

Appendix A

Notice of Preparation and Initial Study

Notice of Preparation

To: EIR & Notice of Preparation Mailing List

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report

Lead Agency:

Consulting Firm: (if applicable)

Agency Name: City of San Luis Obispo

EIR to be prepared by:

Department Name: Public Works

Firm Name: Rincon Consultants, Inc.

Street Address: 919 Palm Street

Street Address: 1530 Monterey Street, Suite D

City/State/Zip: San Luis Obispo, CA 93401

City/State/Zip: San Luis Obispo, CA 93401

Contact: Tim Bochum, 805-781-7203

Contact: Richard Daulton

The City of San Luis Obispo will be the Lead Agency and will prepare an environmental impact report 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 this project.

The project description, location, and the potential environmental effects are summarized in the attachment. A copy of the Initial Study is not attached, but is available upon request from the Lead Agency (see above contact). 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 the attention of Tim Bochum, Deputy Director, Transportation, in the City of San Luis Obispo Public Works Department at the address shown above. We will need the name of a contact person in your agency.

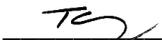
Project Title: Palm Nipomo Parking Structure Project

Project Location: The site is a 1.4-acre property, located south of Palm Street, east of Nipomo Street, and north of Monterey Street in the City of San Luis Obispo. The property includes Assessor's Parcel Numbers (APN) 002-412-001, 002-412-002, 002-412-003, 002-412-004, 002-412-011, and 002-412-012.

Project Description:

The project involves the construction of an above-ground, five-story parking structure, 5,000 square feet of commercial space, and a non-profit theater. The parking structure would provide 400 to 445 parking spaces. The theater would entail a three-story structure with a gross floor area of 23,841 square feet and up to 255 theater seats. The project would include a General Plan amendment from Office and Medium-High Density Residential to Public and a Zone Change from Office with a Historic Overlay (O-H) and Medium-High Density Residential (R-3) to Public Facility with a Historic Overlay (PF-H). The PF-H zone allows for development of a multi-level parking structure and non-profit theater, and deviations to otherwise applicable setback requirements and building height limits with Planning Commission approval. Commercial uses would be allowed as accessory uses of the parking and theater facilities. The project would also require a variance for the floor to area ratio to exceed 1.0 and maximum coverage to exceed 60 percent.

Date: May 1, 2017

Signature: 

Title: Principal Planner

NOTICE OF PREPARATION ATTACHMENT PALM NIPOMO PARKING STRUCTURE PROJECT

The City of San Luis Obispo, as Lead Agency under the California Environmental Quality Act (CEQA), is requesting comments on the environmental impact report (EIR) scope of work for the proposed project, described below and in the Notice of Preparation, and commonly referred to as the Palm Nipomo Parking Structure Project. The Initial Study is currently posted on the City's website through the following file path:

Initial Study: <http://www.slocity.org/government/department-directory/community-development/documents-online/environmental-review-documents/-folder-1903>

Project Location and Setting

The site is a 1.4-acre property, located south of Palm Street, east of Nipomo Street, and north of Monterey Street in the City of San Luis Obispo. The property includes Assessor's Parcel Numbers (APN) 002-412-001, 002-412-002, 002-412-003, 002-412-004, 002-412-011, and 002-412-012.

The site is currently occupied by a City-owned surface parking lot, one detached garage, and five residential units (three single-family residences and one secondary unit adjacent to Palm Street that has two apartments). The project site is located within the City's Downtown Historic District.

Project Description

The project involves the removal of an existing 77 space surface parking lot and five existing residential structures and construction of an above-ground, five-story parking structure, non-profit theater, and commercial space. The parking structure would provide 400 to 445 parking spaces. Main vehicular access to the structure would be provided from Palm Street, with secondary access on Nipomo Street. Vehicle access would not be provided from Monterey Street. The project would also include 5,000 square feet of commercial space fronting Nipomo Street. The San Luis Obispo Little Theatre would also be relocated to the site, fronting Monterey Street adjacent to the parking structure. The Little Theatre would entail a three-story structure with a gross floor area of 23,841 square feet and up to 255 theater seats. The project would include a General Plan amendment from Office and Medium-High Density Residential to Public and a Zone Change from Office with a Historic Overlay (O-H) and Medium-High Density Residential (R-3) to Public Facility with a Historic Overlay (PF-H). The PF-H zone allows for development of a multi-level parking structure and non-profit theater, and deviations to otherwise applicable setback requirements and building height limits with Planning Commission approval. Commercial uses would be allowed as accessory uses of the parking and theater facilities. The project would also require a variance for the floor to area ratio to exceed 1.0 and maximum coverage to exceed 60 percent.

Discretionary Permits

The following approvals would be required for the project:

1. General Plan Amendment
2. Zone Change
3. Planning Commission Use Permit
4. Maximum Coverage Variance
5. Floor to Area Ratio Variance
6. Architectural Review

Probable Environmental Effects/Issues Scoped for EIR

Issue areas that may be determined to be potentially significant include:

- Aesthetics
- Cultural Resources
- Noise
- Transportation and Traffic

Issues Determined Not to be Significant under CEQA Thresholds of Significance include:

- Air Quality (with prescribed mitigation)
- Agriculture and Forest Resources
- Biological Resources (with prescribed mitigation)
- Geology and Soils (with prescribed mitigation)
- Greenhouse Gas Emissions
- Hydrology/Water Quality
- Hazards and Hazardous Materials (with prescribed mitigation)
- Land Use/Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Utilities/Service Systems

Development of a Reasonable Range of Alternatives

Factors determining alternative project configurations include considerations of project objectives, site suitability, economic viability, availability of infrastructure, General Plan consistency, and a proponent's control over alternative sites. The EIR will discuss the rationale for selection of alternatives that are feasible and therefore, merit in-depth consideration, and which are infeasible (e.g., failed to meet Project objectives or did not avoid significant environmental effects) and therefore rejected. Project alternatives include the following:

- Alternative 1: Same as the preferred project described above, except the 5,000 square feet of commercial space would be reduced to 2,500 square feet of commercial space and four residential units would be included
- Alternative 2: Same as the preferred project described above, except the Little Theatre would be replaced with 22 two-bedroom residential units
- No Project Alternative

These alternatives are general in nature since further environmental issue area analyses would be necessary before more specific project alternatives can be identified. The need for project redesign or unit reduction would be determined during the course of environmental review.

Public Scoping Meeting

A public scoping meeting has been scheduled to allow for any interested persons to supply input on issues to be discussed in the EIR:

Date: Wednesday, May 10, 2017

Time: 6:00 p.m.

Place: 990 Palm Street (City Council Chambers)

The meeting is an opportunity for City and consultant staffs to gather information from the public regarding the potential environmental impacts of the project that need to be evaluated in the EIR. It is not intended to be a hearing on the merits of the project. Therefore, members of the public should keep their comments focused on potential significant changes to the environment that may occur as a direct result of project development.

