbing permit to repair water piping. The owner is listed as Oxy Med Inc.
- 11/5/81 – Sign permit issued to Grandview Palace.
- 11/23/88 – Repair of building due to auto damage – Grandview Palace.

592 S. Fair Oaks

- 4/16/23 – Building completed
- 5/6/35 – Sign permit
- 3/24/43 – Electrical wiring permit issued to Solar Candy Co.
- 6/5/46 – Permit issued to S.S. Perry Café
- 8/11/49 – Permit issued to Perry's Steak House
- 3/20/52 – Electrical permit for lights
- 1953 – Electrical permit for dinning room issued to Monty's
- 2/14/66 – Permit to reroof issued to Louice Monty.
- 1972 – HVAC permit for furnace connection issued to Monty's.
- Undated permit to repair fire damage issued to Monty's.
- Undated Historic building permit –archived permit files for this address.
- 12/15/88 – Reroofing permit
- 6/13/94 – Seismic retrofit permit
- 6/14/94 – temporary tent permit
- 10/24/96 – permit for alcohol sales and variance for tandem parking
- 10/24/96 – permit for patio improvements

- 12/26/96 – conditional monitoring for alcohol sales
- 7/6/99 – code compliance inspection for restaurant
- 5/31/2000 – code compliance inspection for sale of food and beverage
- 5/16/2001 – temporary tent permit
- 5/18/2001 – temporary tent permit
- 11/5/2003 – Filming permit
- 1/30/2004 – code compliance inspection
- 5/3/2006 – Filming permit
- 9/13/2006 – Complaint for illegal banner sign
- 10/25/2006 – Temporary banner permit

596 S. Fair Oaks Avenue

- 4/17/35 – Electrical wiring permit issued to Quality Cigar Shop

598 S. Fair Oaks Avenue

- 1/31/24 – Electrical wiring permit issued to J.O. Connor.

600 S. Fair Oaks Avenue

- 5/24/30 – Permit issued to Mr. Haig.
- 12/31/42 – Electrical Wiring permit issued to Excell Battery Co.

604 S. Fair Oaks Avenue

- Undated permit issued to Solar Candy Co.

610 S. Fair Oaks Avenue

- 4/18/38 – Electrical permit issued to Foster & Kleiser Co.
- 1/23/39 – Building permit for a pasta panel issued to Foster K. Kleuser.

612 S. Fair Oaks Avenue

- 9/8/25 – Electrical permit for a threading machine issued to L. Steinberg.

- 12/33 – Plumbing permit issued for a floor drain, a sewer and gas outlet issued to L. Steinberg.
- 1937 – Permit for a storage room issued to Jay Kaplan
- 1943 – Electrical permit for a bottle washing room issued to L. Steinberg.
- 6/54 – Building permit issued to Jay Kaplan

624 S. Fair Oaks Avenue

- 4/15/28 – Inspection record for the erection of a vegetable storage area issued to Green Bros. Inc.
- 6/4/75 – Building permit issued to Monty's to demolish a dwelling.

4.3 Environmental Lien Search

On March 22, 2007 EDR provided an Environmental Lien Search report for the subject site. No environmental liens were reported for the subject site. Further, no activity or use limitations were reported for the site.

The legal description of the subject site was presented as:

Parcel 5720-001-001 – G & E Properties – No liens and no Activity and Use Limitations
"Lot 1 of George W. Stimson's Resubdivision of Lots 1 and 2 in Block "A" of the Central Tract, as per Map recorded in Book 70, Page 47 of Miscellaneous Records, In the Office of the County Recorder of Los Angeles County, California. Except the South 112.5 feet thereof."

Parcel 5720-001-002 – Ferdinand J. Soulanille and Barbara B. Soulanille, Trustees of Trust dated February 21, 1985 – No liens and no Activity and Use Limitations
"Real property commonly known as 592 to 608 South Fair Oaks, Pasadena, California: The south one hundred twelve and five tenths foot of Lot one, of Geo. W. Stimson's Resubdivision of Lots 1 and 2, in Block "A" of the Central Tract, in the City of Pasadena,

County of Los Angeles, State of California, as per map recorded in Book 70, Page 47 of Miscellaneous Records of said County."

Parcel 5720-001-003 – Ferdinand J. Soulanille and Barbara B. Soulanille, Trustees of Trust dated February 21, 1985 – No liens and no Activity and Use Limitations
"Commonly known as 12 E. California Boulevard, Pasadena, California: Lot two of George W. Stimson's resubdivision of Lots one and two in Block "A" of the Central Tract, in the City of Pasadena, County of Los Angeles, State of California, as per map recorded in Book 70, Page 47, Miscellaneous Records of said County."

Parcel 5720-001-005 – Monty's Limited Partnership – No liens and no Activity and Use Limitations
"Lots 3 and 4 Block "A" of Central Tract, in the City of Pasadena, as per map recorded in book 6, pages 121 of Miscellaneous Records, In the office of the county recorder of said county. Except any part thereof included in Fair Oaks Avenue as widened."

Parcel 5720-001-004 – G & E Properties – No liens and no Activity and Use Limitations
"Lot 3 of George W. Stimson's Resubdivision of Lots 1 and 2 in Block "A" of the Central Tract, as per Map recorded in Book 70, Page 47 of Miscellaneous Records, in the Office of the County Recorder of Los Angeles County, California."

4.4 Historical Aerial Photographs

Readily available aerial photographs covering the site and vicinity were reviewed by CEC to assess historical land usage. Aerial photographs dating from 1928 to 2002 in the EDR Collection were reviewed. The results of this review showed that the site has been developed since the late 1920s. No evidence of oil fields in the area is apparent from the aerial photographs, though large tanks that have been described as gas tanks were present approximately 2,000 feet to the south. The following observations were made in the aerial photographs.

2002

Rectangular buildings are present near the northwest corner of the site. A smaller square building is present in the central portion of the eastern boundary of the site. The areas around the buildings are parking lots. The properties in all directions are developed.

1994 and 1989

The subject site is the same as the 2002 photograph. The site directly south is undeveloped and vacant.

1976

The subject site is the same as in the 1989 photograph with some small structures (sheds) near the southwestern corner of the site. The surrounding sites are all developed.

1965

The buildings currently at the northwestern corner are present along with a building that overlaps onto the southern portion of the property near the southeastern corner. Parking lots surround the buildings. The surrounding area is developed.

1956

Almost the entire site is developed with buildings. The buildings currently at the northwestern corner are present along with two other buildings that equal the size of the northwestern buildings in the northern 2/3 of the site. Several other smaller buildings are also present. Smaller structures (sheds) are present in the southern 1/3 of the site. A junk yard area is present in the southeastern corner of the site. The property directly south appears to be residential in nature. Five large tanks (>100 feet in diameter) are present approximately 2,000 feet south of the site.

1949

The site is the same as the 1956 site with additional smaller structures in southern portion of the property.

1938

The subject site is as it appears in 1949. The sites surrounding the subject site appear to be residential.

1928

A large building is present at the northwestern corner of the site. Smaller buildings are also present throughout the site. The surrounding areas appear to be residential.

4.5 Historical Maps

CEC requested historical maps, including Sanborn fire insurance maps, covering the site from EDR, Inc. to determine if any additional areas of potential environmental concern were noted on these maps. Sanborn maps for the site were provided for the years between 1888 and 1961. The findings from the review of these maps are presented below.

1888

The northern 1/3 of the site is developed as W.R. Baker's Wood Yard and Metz Bros. Sausage Factory. The sausage factory is located near the northwestern corner. A tent is present in the northeastern corner of the site. A water tank with trestle is present near the sausage factory. Fairman Elwell & Co. Wood Mantles Scroll Sawing and Turning Factory is present in the southern portion of the northern 1/3 of the site. The remainder of the property is undeveloped.

1890, 1894

The entire site is undeveloped. The properties to the north, south and east are undeveloped.

1903

Three residential structures and two garages (sheds) are present in the northern 2/3 of the site. The southern 1/3 is undeveloped. The property to the south is undeveloped. Residential properties are present to the north and east.

1910

Three residential properties and a store are present in the northern half of the property. A factory for the manufacturing of hollow concrete blocks is present near the center of the southern half of the property.

1931

The following uses were reported at the subject site in this map.

S. Fair Oaks Avenue

- 590 – Store
- 592 – Restaurant
- 594 – Store
- 596 – Store
- 598 – Bakery
- 600 – Store
- 608 – Store
- 612-614 – Junk yard with three buildings

California Boulevard

- 12 – Store
- 12 ½ - Residential
- 14 – Hand laundry
- 14 ½ - Laundry
- 26 – Store

Stores are present to the east. Residential uses are present to the south and west. Junk yard is present to the southwest. A gasoline station is present to the west of the northwestern corner.

1950

S. Fair Oaks Avenue

- 590 – Store

- 592 – Restaurant
- 596 – 608 – Store
- 612 – Plumbing and supply in storage yard. A building is present near the central portion of the southern end of the property.

E. California Boulevard

- 12 – Store
- 12 ½ - Residence
- 14 and 14 ½ - Hand laundry
- 26 – Store and additional furniture store to the south.

A gasoline station is present to the west of the northwestern corner of the site. Residential properties are present to the south. Stores are present to the east of the site.

1961

S. Fair Oaks Avenue

- 590 – Furniture store
- 592 – 608 – Restaurant
- 612 – Western half of this lot is a parking lot and the eastern half is a plumber's supply storage yard with a small workshop.

E. California Boulevard

- 12 – Parking lot
- 26 – A store along E. California and laundry and equipment storage building to the south.

A laundry and a machine shop are present to the east of the property. A rattan workshop and residence is present to the south. A gasoline station and stores are present to the west of the site.

EDR also provided historical topographic maps of the Pasadena quadrangle from 1901 to 1994. The following observations were made from the topographic map review.

1994 and 1988

The subject site is depicted, by color, as developed, but no structures are depicted. All of the surrounding sites are developed. Parks, schools and hospitals are depicted in all directions. No oil wells or water wells are depicted within one mile of the site. A railroad line is present approximately 400 feet east of the site.

1972 and 1966

The subject site and surrounding areas are depicted as they were in the 1988 map. An additional railroad line is present approximately 400 feet west of the site.

1953

The subject site and surrounding areas are depicted as they were in the 1966 map. Large tanks (>100 feet in diameter), labeled gas tanks, are located approximately 2,000 feet south of the site.

1941

The subject site is developed. A relatively large L-shaped building is present at the northwestern corner of the property. Two other small square buildings are also present onsite. Large gas tanks are located approximately 2,000 feet south of the site.

1915 and 1913

The subject site is depicted as developed but no buildings are depicted onsite. The gas tanks present in later maps are not depicted. The railroad lines to the west and east of the site are present on these maps.

1901

The scale of this map is too large to determine what is going on at the site. The area around the site is developed with north-south and east-west roads.

4.6 City Directory

EDR provided a city directory abstract for the subject site and the properties surrounding the subject site. The following businesses have been associated with the subject site since the 1920s.

590 S. Fair Oaks Avenue

- 1927 – Bookeide Market Co. Meats
- 1927 – Safeway Stores
- 1932 – Barger J.P. Meats
- 1932 – Safeway Stores, Inc.
- 1937 – Frederick P.G. Meats
- 1937 – Ihatza H.A. Grocery
- 1947 – Hoon W.F. Floor Coverings
- 1947 – Pellerin Raoul Awnings
- 1950, 1951 – Pasa Awning co.
- 1956 – 1966 – Industrial Office Supply Co.
- 1971 – Vacant
- 1975 – Junior Achievement
- 1976, 1980 – Oxymed, Inc. – Respiratory Equipment Service
- 1985 - 2006 – Grandview Palace, Inc.