From: kirk reis [<mailto:k.reis1958@gmail.com>]
Sent: Wednesday, May 17, 2017 11:00 PM
To: Davidson, Doug <ddavidson@slocity.org>
Subject: Nipomo Street Parking Structure

My wife and I own Reis Family Mortuary which is directly across from the proposed structure facing Nipomo Street.

Our property starts at Dana Street and runs past Palm towards Brizolara. Palm Street actually runs into the driveway of our Residence.

We were not able to attend the meeting on May 10th, and have a concern that may or may not have been addressed at the meeting.

About 10 years ago I wrote a letter to city's to bring attention to the need for a 3 way stop sign at the intersection of Nipomo and Palm Streets. Several weeks later I received a letter back stating that a study was done and after reviewing all of the information staff concluded there was no danger to the public, that a stop sign was not needed and I was welcome to call and discuss any further concerns, which I did.

During our conversation, I explained that it was my opinion, that the study seemed to ignore the fact that there are no slow school signs, no crosswalks crossing Nipomo Street on either side of palm, that there is a handicap/rehab home, an elementary school, a middle school , a high school, a children's museum and a school bus stop which are effected by constant wheel chair and pedestrian vehicle traffic, especially on Farmers Market night or during special events downtown and in the Mission Plaza .

I explained to him that the window where my desk sits faces the intersection of Palm and Nipomo, and about several times every hour, I witness someone pulling out from the stop sign or stepping off the curb at Palm Street and nearly getting hit by oncoming traffic. The cars pulling out from Palm Street and pedestrians stepping off the curb have a limited view of oncoming traffic, which causes them to have to creep out into the oncoming traffic on Nipomo Street to see.

During funerals at our mortuary we have to position personnel in the street to stop or slow traffic down to avoid collisions because the traffic is traveling at a speed that is dangerous to those exiting our parking lot either by car or on foot.

One can only imagine how much worse that will be when the traffic increases once the parking structure is completed

I hope that a stop sign at that intersection is seriously being considered before someone gets seriously hurt or killed.

Thank you,

Sincerely,

Kirk & Wendy Reis

NATIVE AMERICAN HERITAGE COMMISSION

Environmental and Cultural Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone (916) 373-3710



June 1, 2017

Tim Bochum
City of San Luis Obispo
919 Palm Street
San Luis Obispo, CA 93401

RE: SCH# 2017051011; Palm Nipomo Parking Structure Project, City of San Luis Obispo; San Luis Obispo County, California

Dear Mr. Bochum:

The Native American Heritage Commission has received the Notice of Preparation (NOP) for Draft Environmental Impact Report for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code § 21000 et seq.), specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit. 14, § 15064.5 (b) (CEQA Guidelines Section 15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared. (Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd. (a)(1) (CEQA Guidelines § 15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a **separate category of cultural resources**, "tribal cultural resources" (Pub. Resources Code § 21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment (Pub. Resources Code § 21084.2). Please reference California Natural Resources Agency (2016) "Final Text for tribal cultural resources update to Appendix G: Environmental Checklist Form," <http://resources.ca.gov/ceqa/docs/ab52/Clean-final-AB-52-App-G-text-Submitted.pdf>. Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code § 21084.3 (a)). **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. § 800 et seq.) may also apply.

The NAHC recommends **lead agencies consult with all California Native American tribes** that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments. **Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.**

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a **lead agency** shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
 - a. A brief description of the project.
 - b. The lead agency contact information.
 - c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code § 21080.3.1 (d)).
 - d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code § 21073).
2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A **lead agency** shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code § 21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or environmental impact report. (Pub. Resources Code § 21080.3.1(b)).
 - a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18). (Pub. Resources Code § 21080.3.1 (b)).
3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
 - a. Alternatives to the project.
 - b. Recommended mitigation measures.
 - c. Significant effects. (Pub. Resources Code § 21080.3.2 (a)).
4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
 - a. Type of environmental review necessary.
 - b. Significance of the tribal cultural resources.
 - c. Significance of the project's impacts on tribal cultural resources.
 - d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code § 21080.3.2 (a)).
5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code § 21082.3 (c)(1)).
6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
 - a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
 - b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code § 21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
 - a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
 - b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code § 21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code § 21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code section 21084.3 (b). (Pub. Resources Code § 21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:
 - a. Avoidance and preservation of the resources in place, including, but not limited to:
 - i. Planning and construction to avoid the resources and protect the cultural and natural context.
 - ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
 - b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - i. Protecting the cultural character and integrity of the resource.
 - ii. Protecting the traditional use of the resource.
 - iii. Protecting the confidentiality of the resource.
 - c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
 - d. Protecting the resource. (Pub. Resource Code § 21084.3 (b)).
 - e. Please note that a federally recognized California Native American tribe or a nonfederally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code § 815.3 (c)).
 - f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code § 5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An environmental impact report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
 - a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
 - b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
 - c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code § 21082.3 (d)).

This process should be documented in the Cultural Resources section of your environmental document.

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires **local governments** to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code § 65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. **Tribal Consultation:** If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code § 65352.3 (a)(2)).
2. **No Statutory Time Limit on SB 18 Tribal Consultation.** There is no statutory time limit on SB 18 tribal consultation.
3. **Confidentiality:** Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code section 65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction. (Gov. Code § 65352.3 (b)).
4. **Conclusion of SB 18 Tribal Consultation:** Consultation should be concluded at the point in which:
 - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
 - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
 - a. If part or all of the APE has been previously surveyed for cultural resources.
 - b. If any known cultural resources have been already been recorded on or adjacent to the APE.
 - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
 - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. 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.
 - a. The final report containing site forms, site significance, and mitigation measures 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 public disclosure.

- b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.
- 3. Contact the NAHC for:
 - a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
 - b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
- 4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
 - a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
 - b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
 - c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

Please contact me if you need any additional information at gayle.totton@nahc.ca.gov.

Sincerely,



Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst

cc: State Clearinghouse



Palm-Nipomo Parking Structure Project

Initial Study

prepared by

City of San Luis Obispo

Public Works Department

919 Palm Street

San Luis Obispo, California 93401

prepared with the assistance of

Rincon Consultants

1530 Monterey Street, Suite D

San Luis Obispo, California 93401

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Appendices *(included on CD affixed to back cover)*

Appendix A	CalEEmod Air and Greenhouse Gas Emissions Estimates
Appendix B	Geotechnical, Geologic, and Hazardous Materials Assessment Report



Initial Study

1 Project Title

Palm Nipomo Parking Structure

2 Lead Agency Name and Address

City of San Luis Obispo
919 Palm Street
San Luis Obispo, CA 93401

3 Contact Person and Phone Number

Tim Bochum, Deputy Director, Transportation
(805) 781-7203

4 Project Location

The project site is a 1.4-acre property, located south of Palm Street, east of Nipomo Street, and north of Monterey Street. The property includes Assessor's Parcel Numbers (APN) 002-412-001, 002-412-002, 002-412-003, 002-412-004, 002-412-011, and 002-412-012. Figure 1 shows the regional location of the project, and Figure 2 shows the project site within the local context.