592 S. Fair Oaks Avenue

- 1927 – Itaab W.H. Restaurant
- 1932 – Koliapoulus John Restaurant
- 1937 – IWTCE H.C. Restaurant
- 1947 – Pierre Perry Restaurant
- 1950 – 2006 – Monty's Perry Steakhouse
- 1995 – 1999 – J.L. Valet

594 S. Fair Oaks Avenue

- 1927, 1932 – Shimizu S. Billiards

- 1937 – Vacant

596 S. Fair Oaks Avenue

- 1927 – Ti Mehagian I laig Shoe Repair
- 1932 – Vacant
- 1937, 1947 – Barna Steph Liquors
- 1950 – Sladics Andrew
- 1951 – Monty's Liquor Store
- 1956 – Monty's Steakhouse - office

598 S. Fair Oaks Avenue

- 1927 – Golden State Bakery
- 1932 – Proulx L.J. Baker
- 1937, 1951 – Vacant

600 S. Fair Oaks Avenue

- 1927, 1932 – Evy B B Do CNR
- 1932 – Haig Mahgean Shoe Repair
- 1937 – Vacant
- 1947 – Dabermac Co. MFRS Agts
- 1947 – Servc Soft Soft Water Serv
- 1947 – Soft Water Co. of Pasadena
- 1947 – S West Mop Co. Mnf
- 1951 – Vacant

608 S. Fair Oaks Avenue

- 1927 – Morgenstein Morris Barber
- 1932 – Sager Krantz Barber
- 1937 – Vacant
- 1947 – General Tire & Rubber Co. Plumbing Goods Division

- 1950, 1951 – Ludwig Bros. Engineers
- 1956, 1957 – Gaylord Rives Co. Machine Mfg

612 S. Fair Oaks Avenue

- 1921 – Waste paper & Junk Co.
- 1927, 1932 – Steinberg Louis Junk
- 1937, 1947 – Kaplfan Jay 2D HD Goods
- 1950, 1957 – Pasadena Paper & Metal Co.
- 1956 – 1966 – Kaplan Jay used Plumbing Supply

8 E. California Boulevard

- 1921 – Mrs. M.E. Fassett
- 1956 – Jost Paul

10 E. California Boulevard

- 1995, 1999 – California Florist
- 2001 – A Valenzuelas Leven
- 2001 – C. Surcolordes
- 2001 – Talivta
- 2001 – Thorenv
- 2001 – Body Healing

12 E. California Boulevard

- 1921, 1927 – Crown Emporium Dpt Store
- 1921 – Dana F.C. Meats
- 1927 – Alderman F.H. Fruits
- 1927, 1932 – Frederick P.G. Meats
- 1932 – McMarr Stores Gro.
- 1937 – Losano Resendo
- 1937 – Safeway Stores, Inc.

- 1947 – 1957 – Rippee C.A. Grocery
- 1957 – Fuji Toralchi R.
- 2001 – Tamyanavelis
- 2001 – Zaderi Sarda

14 E. California Boulevard

- 1921, 1937 – Soulanlle J.C.
- 1927, 1932 – French Hand Laundry
- 1927 – Soulanille Simon
- 1947, 1951 – A Miller AA Indy
- 1950 – Joe's French Hand Laundry

18 E. California Boulevard

- 1995 – Qail

26 E. California Boulevard

- 1921 – Murooka Patsugi
- 1927 – California Liorlat
- 1937 – 1980 – California Florist
- 1937 – Mikuriya Tsuya
- 1957 – 1975 – Taves Edw California Florist

28 E. California Boulevard

- 1975 – Cable Craft Mfg
- 1985 – H&N Automotive SVC
- 1995 – 2006 – M&G Auto Body

4.7 Owner Interview

Mr. Ferdinand J. Soulanille, owner of Assessor's Parcel Numbers 5720-001-002 and 5720-001-003, met with CEC personnel at the subject site on March 14, 2007. Mr.

Soulanille reported that his parents owned the parcels since the 1910s and operated the laundries historically at the site. Mr. Soulanille was raised from childhood at the site and has been associated with activities at the site since then. He provided a history of the entire site during the interview. The 590-592 buildings have always been utilized for commercial, mainly restaurant, and office purposes. The current use of his property includes a restaurant (Monty's – 592 S. Fair Oaks) and a parking lot utilized by the restaurant. To the best of his knowledge, no manufacturing or industrial activities have taken place on the property. The laundry activities at the site between the 1920s and 1960s consisted of hand washing of articles of clothing. To the best of his knowledge, no dry cleaning activities were ever conducted at the laundries. A junk yard that specialized in plumbing supplies occupied the southern portion of the property during most of the time that the site was developed. Mr. Soulanille is not aware of any negative environmental conditions at the site or any environmental cleanups at the site. He also reported that none of the following structures or materials are present or have been present at the site, to the best of his knowledge:

- Groundwater wells
- PCB-containing equipment
- Hazardous materials
- Aboveground storage tanks
- Underground storage tanks
- Septic tanks
- Clarifiers
- Landfill
- Ponds, pits or lagoons

On March 20, 2007 G&E Properties, owners of Assessor's Parcel Numbers 5720-001-001 and 5720-001-004, completed an environmental questionnaire provided by CEC. G&E Properties has been familiar with the subject site for approximately 30 years. The addresses that make up their property include 590 S. Fair Oaks Avenue and 10, 26 and 28 E. California Boulevard. The businesses currently operating at the site include Grandview

Palace (590 S. Fair Oaks), Body Healing Center (10 E. California) and M&G Auto Body Shop (28 E. California). A parking lot is present at the northeastern corner of the property. Former tenants at the site include a flower shop and a storage shop for medical and oxygen supplies. The owners are not aware of any environmental cleanups at the site. The only use of hazardous materials at the site that they are aware of is those utilized at the body shop. The owners reported that they are not aware of the use or presence of any of the following structures at the site, to the best of their knowledge:

- Groundwater wells
- PCB-containing equipment
- Aboveground storage tanks
- Underground storage tanks
- Septic tanks
- Clarifiers
- Landfill
- Ponds, pits or lagoons

On March 19, 2007, Monty's LTD Partnership, owner of Assessor's Parcel Number 5720-001-005, completed an environmental questionnaire provided by CEC. The current us of the site is a parking lot utilized by Monty's Restaurant. The owner of this portion of the site has been familiar with the subject site for approximately 67 years. Prior to the use of this portion of the site as a parking lot, it was developed as a residential house. According to other records reviewed, this portion of the site was also utilized as a junk yard and plumbing supply yard. The owner is not aware of any environmental cleanups at the site. The owner reported that he is not aware of the use or presence of any of the following structures or materials at the site, to the best of his knowledge:

- Groundwater wells
- PCB-containing equipment
- Hazardous Materials
- Aboveground storage tanks
- Underground storage tanks

- Septic tanks
- Clarifiers
- Landfill
- Ponds, pits or lagoons

5.0 POTENTIAL SOURCES OF HAZARDOUS SUBSTANCES

5.1 Underground Storage Tanks

No physical evidence or documentary evidence has been uncovered that would lead us to believe that underground storage tanks have existed at the subject site. CEC will comment that the subject site has been utilized for commercial and light industrial (wood working) purposes since the 1880s and due to these uses, particularly in the late part of the 19th century and early 20th century, it is possible that undocumented underground vessels were used at the site. Due to extensive redevelopment of the site over the years, it is unlikely that any such structures still exists at the site, but CEC will comment that if any underground vessels are encountered during redevelopment the Pasadena Fire Department should be contacted prior to the removal of the vessel.

5.2 Aboveground Storage Tanks and Drums

No physical evidence or documentary evidence has been uncovered that would lead us to believe that aboveground storage tanks or drums are currently present at the site. An aboveground water tank was present near the northwestern corner of the subject site in 1888. This structure appears to have been used by a woodworking shop in the northern portion of the site. CEC will comment that small containers of hazardous chemicals are present at the auto body shop (28 E. California). Fire Department records indicate that the containers of paint and related chemicals do not exceed a volume of one gallon. The southern portion of the subject site was formerly utilized as a junk yard and plumbing storage yard prior to the 1970s. Due to these uses it is possible that buried drums or remnants of such structures may be present in the subsurface. If such structures are encountered during redevelopment of the subject site it is recommended that

environmental consultant be contacted to evaluate the soil conditions in the area surrounding the structure prior to removal of the structure.

5.3 Sumps, Clarifiers, Pools and Pits

No physical evidence was uncovered that would lead CEC to believe that sumps, clarifiers, pools or pits have been present at the subject site. Mr. Ferdinand Soulanille reported that to the best of his knowledge, the current structures at the site have been connected to a city-wide sewer system since the 1920s.

5.4 Stressed Vegetation

The entire site was void of vegetation at the time of the site inspection.

5.5 Stained Soil or Pavement

Only minor oil stains typical of parking lots were noted on the pavement throughout the site. No exposed soil was noted at the time of the site inspection.

5.6 Solid Waste

No evidence has been uncovered that suggests that solid waste has been disposed of at the site or that the site has produced significant amounts of solid hazardous waste.

5.7 Waste Water

No evidence has been uncovered that indicates that significant volumes of waste water are routinely generated or disposed of on the site. CEC will comment that two laundries operated at the site from the 1920s to the early 1960s. Wastewater from these facilities appears to have been disposed of through the sanitary sewer.

5.8 Petroleum Products

No current or past manufacturing processes have existed at the subject site that would lead CEC to believe that moderate to large amounts of petroleum products have been generator or disposed of at the subject site.

5.9 Other Chemicals.

Chemicals that are currently used at the site include those associated with automobile painting. The quantities of these chemicals have been reported to be relatively low.

5.10 Pesticides and Herbicides

A review of aerial photographs dating back to the late 1920's revealed that the site has not been historically utilized for agricultural purposes for at least the last 80 years. Other documentary evidence also revealed that the site has been either vacant or developed for commercial/light industrial purposes in the 1880s. It is unlikely that significant quantities of pesticides or herbicides have been utilized at the subject site. Further, it does not appear that the surrounding properties were utilized for agricultural purposes. It is unlikely that pesticides or herbicides are present in subsurface soils at the subject site.

5.11 Radon

Based on our previous experience with projects at localities with similar conditions, it is CEC's opinion that the site and immediate vicinity are situated within a Radon Zone with a level rated at 2, which indicates that the predicted average indoor screening level of radon is most likely to be between 2pCi/L and 4 pCi/L. The EPA action level for radon retesting and subsequent possible remediation is 4 pCi/L, thus, no remedial action is likely to be necessary.

5.12 PCB's

A detailed PCB survey was not a part of the scope of this assessment. CEC noted on pole-mounted transformer near the southeastern corner of the auto body shop at the site. No stains or other evidence of leaks from this transformer were noted around the transformer.

5.13 Asbestos

A detailed asbestos survey was not a part of the scope of this assessment. CEC will comment that due to the age of the buildings at the site, it is possible that asbestos-containing materials are present at the subject site. CEC recommends that a licensed asbestos surveyor be contacted prior to the demolition of any structures at the site.

5.14 Lead and Heavy Metals

A detailed lead-based paint and heavy metal survey was not a part of the scope of this assessment. CEC will comment that due to the age of the buildings at the site, it is possible the lead-based paint is present at the subject site. CEC recommends that a licensed lead surveyor be contacted prior to the demolition of any structures at the site.

5.15 Storm Water Runoff

Storm water generated at the subject site flows via sheet flow from the northern portion of the site to the southern portion of the site and out to South Fair Oaks Avenue and Edmonson Alley.

5.16 Neighboring Properties.

Neighboring properties with probable environmental concerns are covered in the Federal and State Environmental Records section (4.1). No areas of significant environmental concern were noted in the immediate vicinity of the subject site.

5.17 Landfills

No evidence has been uncovered that would suggest that the subject site has been utilized as a licensed or unlicensed landfill. No landfills were reported within a one-half mile radius of the subject site by EDR.

5.18 Oil Wells

A review of Map W1-2 published by the California Department of Oil, Gas and Geothermal Resources revealed that no oil wells have existed at the subject site. The closes oil well to the subject site, Vosburgh Oil Corp, is located approximately seven mile east of the site. This well is a plugged and abandoned dry hole.

6.0 LIMITED PHASE II ASSESSEMENT

On April 2, 2007 a CEC representative was onsite during a geotechnical investigation to collect soil samples from three borings located throughout the site. Boring B-2 was located down gradient of the auto body shop. Soil samples were collected beginning at five feet below ground surface (bgs) at five-foot intervals to a maximum depth of twenty five feet bgs. The samples were collected in 2.5" diameter brass rings with the use of a hollow stem auger and hollow sampling tube. The CEC representative monitored the borings, soil cuttings and the soil samples for hydrocarbon vapors with the use of a PhotoIonization Detector (PID) calibrated to hexane. No concentrations of hydrocarbon vapors were detected by the PID and no visual or olfactory evidence of contamination was detected in the excavated soils or samples.

The collected soil samples were capped with polyethylene caps, labeled and placed in a cooler with "Blue Ice" in preparation for transport to Alpha Scientific Corporation for analysis. The laboratory was instructed to analyze all of the soil samples for Total Petroleum Hydrocarbons (TPH) in the gasoline, diesel and oil ranges using EPA Method 8015M. Additionally, the laboratory was instructed to analyze any soil sample with detectable concentrations of TPH for Volatile Organic Compounds (VOC) using EPA Method 8260B. Of the fifteen soil samples collected only the five-foot sample (bgs) from Boring B-1, collected from the southwestern portion of the site had detectable concentrations of TPH. Diesel-range TPH was detected at a concentration of 7.8 mg/kg and oil-range TPH was detected at 56 mg/kg in this soil sample. These concentrations are considerably low and below concentrations that are typically considered actionable by regulatory agencies. No VOCs were detected in this soil sample. The findings likely represent a relatively small fuel spill that occurred during development/redevelopment activities at the site. CEC recommends that a soil export management plan be implemented during excavation and grading activities at the site to ensure that no contaminated soil is improperly disposed of offsite. Soils in the area around boring location B-1 should be segregated and analyzed prior to offsite disposal. CEC recommends that an attempt be made to remove all traces of this soil contamination from the site during site grading phases of development. This may require a relatively minor

over-excavation in this area and further analysis of those soils. All detectable soil contamination should be transported to an appropriately licensed disposal facility. CEC also recommends that any soil encountered during future grading activities that appears to have been affected by hydrocarbon contamination be evaluated by an environmental consultant prior to offsite disposal.

7.0 CONCLUSIONS AND RECOMMENDATION

Carlin Environmental Consulting, Inc. conducted a site inspection, historical document research, and governmental regulatory agency database reviews to determine if there are any indications that significant contamination may exist on the site. The data gaps appear to be minor and do not appear to have a significant impact on the environmental assessment of the site. CEC will note that it was not able to inspect the interior of the buildings at the subject site due to complexities associated with tenant relations and the pending real estate transaction. Interviews with site owners revealed that the only area of possible concern is the auto body shop in the eastern portion of the site. The buildings in the western portion of the site appear to have only been used for office space, commercial use and food service use over the past eighty years. The possibility exists that some soil contamination may be present under the auto body shop building, but due to the small quantities of chemicals stored at this location, it is likely that any such contamination will be limited in aerial extent. CEC recommends that any soil encountered during future grading activities that appears to have been affected by hydrocarbon contamination be evaluated by an environmental consultant prior to offsite disposal at a licensed facility.

The southern 1/3 of the site was formerly utilized as a junk yard and plumbing storage yard. Due to this use of the property, the possibility exists that buried structures may be encountered during grading activities at the site. The grading contractor should be made aware of this issue and informed to evaluate the conditions if any buried structures, such as drum, tanks, etc., are encountered before removing the structures and surrounding soil. An environmental consultant should be contacted if subsurface structures are encountered during excavation at the site. In addition, if underground tanks, or remnants thereof, are

encountered in the subsurface, the Pasadena Fire Department should be contacted to ensure that proper procedures are followed for proper removal of such structures.

Soil samples were collected from three sampling locations, in tandem with a scheduled geotechnical investigation. Soil sample B1-5' was determined to contain low concentrations of diesel-range and oil-range TPH. CEC recommends that a soil export management plan be implemented during excavation and grading activities at the site to ensure that no contaminated soil is improperly disposed of offsite. Soils in the area around boring location B-1 should be segregated and analyzed prior to offsite disposal. An attempt should be made to remove all traces of this soil contamination from the site during site grading phases of development. This may require a relatively minor over-excavation in this area and further analysis of those soils. All detectable soil contamination should be transported to an appropriately licensed disposal facility.

CEC will also note that due to the age of the buildings at the subject site it is possible that asbestos-containing materials and lead-based paint may be present at the site. A contractor licensed to conduct asbestos and lead surveys should be contacted prior to the demolition of any structures at the subject site.

8.0 SIGNATURE PAGE

The opportunity to be of service is appreciated. If you have any questions, please call.

Very truly yours,

Carlin Environmental Consulting

Gary T. Carlin
Senior Environmental Geologist
R.E.A. 3403

Otto Figueroa
Project Environmental Scientist

References

California Division of Mines and Geology. 1977. Los Angeles Quadrangle Special Studies Zones Map.