5 Project Sponsor's Name and Address

City of San Luis Obispo
Public Works Department
919 Palm Street
San Luis Obispo, CA 93401

6 Existing Setting

The project site is located south of Palm Street, east of Nipomo Street, and north of Monterey Street. The site is currently occupied by a City-owned surface parking lot, one detached garage, and five residential units (three single-family residences and one secondary unit adjacent to Palm Street that has two apartments). The project site is located within the City's Downtown Historic District.

7 General Plan Designation

Office: APNs 002-412-001, 002-412-002, 002-412-004, 002-412-011, and 002-412-012
Medium-High Density Residential: APN 002-412-003

Figure 1 Regional Location



Imagery provided by ESRI and its licensors © 2016.

★ Project Location

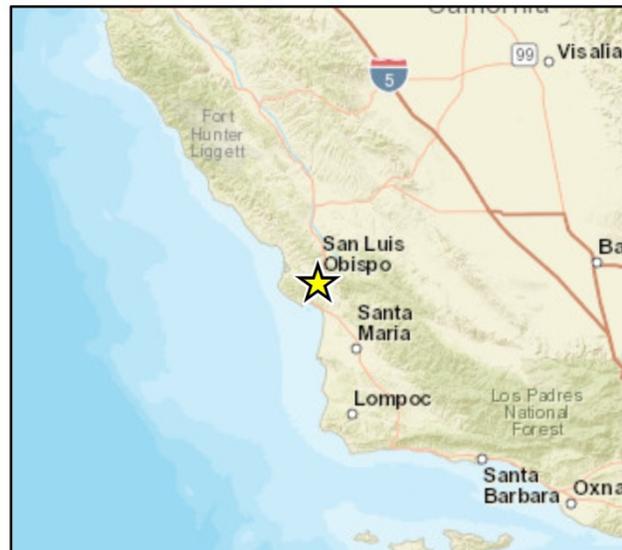


Fig 1 Regional Location



Figure 2 Project Location



Imagery provided by Google and its licensors © 2016.

Fig 2 Project Location

8 Zoning

Office with Historic Overlay (O-H): APNs 002-412-001, 002-412-002, 002-412-004, 002-412-011, and 002-412-012

Medium-High Density Residential (R-3): APN 002-412-003

9 Description of Project

The project would involve the construction of an above-ground five-level parking structure, non-profit theater, and commercial space. The parking structure would provide 400 to 445 parking spaces. Main vehicular access to the structure would be provided from Palm Street, with secondary access on Nipomo Street. There would be one lane for ingress and one lane for egress at each driveway. Vehicle access would not be provided from Monterey Street; however, a direct pedestrian connection would be provided from the structure to Monterey Street. Pedestrian access would also be provided to public sidewalks from each corner of the structure. The project would also include 5,000 square feet of commercial space on two levels fronting Nipomo Street. The parking structure's maximum height, excluding elevator towers, would be approximately 50 feet.

In addition, the San Luis Obispo Little Theatre would be relocated to the site, fronting Monterey Street adjacent to the parking structure. The Little Theatre would entail a three-story structure with a gross floor area of 23,841 square feet. The basement level would house a rehearsal area, workshop, and storage. The main level would be comprised of a main theater with 155 seats and a smaller theater with 100 reconfigurable seats, for a total of 255 seats. The third floor would include offices and a conference room. The project would include an entry plaza fronting Monterey Street, and improved landscaping near the sidewalks along Palm Street, Nipomo Street, and Monterey Street. The maximum height of the theater structure would be 43 feet. Figure 3 shows the proposed site plan.

The project would involve the removal of the existing 77 space surface parking lot and demolition or relocation of the existing five residential structures and detached garage. The project would involve a General Plan amendment to amend the General Plan Land Use Map from Office and Medium-High Density Residential to Public and a Zone Change to amend the Zoning Map from Office with a Historic Overlay (O-H) and Medium-High Density Residential (R-3) to Public Facility with a Historic Overlay (PF-H). It would also require the approval of a Use Permit by the Planning Commission to allow the multi-level parking structure and non-profit theater, as well as deviation to otherwise applicable setback requirements and building height limits. Office, retail, and residential uses would be allowed as accessory uses of the parking and theater facilities. In addition, the project would require variances for the floor to area ratio to exceed 1.0 and maximum coverage to exceed 60 percent.

Project alternatives include the following:

- **Alternative 1:** Same as the preferred project described above, except the 5,000 square feet of commercial space would be reduced to 2,500 square feet of commercial space and four residential units would be included
- **Alternative 2:** Same as the preferred project described above, except the Little Theatre would be replaced with 22 two-bedroom residential units



10 Required Approvals

The following approvals would be required for the project:

- **Planning Commission Use Permit** approval required for multi-level parking structure, non-profit theater, commercial space, and deviations to otherwise applicable setback requirement
- **General Plan Amendment** to Public Facility
- **Zone Change** to PF-H
- **Maximum Coverage Variance** to exceed 60 percent
- **Floor to Area Ratio Variance** to exceed 1.0
- **Architectural Review** by the Cultural Heritage Committee and the Architectural Review Commission of the proposed structures and site plan

11 Surrounding Land Uses and Setting

The area surrounding the site is urbanized, consisting of various land uses. Adjacent parcels to the northeast are zoned Medium-High Density Residential (R-3) and have existing residences developed on-site. Across Palm Street to the northwest is the Mission College Preparatory school athletic field, which is zoned Medium-High Density Residential (R-3). Across Nipomo Street to the west is the Reis Family Mortuary & Crematory, which is zoned Office with a Historic district overlay (O-H); residences zoned Medium-High Density Residential (R-3); and mixed commercial and residential suites zoned Downtown Commercial with a Historic District and Planned Development overlay (C-D-H-PD). Across Monterey Street to the south is the San Luis Obispo Children's Museum, which is zoned Public Facility with a Historic District overlay (PF-H), and residential units zoned Downtown Commercial with a Historic district and Special Considerations overlay (C-D-S-H).

12 Other Public Agencies Whose Approval is Required

Regional Water Quality Control Board – *National Pollutant Discharge Elimination System Permit*

Figure 3 Site Plan



Source: Watry Design, Inc. 2017



Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that is “Potentially Significant” or “Potentially Significant Unless Mitigation Incorporated” as indicated by the checklist on the following pages.

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forest Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input checked="" type="checkbox"/> Geology and Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Hazards and Hazardous Materials | <input type="checkbox"/> Hydrology / Water Quality |
| <input type="checkbox"/> Land Use/ Planning | <input type="checkbox"/> Mineral Resources | <input checked="" type="checkbox"/> Noise |
| <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input checked="" type="checkbox"/> Transportation / Traffic | <input type="checkbox"/> Utilities / Service Systems | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

Determination

Based on this initial evaluation:

- I find that the preferred project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the preferred project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the preferred project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the preferred project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the preferred project could have a significant effect on the environment, because all potential significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the preferred project, nothing further is required.



Signature

Tyler Corey

Printed Name

May 1, 2017

Date

Principal Planner

Title

The following table summarizes the environmental issue areas and work scope items that will be addressed in the Environmental Impact Report for the project.

Table 1 Issues for Further Analysis in Environmental Impact Report

Issue Area	Potentially Significant Impact	EIR Work Scope Item
Aesthetics	Degradation of the existing visual character or quality of the site and its surroundings	The project would increase the size and scale of development on the site, which is located in the historic district. The EIR shall evaluate the potential visual impacts of the project on the existing visual character and quality of the site and its surroundings. Recommendations shall be developed to reduce identified visual impacts. General design guidelines shall be identified to assist the City in terms of design features and elements of the project to assure visual compatibility with the surrounding area.
	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area	The EIR shall evaluate the new sources of light and glare from car headlights and area lighting. General design guidelines shall be identified to assist the City in terms of design and lighting features and elements of the project to assure that lighting and glare associated with the preferred project would be compatible with adjacent and surrounding uses.
Cultural Resources	Cause a substantial adverse change in the significance of a historical, archaeological, or tribal cultural resource	The EIR shall evaluate potential impacts to historic structures and cultural resources, as well as impacts to the historic district. The EIR will analyze impacts to these resources in further detail and recommend mitigation measures.
Noise	Exposure of persons to or generation of noise levels in excess of standards; substantial permanent increases in ambient noise levels above levels existing without the project	The project would be surrounded by noise sensitive uses, and the impact of project operations on ambient noise levels at sensitive receptors shall be evaluated in the EIR. Sound level measurements shall be taken on the project site and the level of significance shall be determined using the City's noise level thresholds. In addition, the project would generate traffic that would contribute to noise levels in the project area that could exceed City thresholds. The EIR shall quantify the increase in vehicle noise levels resulting from project-generated traffic at sensitive receptors along Palm Street, Nipomo Street and Monterey Street and determine the level of significance based on the City's noise level thresholds. The EIR shall identify any mitigation necessary to reduce significant noise impacts to less than significant levels.
	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels; result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project	The EIR shall quantify the level of construction noise based on anticipated construction equipment. The level of construction noise generated by the project shall be compared to the City's applicable noise level thresholds to determine the level of significance. The EIR shall identify any mitigation necessary to reduce significant temporary construction noise impacts to the extent feasible.
Transportation/ Traffic	Conflict with an applicable plan, ordinance or policy establishing a measure of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant	A traffic analysis shall be prepared for the EIR. The traffic analysis shall contain an evaluation of project impacts on study area roadway segments and intersections under both existing + project and cumulative + project conditions, as well as impacts related to overall vehicle miles traveled generated by the project. Impacts, including any potential secondary impacts from required circulation system



Issue Area	Potentially Significant Impact	EIR Work Scope Item
	components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit; conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways; conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities	improvements, will be described and mitigation measures shall be identified as necessary.

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Environmental Checklist

1 Aesthetics

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Substantial adverse effect on a scenic vista	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantial damage to scenic resources, including but not limited to trees, rock outcroppings, and historic buildings along a state scenic highway	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially degrade the existing visual character or quality of the site and its surroundings	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Setting

San Luis Obispo is located on predominantly undulating topography, with low hillsides rising from drainages and creeks. The overall landform of the City and its surroundings is generally defined by the convergence of the Chorro and the Los Osos Valleys. A series of low, visually distinct mountain peaks, such as Bishop Peak and Cerro San Luis, separate the two valleys and provide a scenic focal point for much of the City. The Cuesta Ridge and Santa Lucia Mountains border the Chorro Valley to the north and east, while the Irish Hills border the Los Osos Valley to the southwest. The Santa Lucia Mountains and Irish Hills are the visual limits of this region and are considered the scenic backdrop for much of the City. The visual boundaries to the south and southeast are distant and are defined by low hills rising up from valleys. Development in the region occurs predominantly at the lesser elevations and on the low hills.

The project site is located in the northwestern portion of the downtown planning area. The visual environment surrounding the site is urbanized, consisting of various land uses. These uses include, residential units, commercial and mixed-use development, the Mission College Preparatory school athletic field, and the San Luis Obispo Children’s Museum. The project site and adjacent parcels to the east, west, and south are located within the City’s Historic Overlay. The site currently contains urban development including a surface parking lot, one detached garage, and five residential units (three single-family residences and one secondary unit adjacent to Palm Street that has two apartments). The site is not located within a City General Plan designated scenic vista or along a designated scenic highway; however the site is located near U.S. Highway 101, which is eligible for scenic highway designation.

Discussion

a. Would the project have a substantial adverse effect on a scenic vista?

The site is not located in a City General Plan designated scenic vista. Neither the preferred project nor Alternatives 1 or 2 would have a substantial adverse effect on a scenic vista. Impacts would be **less than significant**.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings in a state scenic highway?

The nearest highway is U.S. Highway 101, designated as an Eligible State Scenic Highway by the California Department of Transportation. Due to the height of the parking structure and theater, the project may be visible from Highway 101; however, this segment has not been designated as a state scenic highway; thus, neither the preferred project nor Alternatives 1 or 2 would damage scenic views. Therefore, impacts would be **less than significant**.

c. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

The project site is located in the City's Downtown Planning area, adjacent to the Downtown Core (City of San Luis Obispo 2014). It is also located in a Historical Overlay district. The site currently contains urban development including a City-owned surface parking lot, one detached garage, and five residential units (three single-family residences and one secondary unit adjacent to Palm Street that has two apartments). The preferred project and alternatives would involve the removal of the existing parking lot, detached garage, and residential structures, and the construction of a five-story parking structure, commercial space, and theater or residential units. Therefore, while the project and project alternatives would be visually compatible with the existing urban environment of the site and the surrounding area, they would increase the size and scale of development and change the uses on the project site. The project would require a General Plan amendment/Zone Change to Public/Public Facility with a Historic Overlay (PF-H). It would also require the approval of a Use Permit by the Planning Commission to allow the multi-level parking structure and non-profit theater, as well as deviation to otherwise applicable setback requirements and building height limits. Office, retail, and residential uses would be allowed as accessory uses of the parking and theater facilities. In addition, the project would require variances for the floor to area ratio to exceed 1.0 and maximum coverage to exceed 60 percent. The increase in size and scale of development on the project site and the sensitivity of the project site within the Downtown Historic District could result in potential impacts to the visual character of the site. The change to the site's visual character is a **potentially significant impact** and will be analyzed further in the EIR.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The preferred project and Alternatives 1 and 2 would introduce new lighting from car headlights and for parking and pedestrian ways and lighting for the commercial space, theater, and/or residential units. Such lighting could create new sources of light or glare. While the project site is located in an urban area where substantial nighttime lighting currently exists, the increased height of the proposed structure and the proximity to residential uses could result in light spillover and additional glare that could result in significant environmental effects. Therefore, the change to the site's lighting is a **potentially significant impact** and will be analyzed further in the EIR.