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Figures

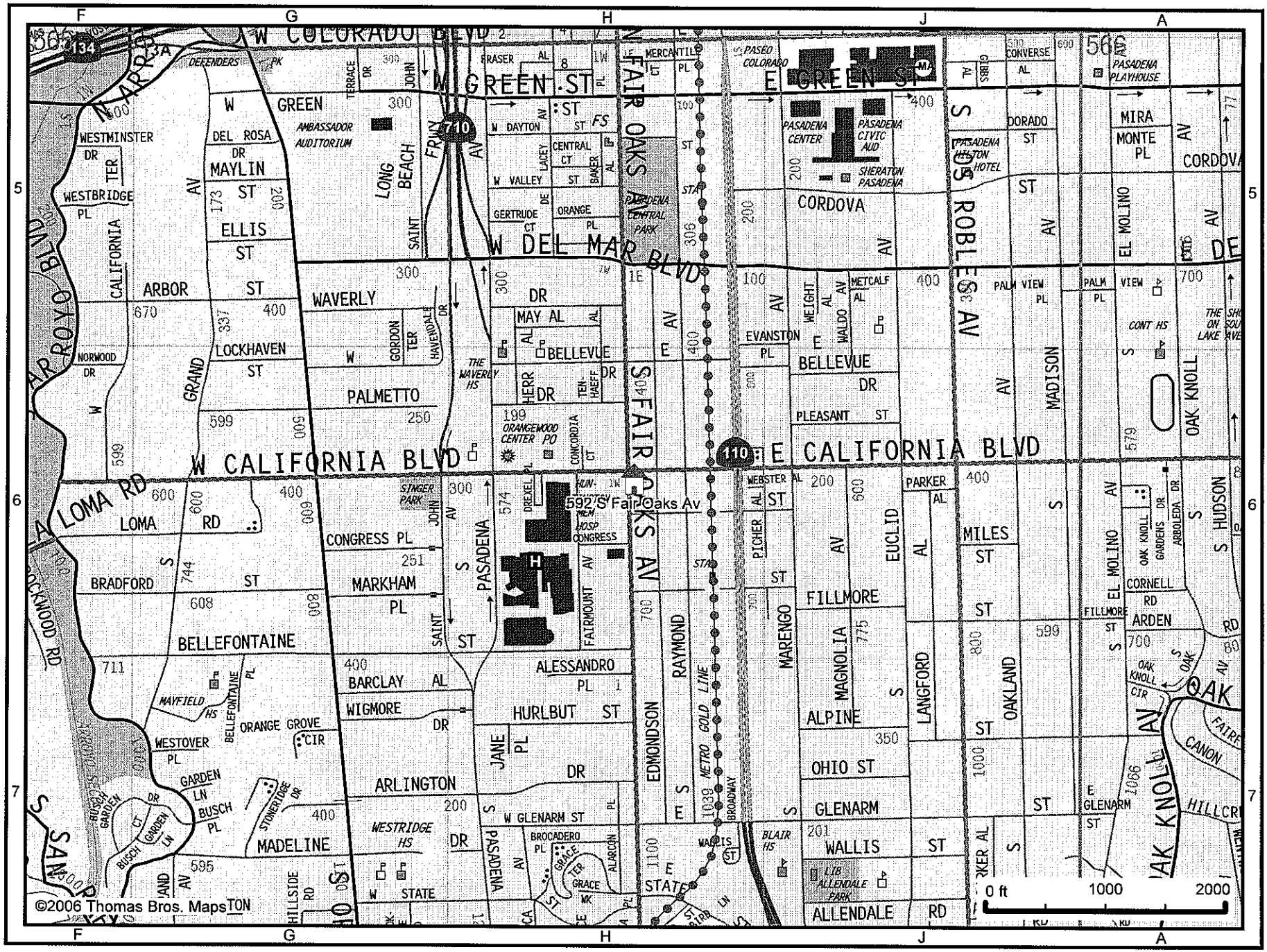

Figure 1. Site Location Map

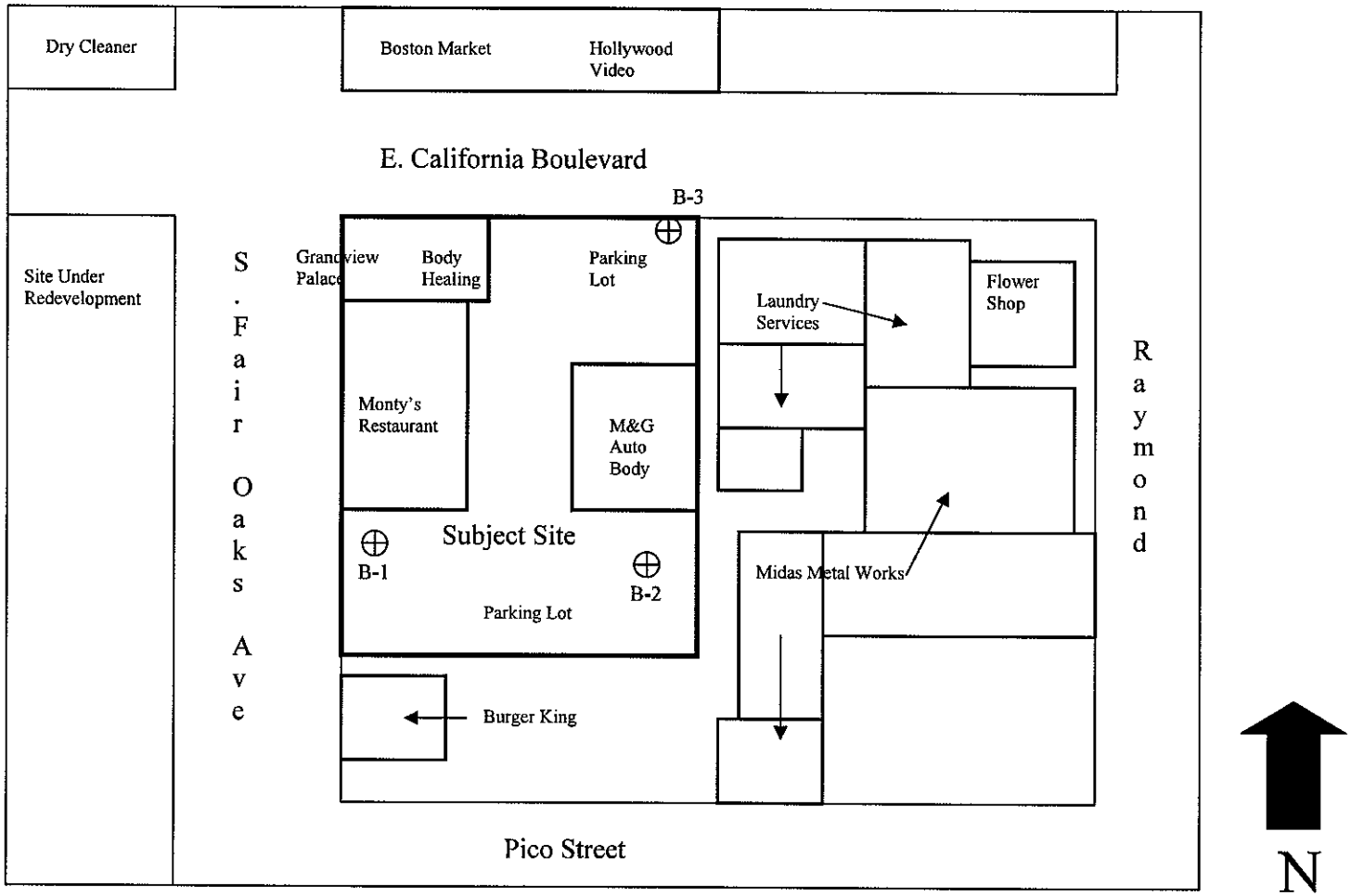

Figure 2. Site Map and Boring Locations

Aerial Photographs

The EDR Aerial Photo Decade Package

UDP-Pasadena
590 South Fair Oaks Avenue
Pasadena, CA 91105

Inquiry Number: 1872892.5

March 08, 2007

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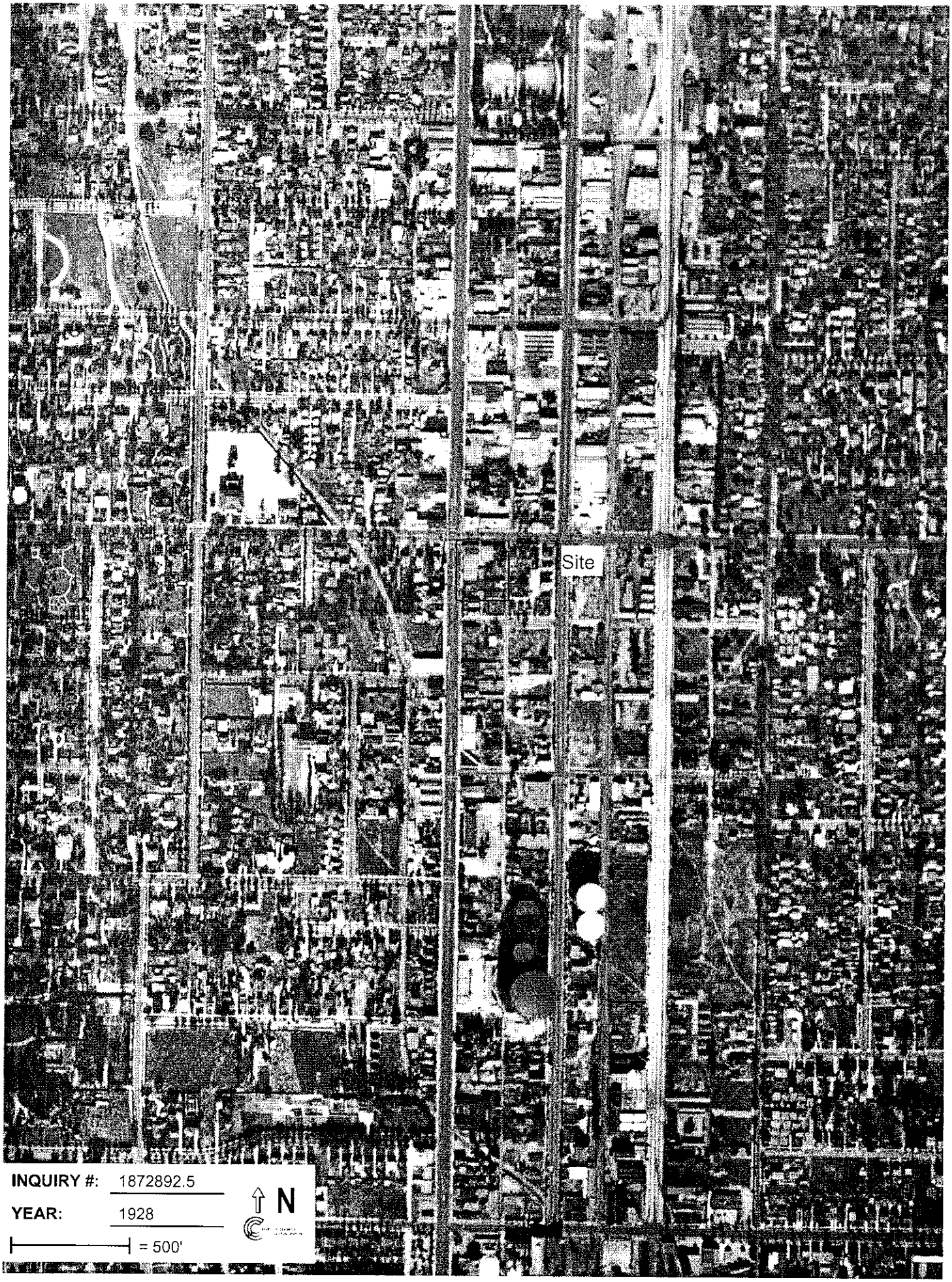
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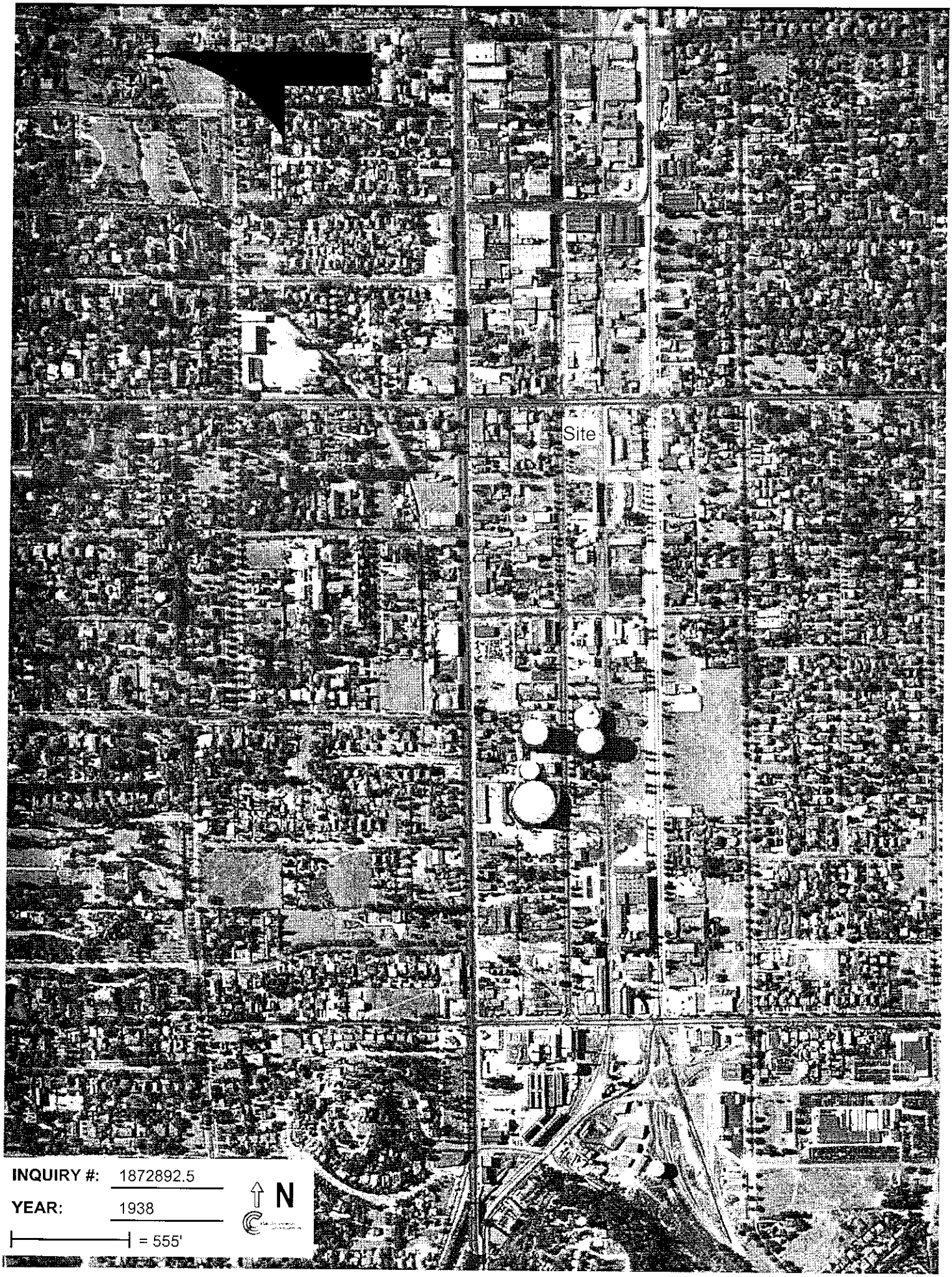
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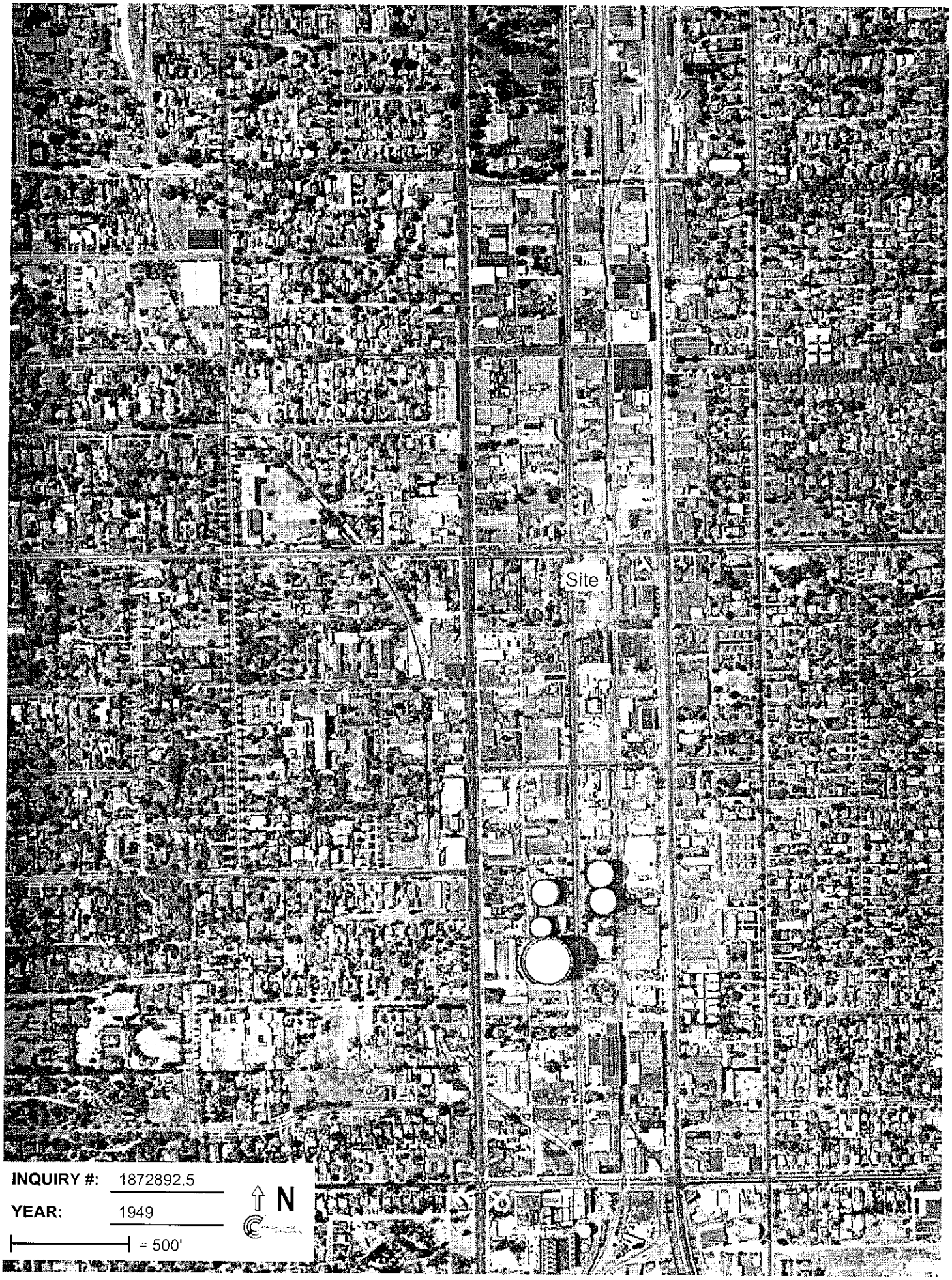
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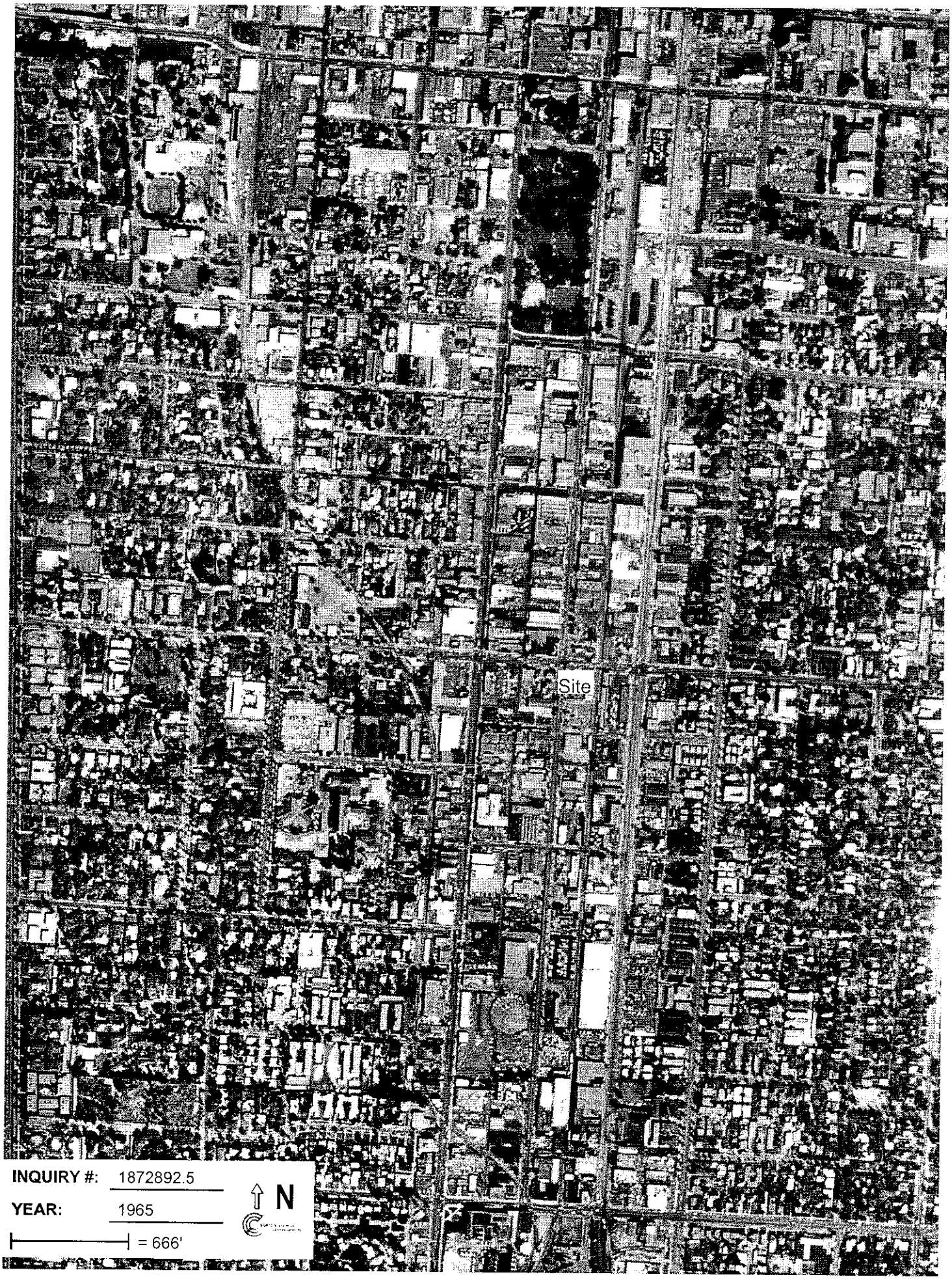
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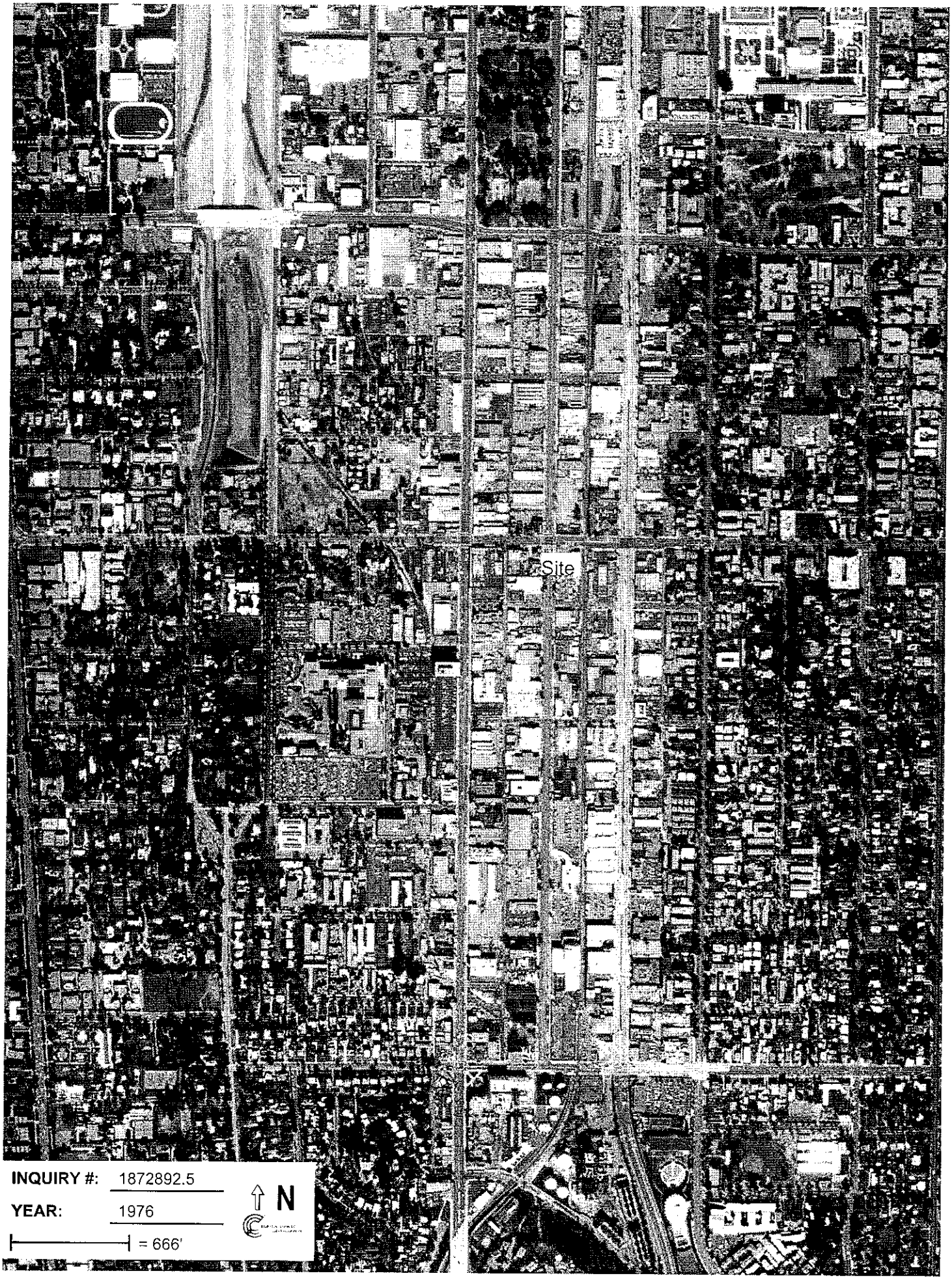
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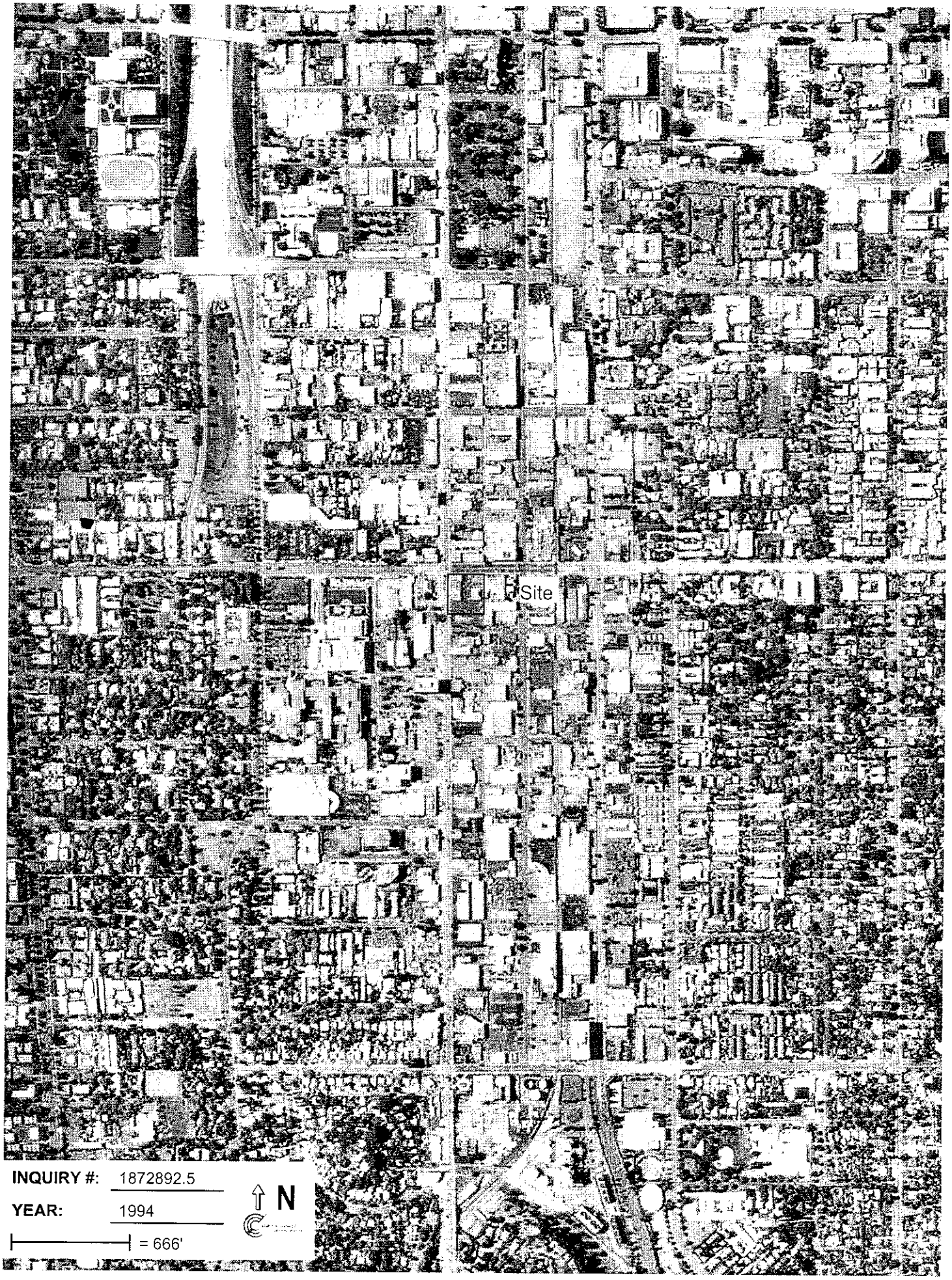
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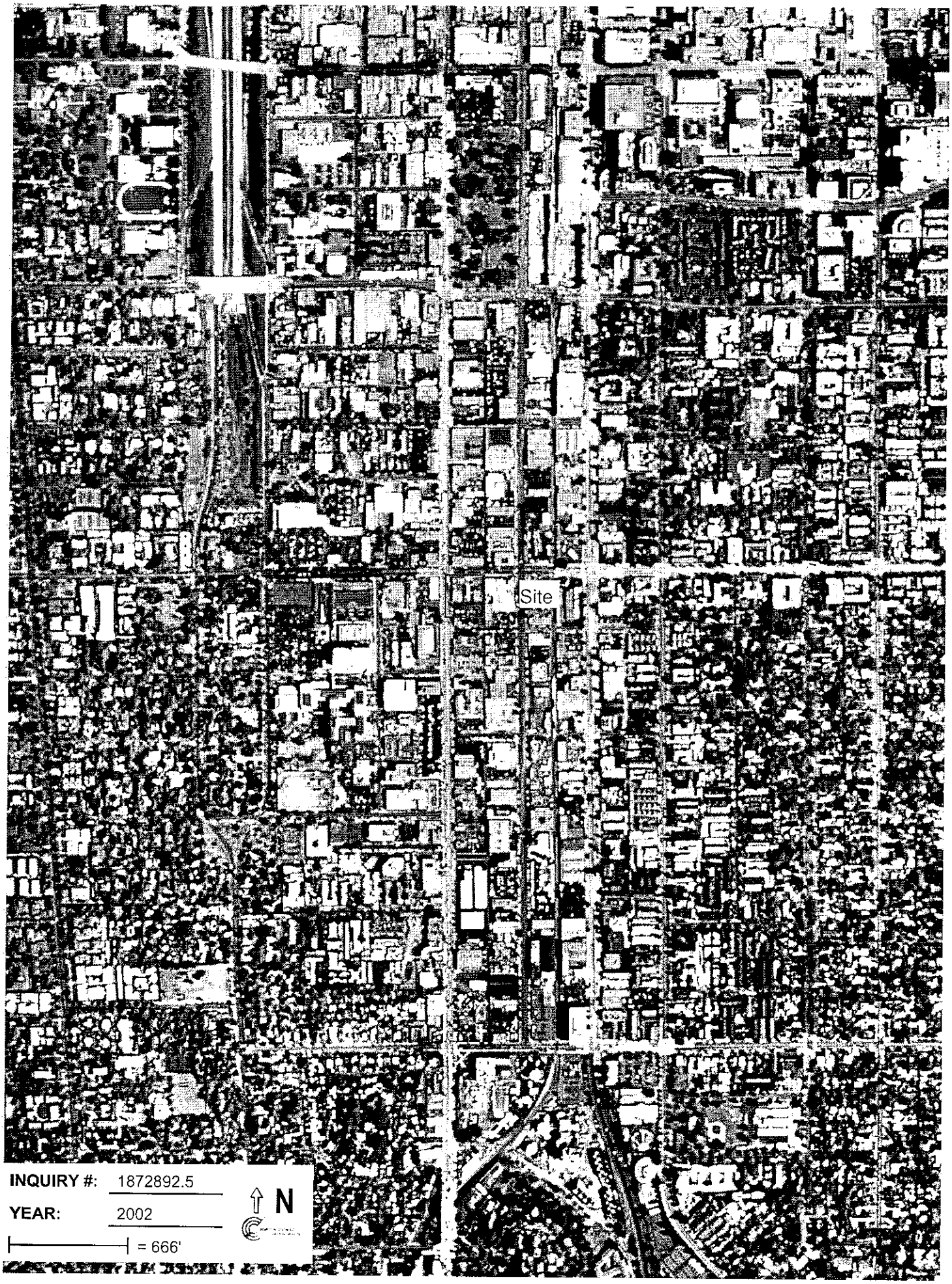
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Topographic Maps