2 Agriculture and Forest 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 Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land. This includes the Forest and Range Assessment Project and the Forest Legacy Assessment Project, along with the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use or a Williamson Act contract	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with existing zoning for or cause rezoning of forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The San Luis Obispo Area Plan (County of San Luis Obispo 2014) designates the Agriculture land use category as areas that have existing or potential agricultural production capability. A large portion of the greater San Luis Obispo area is designated for agriculture, which almost entirely surrounds the urbanized area within City limits. Because the project site is located within City limits, the San Luis Obispo Area Plan does not provide designations for the project site. The project site is not located on an existing or

potential agricultural production area as provided for in the City's zoning code (San Luis Obispo Land Use Element 2014).

Discussion

- a. *Would the project convert Prime Farmland, Unique Farmland, 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?*
- b. *Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?*
- c. *Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?*
- d. *Would the project result in the loss of forest land or conversion of forest land to non-forest use?*
- e. *Would the project involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?*

The project site is currently developed with a surface parking lot and residential structures. The project site does not contain any agricultural resources, land identified for potential agricultural production, lands designated as or zoned for agricultural use, or lands under a Williamson Act contract. Furthermore, no timberland land exists on the project site. Therefore, **no impact** to agricultural resources or forest land would occur as a result of the preferred project or Alternatives 1 or 2.



3 Air Quality

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Conflict with or obstruct implementation of the applicable air quality plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Expose sensitive receptors to substantial pollutant concentrations	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Create objectionable odors affecting a substantial number of people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The City of San Luis Obispo falls within the jurisdiction of the San Luis Obispo County Air Pollution Control District (SLOAPCD) and is located within the South Central Coast Air Basin. SLOAPCD monitors air pollutant levels to assure that air quality standards are met, and if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the air basin is classified as being in “attainment” or as “non-attainment.” SLOAPCD is in non-attainment for the 24-hour state standard for particulate matter (PM₁₀) and the eight hour state standard for ozone (O₃) (SLOAPCD 2015).

The major sources of PM₁₀ in the SCCAB are agricultural operations, vehicle dust, grading, and dust produced by high winds. Additional sources of particulate pollution include diesel exhaust; mineral extraction and production; combustion products from industry and motor vehicles; smoke from open burning; paved and unpaved roads; condensation of gaseous pollutants into liquid or solid particles; and wind-blown dust from soils disturbed by demolition and construction, agricultural operations, off-road vehicle recreation, and other activities. Ozone is a secondary pollutant that is not produced directly by a source, but rather is formed by a reaction between nitrogen oxides (NO_x) and reactive organic gases (ROGs) in the presence of sunlight. Reductions in ozone concentrations are dependent on reducing the amount of these precursors. In the SCCAB, the major sources of ROGs are motor vehicles, organic solvents, the petroleum industry, and pesticides. The major sources of NO_x are motor vehicles, public utility power generation, and fuel combustion by various industrial sources (SLOAPCD 2015).

Construction Emissions Thresholds

The SLOAPCD has developed specific daily and quarterly numeric thresholds that apply to projects within the SCCAB. Daily thresholds are for projects that would be completed in less than one quarter (90 days). The SLOAPCD’s quarterly construction thresholds are applicable to the project because construction would last for more than one quarter. Thresholds are based on guidance in the SLOAPCD’s CEQA Air Quality Handbook (2012). These include:

ROG and NO_x Emissions

- **Quarterly – Tier 1:** For construction projects lasting more than one quarter, exceedance of the 2.5 tons per quarter threshold requires Standard Mitigation Measures and Best Available Control Technology (BACT) for construction equipment. If implementation of the Standard Mitigation and BACT measures cannot bring the project below the threshold, off-site mitigation may be necessary; and
- **Quarterly – Tier 2:** For construction projects lasting more than one quarter, exceedance of the 6.3 tons per quarter threshold requires Standard Mitigation Measures, BACT, implementation of a Construction Activity Management Plan (CAMP), and off-site mitigation.

Diesel Particulate Matter (DPM) Emissions

- **Quarterly – Tier 1:** For construction projects lasting more than one quarter, exceedance of the 0.13 tons per quarter threshold requires Standard Mitigation Measures, BACT for construction equipment; and
- **Quarterly – Tier 2:** For construction projects lasting more than one quarter, exceedance of the 0.32 ton per quarter threshold requires Standard Mitigation Measures, BACT, implementation of a CAMP, and off-site mitigation.

Fugitive Particulate Matter (PM₁₀), Dust Emissions

- **Quarterly:** Exceedance of the 2.5 tons per quarter threshold requires Fugitive PM₁₀ Mitigation Measures and may require the implementation of a CAMP.

Operational Emissions Thresholds

SLOAPCD’s long-term operational emission thresholds are summarized in Table 2.

Table 2 SLOAPCD Operational Emissions Significance Thresholds

Pollutant	Daily Threshold (lbs/day)	Annual Threshold (tons/year)
ROG + NO _x (combined) ¹	25	25
Diesel Particulate Matter (DPM) ¹	1.25	–
Fugitive Particulate Matter (PM ₁₀), Dust	25	25
CO	550	–

Source: SLOAPCD 2012

¹ SLOAPCD specifies that CalEEMod winter emission outputs be compared to operational thresholds for these pollutants.



Discussion

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

According to the SLOAPCD CEQA Air Quality Handbook (2012), project-level environmental reviews that may require consistency analysis with the Clean Air Plan and Smart/Strategic Growth Principles adopted by lead agencies include: subdivisions, large residential developments and large commercial/industrial developments. Neither the preferred project nor Alternatives 1 or 2 is a subdivision or large residential project, and would not be considered a large commercial or industrial development according to the screening criteria set forth in the SLOAPCD CEQA Air Quality Handbook. Therefore, neither the preferred project nor Alternatives 1 or 2 has the potential to be inconsistent with the Clean Air Plan or Smart/Strategic Growth Principles.

In addition, the project is considered infill development located within an existing urban area, which are land use strategies supported by the SLOAPCD Clean Air Plan (2001) policies, including:

- Cities and unincorporated communities should be developed at higher densities that reduce trips and travel distances and encourage the use of alternative forms of transportation
- Urban growth should occur within the urban reserve lines of cities and unincorporated communities (Clean Air Plan L-1 Planning Compact Communities)

The preferred project and Alternatives 1 and 2 would have **no impact** with respect to a conflict with or obstruction to implementation of the applicable air quality plan.

b. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

c. Would the project 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)?

d. Would the project expose sensitive receptors to substantial pollutant concentrations?

As of September 2011, SLOAPCD recommends the use of the most recent version of California Emissions Estimator Model (CalEEMod) (version 2016.3.1) to calculate construction and operational emissions of a project. The CalEEMod results for the preferred project and Alternatives 1 and 2 can be found in Appendix A. The emissions model for the preferred project was based on build out of the proposed 445 parking space structure, 255 seat theater, and 5,000 square feet of commercial space. Alternative 1 was based on build out of the proposed 445 parking space structure, 255 seat theater, 2,500 square feet of commercial space, and four residential units. Alternative 2 was based on build out of the 445 parking space structure, 5,000 square feet of commercial space, and 22 two bedroom residential units. Trip rates for the commercial space, parking structure, and Little Theatre were obtained from the Traffic Study prepared by Central Coast Transportation Consulting (2017). Default trip rates for the residential units were obtained from CalEEMod. The emissions model for the preferred project and Alternatives 1 and 2 assumes a maximum area of disturbance of 1.4 acres (the total size of the project site). In addition, it assumes a net 5,700 cubic yards of soil would be exported from the site.