EDR Historical Topographic Map Report

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590 South Fair Oaks Avenue
Pasadena, CA 91105

Inquiry Number: 1872892.4

March 08, 2007

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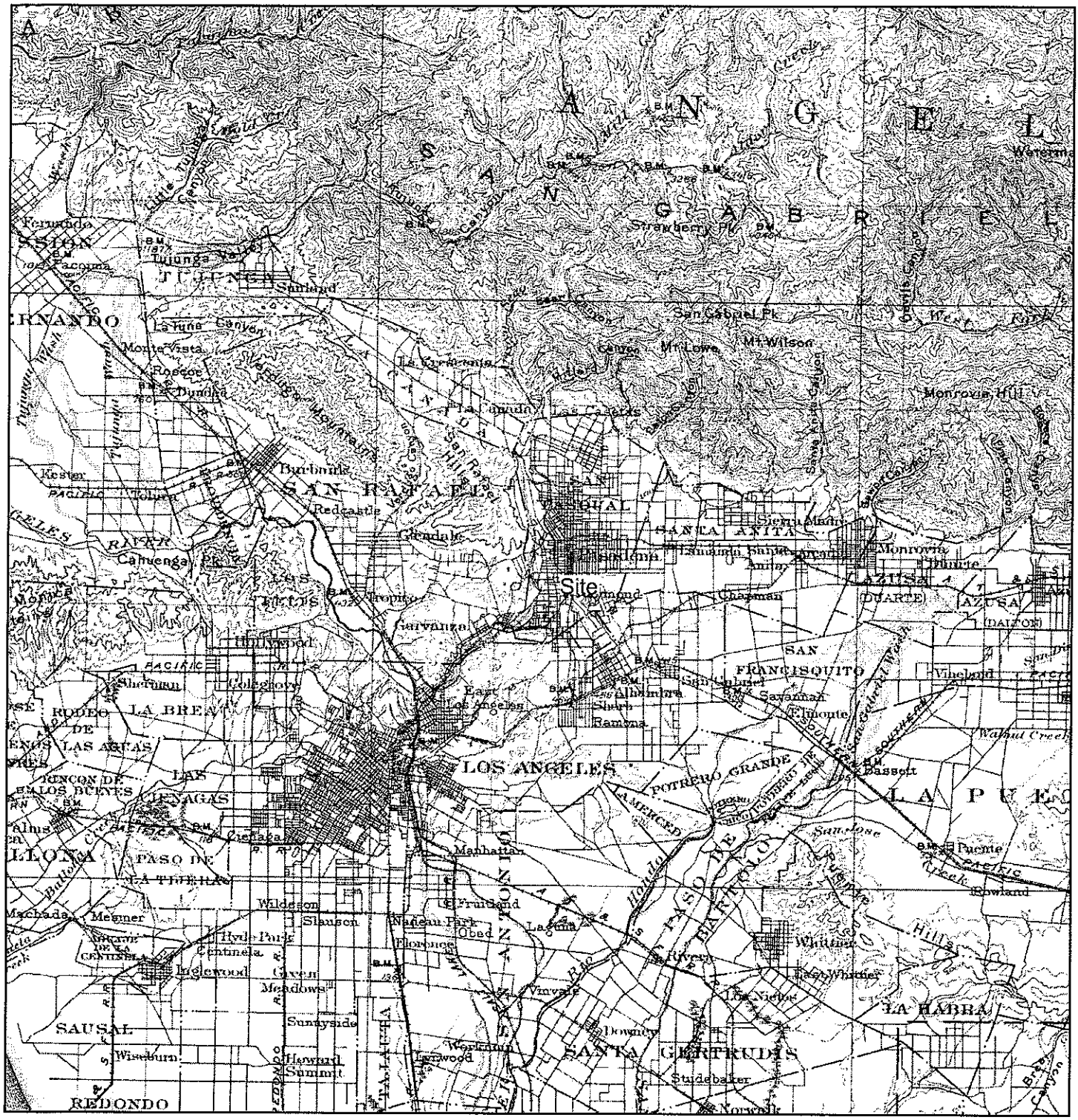
Historical Topographic Map



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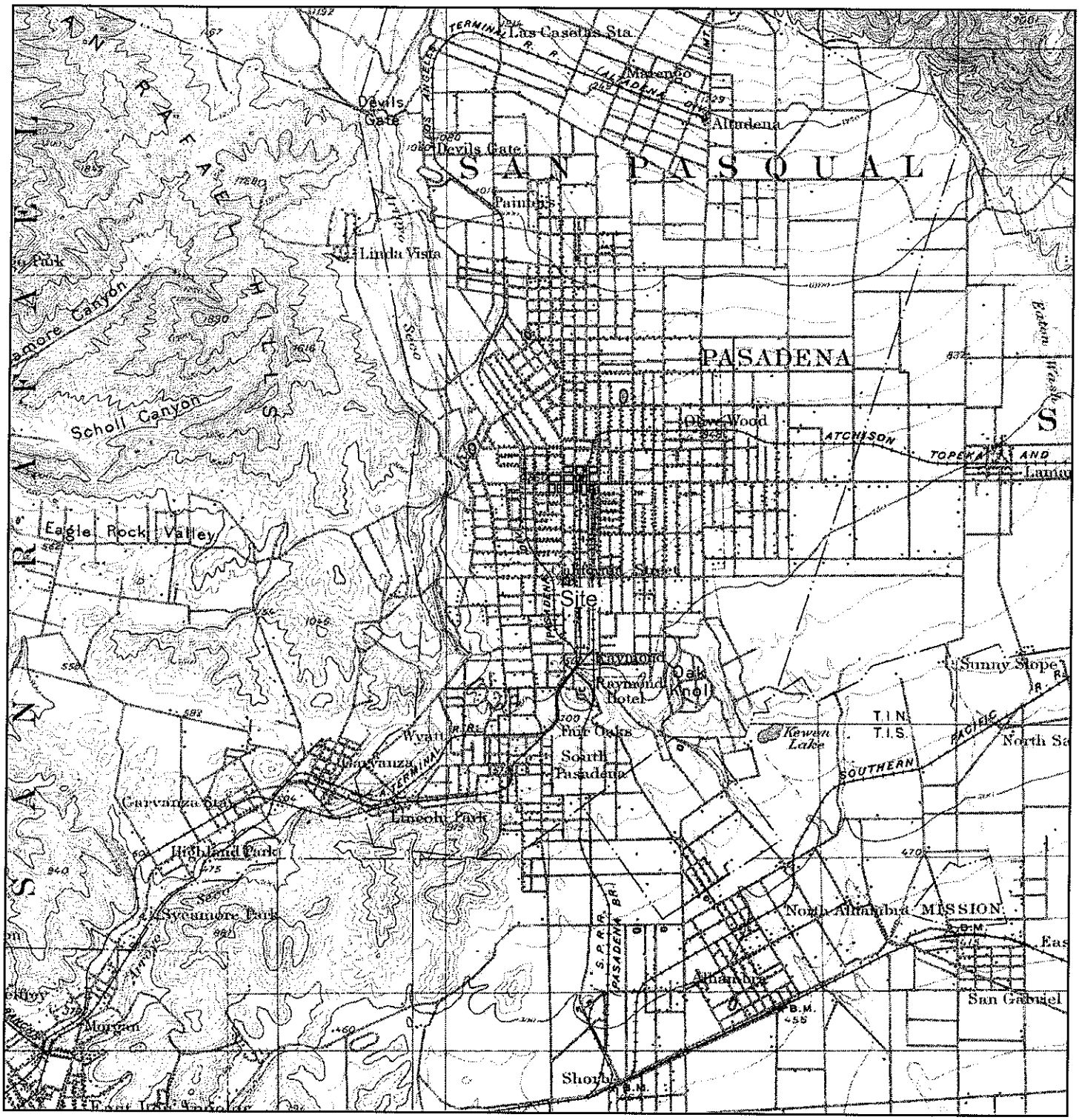

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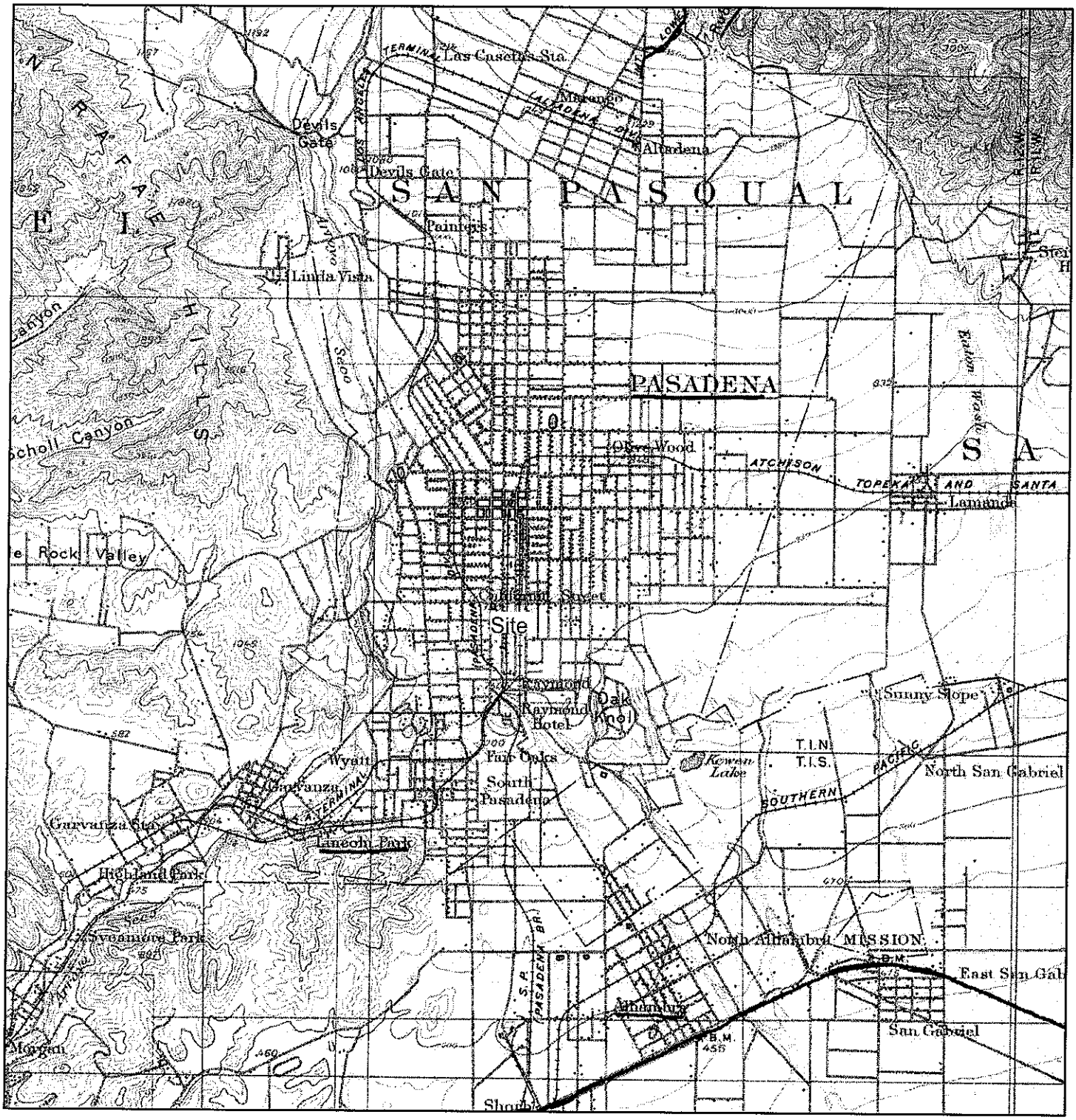

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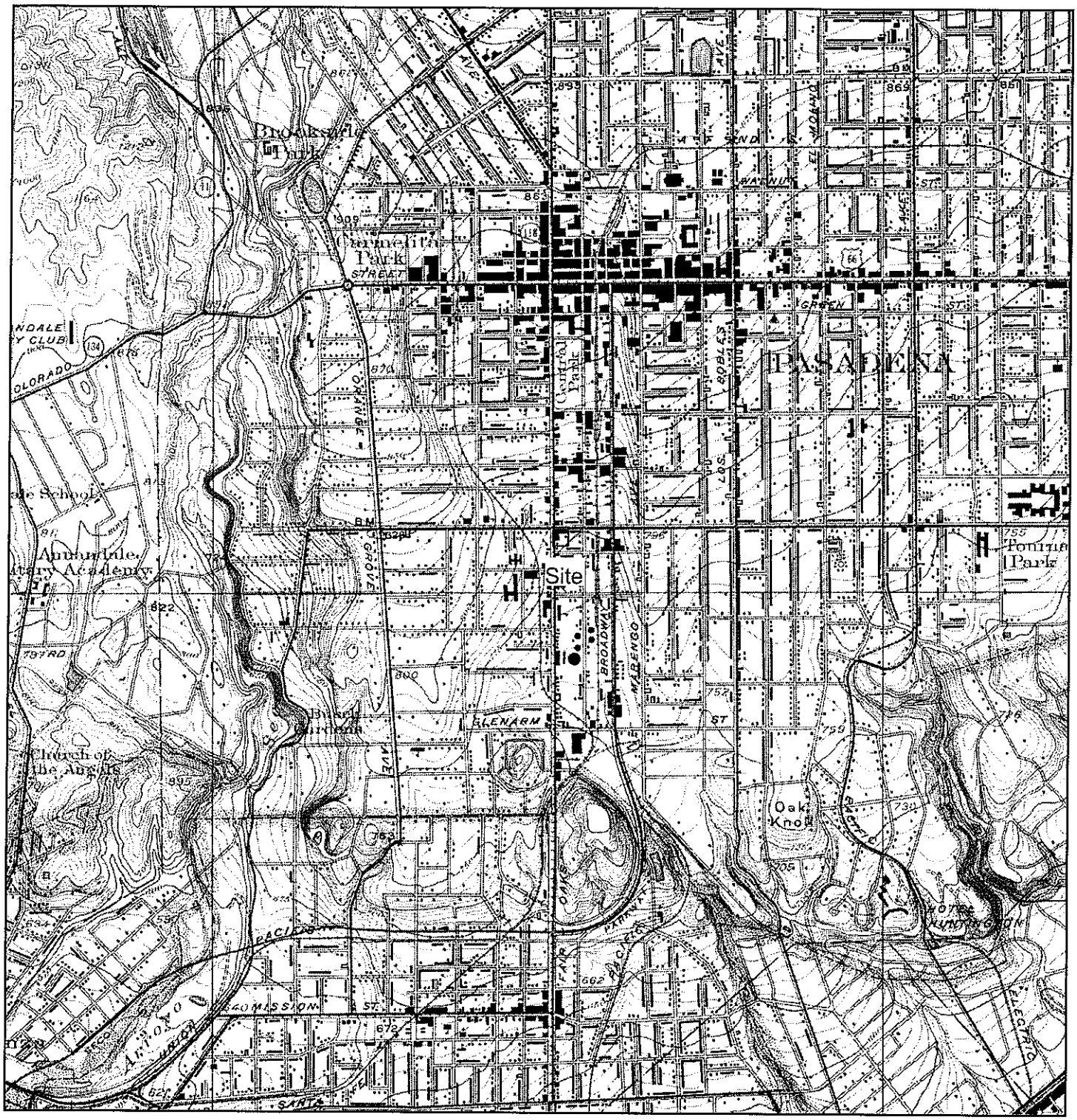

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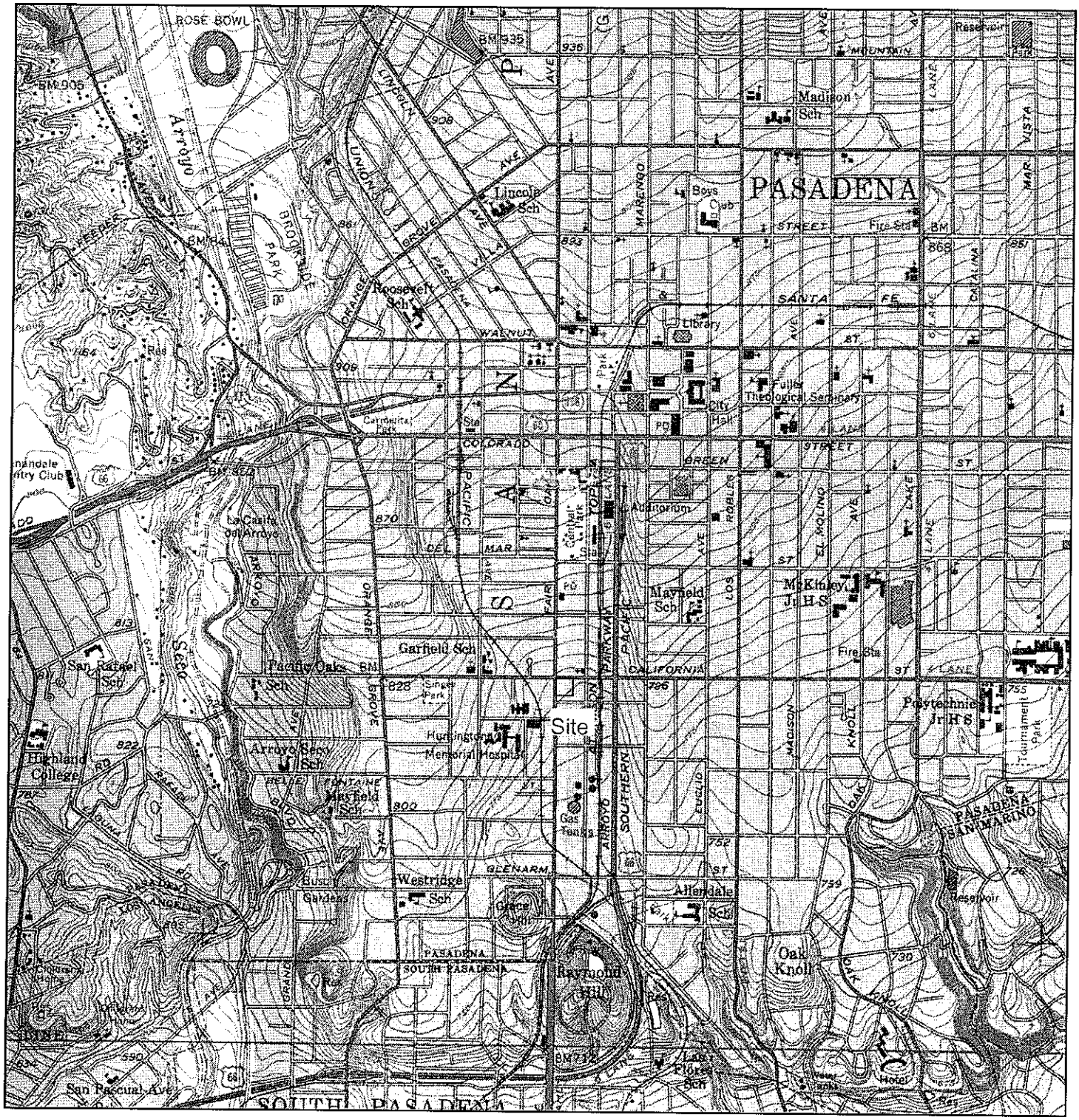

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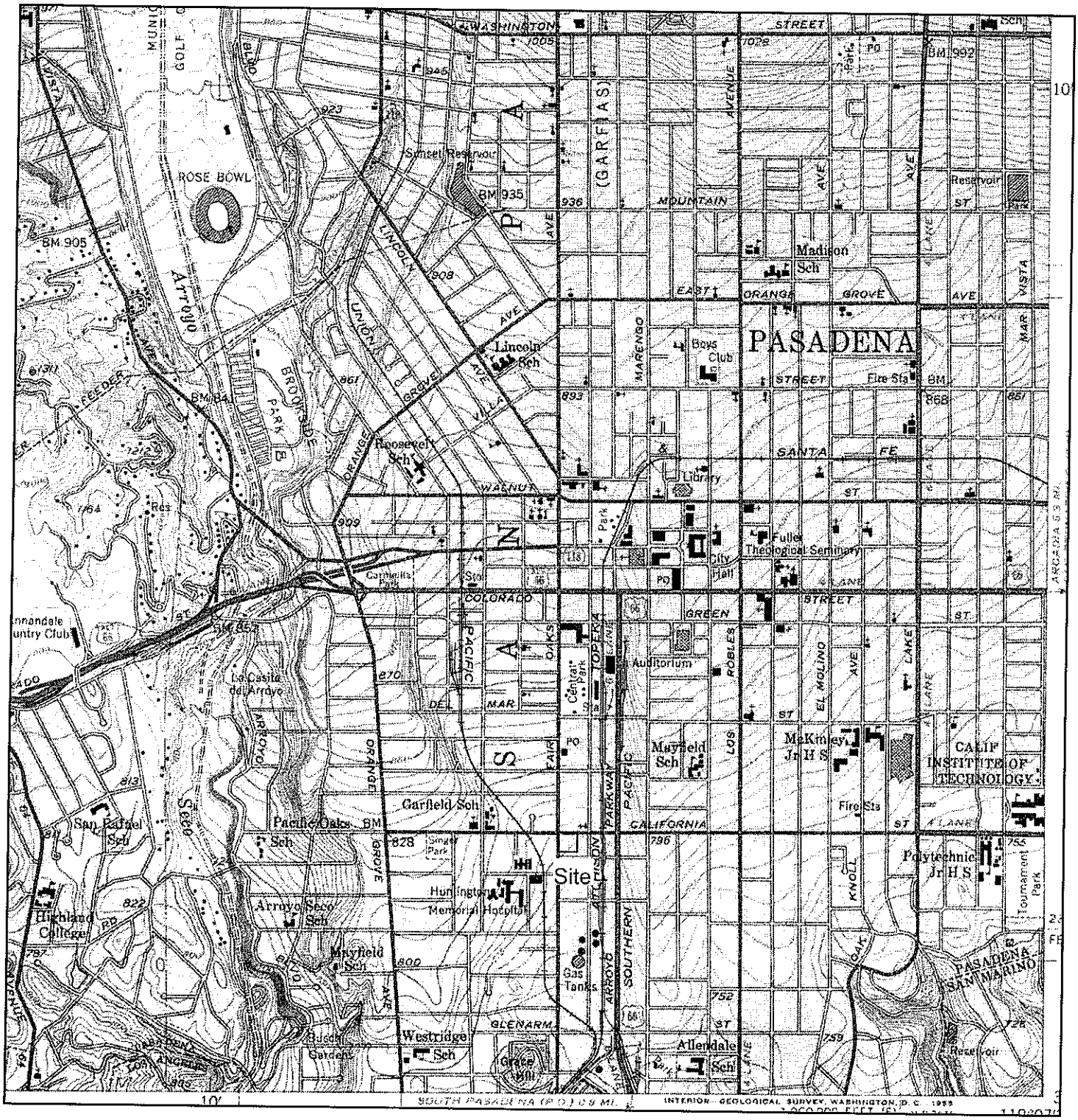