Construction Impacts

Construction activities would generate fugitive dust particles, ozone precursors, and diesel exhaust that could result in an increase in criteria pollutants and could also contribute to the existing San Luis Obispo County nonattainment status for ozone and PM₁₀. Sensitive receptors near the project site include adjacent residences to the south and east, the Mission College Preparatory School athletic field to the

north, residences across Nipomo Street to the west, and residences and the San Luis Obispo Children’s Museum to the south. Table 3 summarizes the estimated project emissions generated from construction activities. Maximum quarterly emissions are shown in Table 3 (see Appendix A for complete CalEEMod results), and compared to the applicable SLOAPCD construction emissions thresholds Table 3 also shows estimated construction emissions associated with Alternatives 1 and 2 to the project.

Table 3 Palm Nipomo Parking Structure Quarterly Construction Emissions

	ROG and NO _x (combined) ¹	Fugitive PM ₁₀ (dust)	DPM ²
Preferred Project Construction Emissions	0.94 tons/quarter	0.03 tons/quarter	0.07 tons/quarter
Alternative 1 Construction Emissions	0.94 tons/quarter	0.03 tons/quarter	0.07 tons/quarter
Alternative 2 Construction Emissions	0.94 tons/quarter	0.03 tons/quarter	0.07 tons/quarter
SLOAPCD Significance Threshold	2.5 tons/quarter (Tier 1)	2.5 tons/quarter (Tier 1)	0.13 tons/quarter (Tier 1)
Threshold Exceeded?	No	No	No

¹ The combined ROG and NO_x emissions were derived from the rolling maximum quarterly emissions for “ROG + NO_x” from CalEEMod.

² The DPM estimations were derived from the “PM₁₀ Exhaust” and “PM_{2.5} exhaust” output from CalEEMod as recommended by SLOAPCD. This estimation represents a worst case scenario because it includes other PM₁₀ exhaust other than DPM. See Appendix A for CalEEMod software program output.

Quarterly emissions for Fugitive PM₁₀ and DPM were calculated by dividing maximum annual construction emissions from CalEEMod by 4, since construction activities would extend for a duration exceeding 90 days, as recommended by SLOAPCD.

As shown in Table 3, the preferred project would not exceed SLOAPCD quarterly construction emissions for ROG and NO_x, PM₁₀, or DPM. Alternatives 1 and 2 would result in similar construction emissions to the preferred project, and would not exceed applicable SLOAPCD quarterly construction emissions thresholds.

In accordance with the standards of the SLOPACD CEQA Handbook, standard mitigation measures are required because sensitive receptors (Mission College Preparatory Academy, existing residential units and San Luis Obispo Children’s Museum) are located within 1,000 feet of the project site and because the SCCAB is in non-attainment for PM₁₀. Accordingly, Mitigation Measures AQ-1 and AQ-2 would be required to reduce fugitive dust, ozone precursors, and diesel particulate matter emissions from the preferred project and Alternatives 1 and 2. Construction impacts would be **potentially significant unless mitigation is incorporated**.

Operational Impacts

The project and alternatives would result in an increase in vehicle trips that would generate new criteria pollutant emissions. In addition, operation of the project and alternatives would result in ongoing emissions associated with natural gas use and area sources, such as landscaping, consumption of consumer products, and off gassing from architectural coatings.

Table 4 shows the daily and annual operational emissions associated with the preferred project and Alternatives 1 and 2 (see Appendix A for complete CalEEMod results and assumptions), compared to the applicable SLOAPCD operational emissions thresholds. Operational emissions from the preferred project and Alternatives 1 and 2 would not exceed the applicable SLOAPCD operational emissions thresholds.



Table 4 Palm Nipomo Parking Structure Operational Emissions Comparison

	ROG and NO _x (combined)	Fugitive PM ₁₀ (dust)	DPM ¹	CO
Preferred Project Daily Emissions	6.2 lbs/day	2.0 lbs/day	0.1 lbs/day	11.1 lbs/day
Alternative 1 Daily Emissions	6.2 lbs/day	1.9 lbs/day	0.1 lbs/day	11.1 lbs/day
Alternative 2 Daily Emissions	3.4 lbs/day	1.2 lbs/day	0.1 lbs/day	7.2 lbs/day
SLOAPCD Daily Threshold	25 lbs/day	25 lbs/day	1.25 lbs/day	550 lbs/day
Threshold Exceeded?	No	No	No	No
Preferred Project Annual Emissions	0.8 tons/year	0.2 tons/year	0.1 tons/year	1.3 tons/year
Alternative 1 Annual Emissions	0.8 tons/year	0.2 tons/year	0.1 tons/year	1.4 tons/year
Alternative 2 Annual Emissions	0.6 tons/year	0.2 tons/year	0.1 tons/year	1.6 tons/year
SLOAPCD Annual Threshold	25 tons/year	25 tons/year	n/a	n/a
Threshold Exceeded?	No	No	n/a	n/a

¹ The DPM estimations were derived from the “PM₁₀ Exhaust” and “PM_{2.5} exhaust” output from CalEEMod as recommended by SLOAPCD. This estimation represents a worst case scenario because it includes other PM₁₀ exhaust other than DPM. CalEEMod – use winter operational emission data to compare to operational thresholds.

As shown in Table 4, area source and operational emissions associated with the preferred project and Alternative 1 and 2 would not exceed SLOAPCD thresholds for ROG, NO_x, CO, PM₁₀, or DPM. Therefore, neither the preferred project nor the alternatives exceed applicable SLOAPCD operational air quality standards or contribute to an existing air quality violation. Operational emissions associated with the preferred project and Alternatives 1 and 2 would be **less than significant**.

Sensitive Receptors

While the estimated construction emissions associated with the preferred project and Alternatives 1 and 2 would be below the SLOAPCD thresholds and would not introduce new hazardous air pollutants to the area, in accordance with the standards of the SLOAPCD CEQA Handbook, standard mitigation measures are required because sensitive receptors (Mission College Preparatory Academy, existing residential units and San Luis Obispo Children’s Museum) are located within 1,000 feet of the project site and because the South Central Coast Air Basin is in nonattainment for PM₁₀. Accordingly, Mitigation Measures AQ-1 and AQ-2 would be required for the preferred project and Alternatives 1 and 2 to reduce fugitive dust, ozone precursors, and diesel particulate matter emissions. Therefore, impacts to sensitive receptors in the project vicinity would be **potentially significant unless mitigation is incorporated**.

Mitigation Measures

The following mitigation measures are required to reduce construction emissions associated with the preferred project or Alternative 1 or 2 and to reduce impacts to sensitive receptors.

AQ -1 Fugitive Dust Control Measures. Construction projects shall implement the following dust control measures so as to reduce PM₁₀ emissions in accordance with SLOAPCD requirements.

- Reduce the amount of the disturbed area where possible;
- Water trucks or sprinkler systems shall be used during construction in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency shall be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water shall be used whenever possible;

- All dirt stock pile areas shall be sprayed daily as needed;
- Permanent dust control measures identified in the approved project revegetation and landscape plans shall be implemented as soon as possible following completion of any soil disturbing activities;
- Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading shall be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established;
- All disturbed soil areas not subject to revegetation shall be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the SLOAPCD;
- All roadways, driveways, sidewalks, etc. to be paved shall be completed as soon as possible after grading unless seeding or soil binders are used;
- Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site;
- All trucks hauling dirt, sand, soil, or other loose materials are to be covered or shall maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with California Vehicle Code Section 23114;
- Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site;
- Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water shall be used where feasible;
- All of these fugitive dust mitigation measures shall be shown on grading and building plans; and
- The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20 percent opacity, and to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the SLOAPCD Compliance Division prior to the start of any grading, earthwork or demolition.

AQ-2(a) Standard Control Measures for Construction Equipment. The following standard air quality mitigation measures shall be implemented during construction activities at the project site:

- Maintain all construction equipment in proper tune according to manufacturer's specifications;
- Fuel all off-road and portable diesel powered equipment with ARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road);
- Use diesel construction equipment meeting ARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State Off-Road Regulation;
- Use on-road heavy-duty trucks that meet the ARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the State On-Road Regulation;



- Construction or trucking companies with fleets that do not have engines in their fleet that meet the engine standards identified in the above two measures (e.g. captive or NOX exempt area fleets) may be eligible by proving alternative compliance;
- All on and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the 5 minute idling limit;
- Diesel idling within 1,000 feet of sensitive receptors is not permitted;
- Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors;
- Electrify equipment when feasible;
- Substitute gasoline-powered in place of diesel-powered equipment, where feasible; and
- Use alternatively fueled construction equipment on-site where feasible, such as compressed natural gas, liquefied natural gas, propane or biodiesel.

AQ-2(b) Best Available Control Technology (BACT) for Construction Equipment. The following BACT for diesel-fueled construction equipment shall be implemented during construction activities at the project site, where feasible:

- Further reducing emissions by expanding use of Tier 3 and Tier 4 off-road and 2010 on-road compliant engines where feasible;
- Repowering equipment with the cleanest engines available; and
- Installing California Verified Diesel Emission Control Strategies, such as level 2 diesel particulate filters. These strategies are listed at:
www.arb.ca.gov/diesel/verdev/vt/cvt.htm

AQ-2(c) Architectural Coating. To reduce ROG and NO_x levels during the architectural coating phase, low or no VOC-emission paint shall be used with levels of 50 g/L or less.

e. Would the project create objectionable odors affecting a substantial number of people?

The SLOAPCD CEQA Handbook (2012) identifies typical land uses that have the potential to result in increases in odorous emissions and provides recommendations for siting new sensitive land uses in close proximity to these uses. None of the uses proposed under the preferred project or alternatives, including a parking garage, commercial, theater, or residential uses, are listed as uses project that typically create objectionable odors. Therefore, neither the preferred project nor the alternatives would create objectionable odors affecting a substantial number of people. **No impact** related to objectionable odors from the project or Alternatives 1 or 2 would result.

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4 Biological Resources

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
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 Wildlife or U.S. Fish and Wildlife Service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Have a substantial adverse effect on 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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

This region of San Luis Obispo County falls within the Outer South Coast Ranges geographic subdivision of California. The Outer South Coast Ranges subdivision contains an array of vegetation community types that range from southern oak forest, blue-oak/foothill-pine woodland and chaparral to grasslands and agricultural/urbanized areas. The Outer South Coast Ranges subdivision is part of the larger South Coast

Ranges geographic sub-region, which is a component of the even larger Central Western California physiographic area. The section of the state that is designated as CW occurs within the cismontane side of California, which is more generally referred to as the California Floristic Province (CA-FP – Hickman 1993).

The federal Migratory Bird Treaty Act (16 United States Code Section 703-711) protects all migratory birds, their nests and eggs against take, possession, or destruction. The MBTA was enacted in 1918 and is enforced by the U.S. Fish and Wildlife Service. Abiding by the MBTA requires that active nests be avoided.

Discussion

- a. *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?*

The project site is currently developed with a surface parking lot, one detached garage, and five residences, and is surrounded by urban land uses. The site does not provide suitable habitat for wildlife or sensitive plant or animal species (City of San Luis Obispo 2006; California Natural Diversity Database 2016). Thus, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service, the preferred project and Alternatives 1 and 2 would have **no impact**.

- b. *Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

The project site is currently developed with a surface parking lot, one detached garage, and five residences, and is surrounded by urban land uses. The site does not contain any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. There would be **no impact** to any riparian habitat or other sensitive natural community from the preferred project or Alternatives 1 or 2.

- c. *Would the project have a substantial adverse effect on 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?*

The project site is currently developed with a surface parking lot, one detached garage, and five residences, and is surrounded by urban land uses. The site does not contain federally protected wetlands as defined by Section 404 of the Clean Water Act and therefore would not have a substantial adverse effect on such resources. There would be **no impact** to federally protected wetlands.

- d. *Would the project 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?*

The project site is currently developed with a surface parking lot, one detached garage, and five residences, and is surrounded by urban land uses. The site does not provide suitable habitat for wildlife and the surrounding urban uses would act as barriers to wildlife movement. It is not located in any wildlife corridors or potential wildlife corridors identified within the City's General Plan Conservation and Open Space Element (City of San Luis Obispo 2006). However, trees on the site may support nesting birds protected under the Migratory Bird Treaty Act. The removal of trees and general construction activity may affect protected nesting birds. Therefore, Mitigation Measure BIO-1 is required for the preferred project



and Alternatives 1 and 2 to protect nesting birds. Impacts to migratory bird species would be **potentially significant unless mitigation incorporated**.

Mitigation Measure

The following mitigation measure, and compliance with Migratory Bird Treaty Act and California Department of Fish and Wildlife requirements, would be required for the preferred project or Alternative 1 or 2 to reduce impacts to nesting birds to a less than significant level.