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Historical Topographic Map

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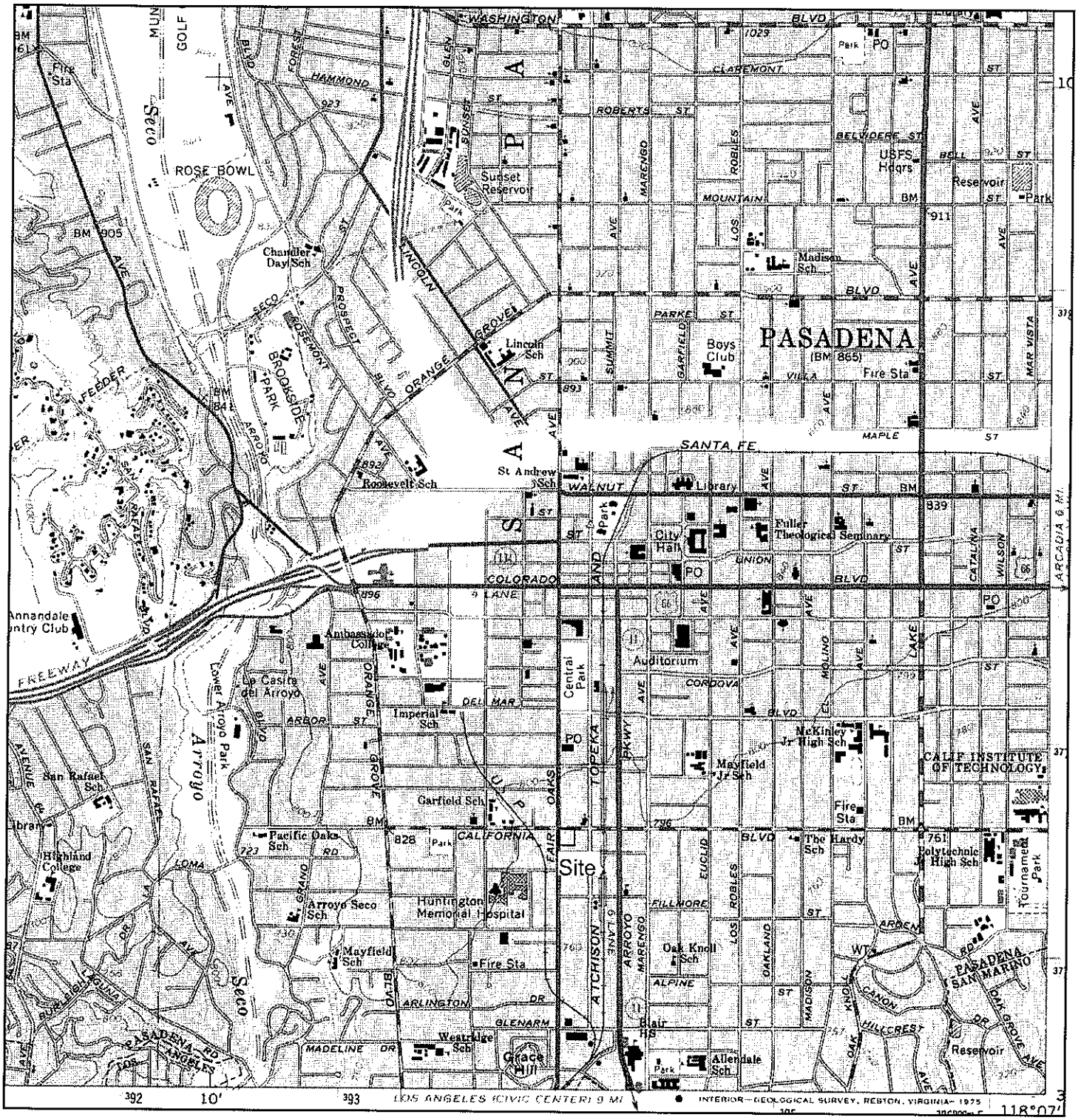

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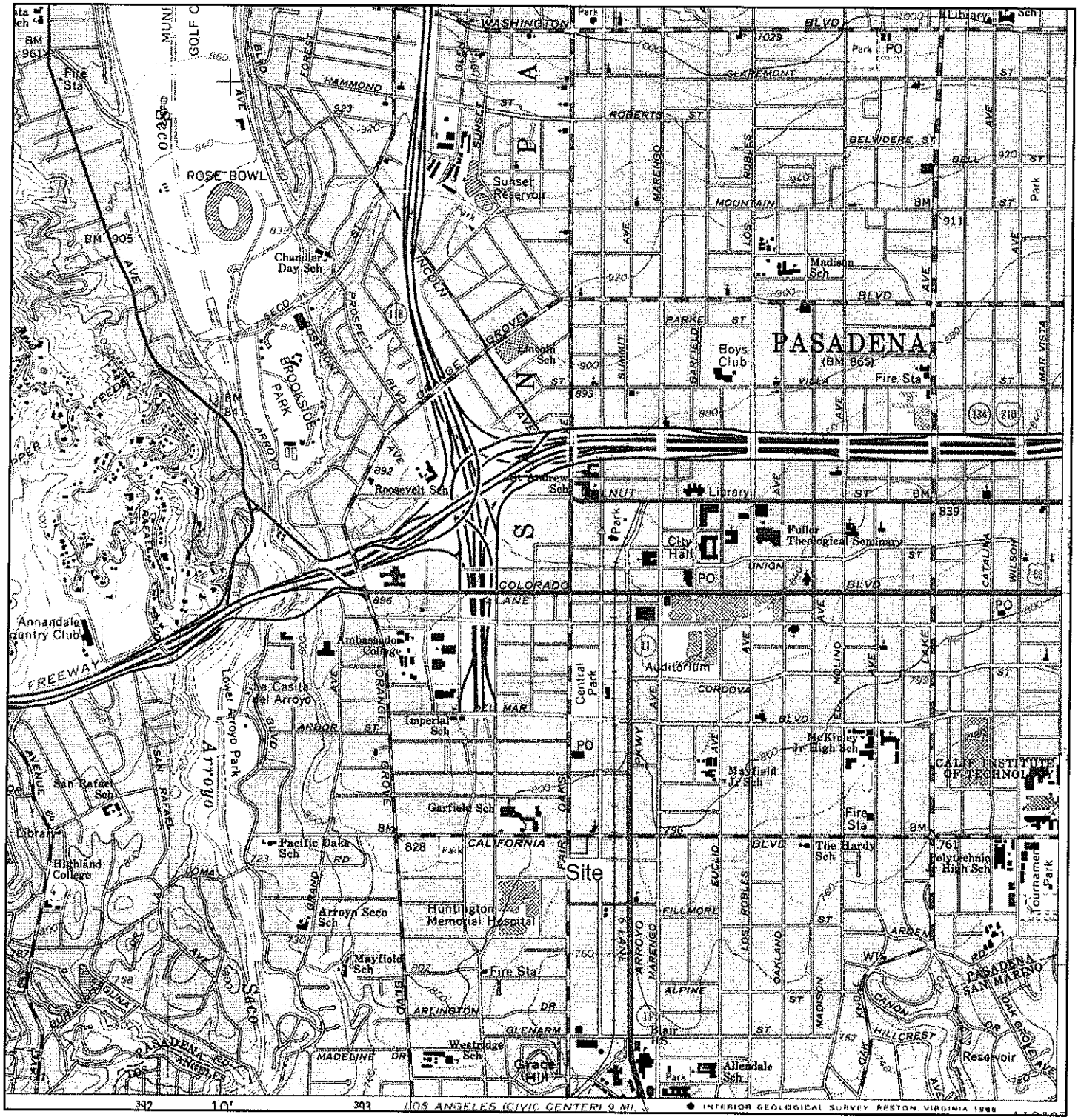

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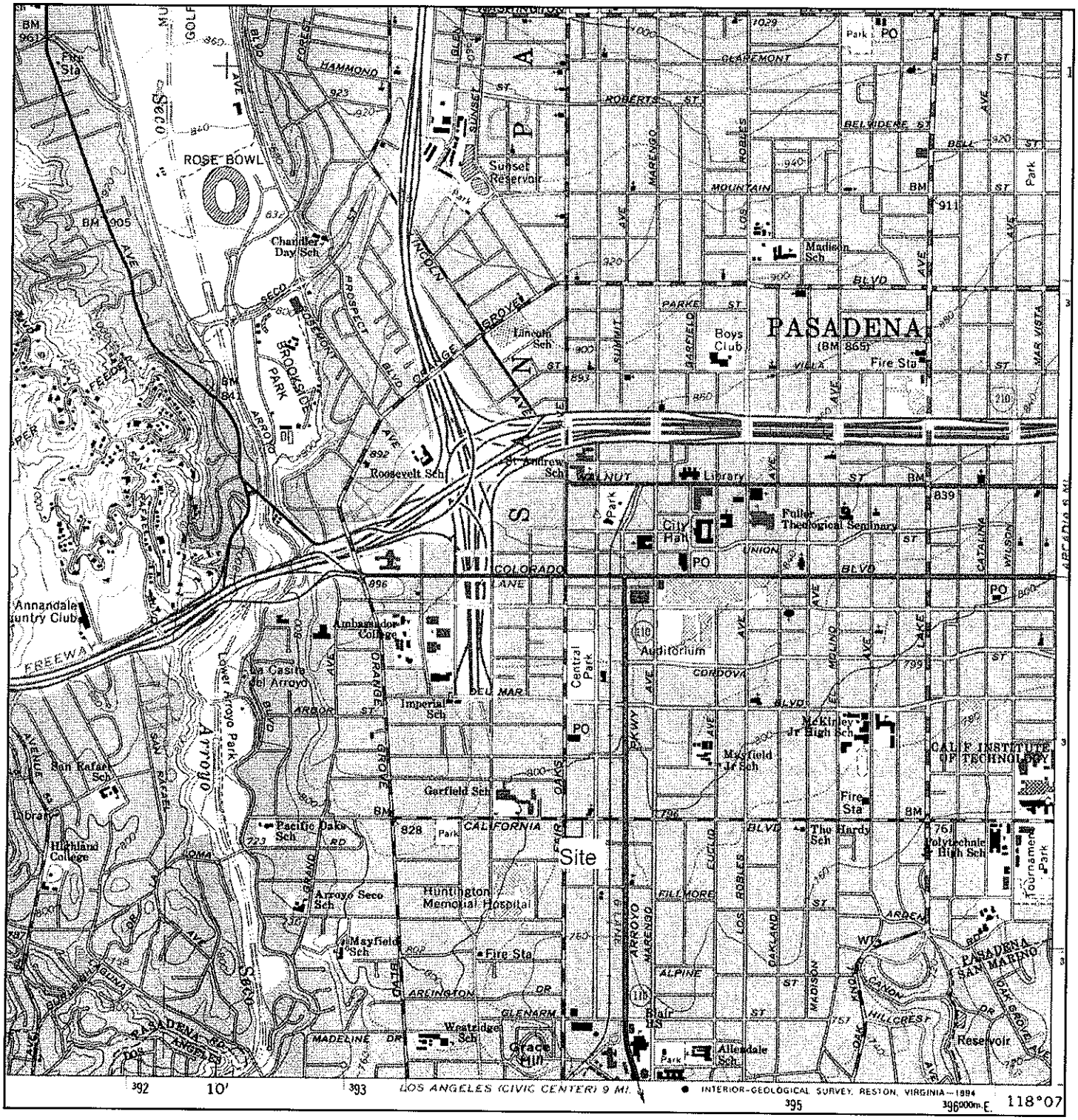

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