BIO-1 Nesting Bird Protection. To avoid disturbance of nesting and special-status birds, activities related to the project, including, but not limited to, vegetation removal, ground disturbance, and construction and demolition shall occur outside of the bird breeding season (typically February through August in the project region). If construction must begin within the breeding season, then a pre-construction nesting bird survey shall be conducted no more than 3 days prior to initiation of ground disturbance and vegetation removal activities. The nesting bird pre-construction survey shall be conducted within the Project Boundary, including a 300-foot buffer (500-foot for raptors), on foot, and within inaccessible areas (i.e., private lands) afar using binoculars to the extent practical. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in the area. If nests are found, an avoidance buffer (which is dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site) shall be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary. All construction personnel shall be notified as to the existence of the buffer zone and to avoid entering the buffer zone during the nesting season. No ground disturbing activities shall occur within this buffer until the avian biologist has confirmed that breeding/nesting is completed and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Conservation and Open Space Element has a policy that pertains to significant trees. Section 7.5.1 states that significant trees that are making substantial contributions to the natural habitat or urban landscape based on their species, size or rarity, shall be protected. The project site currently includes a large oak tree. This tree has the potential to be recognized as a “significant tree” by the City Council Tree Committee because it may potentially be recognized as a native tree and/or because of its size, historical significance, etc. as determined by the City Council’s Tree Committee. Current project design includes the preservation of the identified oak tree on the southeastern edge of the site as well as existing trees on the southern corner where Nipomo Street and Monterey Street converge. If any existing trees on the site were to be identified as a ‘significant tree,’ and the project were to determine the tree would need to be destroyed, removal of the tree would be subject to criteria and mitigation requirements set forth in the City’s Conservation and Open Space Element, Section 8.6.3. With existing city ordinances and preservation of the large oak tree on site, the conflicts with local policies or ordinances would be **less than significant** for the preferred project and Alternatives 1 and 2.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The project site does not occur within an area covered by an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state Habitat Conservation Plan (California Department of Fish and Game 2016). The project site does not occur within the designated Greenbelt Zone for the City. **No impact** would occur.

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5 Cultural Resources

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Disturb any human remains, including those interred outside of dedicated cemeteries	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code §21074	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Applied Earthworks prepared a Cultural Resources Study in 2011. The 2011 investigation included a records search, archival and historical research, field survey of the property, predictive modeling of archaeological resources, evaluation of any potentially significant historic structures on the property, and assessment of potential impacts to the surrounding Downtown Historic District. This section is based on the information and findings of this report.

Setting

According to the City’s Historic Preservation Program Guidelines (2010), archaeological evidence demonstrates that Native American groups (including Chumash) have inhabited the Central Coast since as early as 10,000 B.C. The City of San Luis Obispo is located within the area historically occupied by the Obispeño Chumash, the northernmost of the Chumash people of California. The earliest evidence of human occupation in the region comes from archaeological sites along the coast.

The area of San Luis Obispo became colonized by the Spanish Incursion initially in 1542, with the first official settlement on Chumash Territory occurring in 1772, when the Mission San Luis Obispo de Tolosa was established. Late in the 19th Century, San Luis Obispo became a stop on the Southern Pacific Railroad, closing the gap between Los Angeles and San Francisco. The railroad brought industry to the region and accelerated the growth of the community. Cultural and historic resources from each period still shape the setting of San Luis Obispo today.

The project site is located within the Historic Overlay in the downtown region of San Luis Obispo. It is also recognized as a Cultural Facilities Area (Land Use Element 2014).

Discussion

- a. *Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?*

The project site is currently developed with a paved parking lot, five residences, and a detached garage. The Cultural Resource Survey determined that residences at 633 and 633 ½ are not located within the Downtown Historic Preservation District nor are the structures considered historic or eligible to be designated as historic. However, the Cultural Resources Inventory determined that the two residences, located at 610 and 614 Monterey Street, are contributors to the Downtown Historic District and provide essential continuity along a historic streetscape. The current project design includes the removal or demolition of these two historically contributing residences. In addition, the detached garage on the 610 Monterey Street property would be demolished as part of the preferred project and alternatives, which is a contributing element to the historic district. Impacts to these historic resources are **potentially significant**, and will be further analyzed in an EIR.

- b. *Would the project cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?*
- c. *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature*
- d. *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

According to the 2011 Cultural Resources Inventory Report, subsurface archaeological deposits exist throughout the city, including areas adjacent to the project site. Archaeological features in the general area, and overall site integrity is anticipated to be good. Three archeological sites have been identified previously within or immediately adjacent to the current project area. In addition, archaeological investigations for a project approximately 1/8 mile east of the project site found significant Native American deposits present along a long stretch of Palm Street on the side opposite the mission; it is unclear whether that deposit extends into the current project area. The project site is currently developed with a surface parking lot and residential structures. According to the 2011 Cultural Resources Inventory Report, however, because only six structures and the surface lot have ever existed on the project site, it is quite likely that any subsurface cultural remains are intact. Therefore, ground disturbing construction activities have the potential to encounter or disturb undiscovered archaeological resources or human remains. If encountered, such resources could be damaged or destroyed. Adherence to Section 7050.5(b) of the California Health and Safety Code would protect any previously unidentified buried human remains. In addition, the procedures outlined in CEQA Section 15064.5 (d) and (e) would need to be followed if the remains are determined to be Native American. Impacts to such resources from implementation of the project would be **potentially significant**, and will be analyzed in the EIR.

- e. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?*

The project site is located within an established urban area and is currently developed. Tribal cultural resources can include sites, features, places, cultural landscapes, sacred places and objects with cultural value to a California Native American tribe. Though no known tribal cultural resources have been identified on the project site as described by Public Resources Code Section 21074.a(1), the project may cause substantial adverse change to historic residences along Monterey Street pursuant to Section 21084.1, thus impacts to a tribal cultural resource are **potentially significant**, and will be further analyzed in the EIR.



6 Geology and Soils

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Expose people or structures to potentially substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1. 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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Strong seismic ground shaking	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Seismic-related ground failure, including liquefaction	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Landslides	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Be located on a geologic unit or soil that is made unstable as a result of the project, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 1-B of the <i>Uniform Building Code</i> , creating substantial risks to life or property	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

A Geotechnical, Geologic, and Hazardous Materials Assessment (Geotechnical Report) was prepared for the project site by Earth Systems Pacific in 2011 (Appendix B). The purpose of this study was to assess the major geotechnical issues that could potentially affect the project by providing information regarding general site characteristics and identification of geotechnical characteristics that could represent a conflict to development.

Setting

San Luis Obispo is located within the Coast Range Geomorphic Province, which extends along the coastline from central California to Oregon. This region is characterized by extensive folding, faulting, and fracturing of variable intensity. In general, the folds and faults of this province comprise the pronounced northwest trending ridge-valley system of the central and northern coast of California. There are no known fault lines on the site or in the immediate vicinity.

The Los Osos, Hosgri, and San Andreas faults are considered to be the most significant regionally active faults that could affect the project site during its anticipated lifespan. The closest active fault to the site is the Los Osos Fault which lies approximately 2.5 miles southwest. At this distance, there is only a very low potential for ground rupture to occur on site due to nearby active faults (Earth Systems Pacific 2011). The City is in Seismic Zone 4, a seismically active region of California and strong ground shaking should be expected during the life of proposed structures. Structures must be designed in compliance with seismic design criteria established in the Uniform Building Code and City Codes.

The site is relatively flat with no significant slopes on or immediately adjacent to the site. The site is not subject to geological hazards including landslides and slope instability (Earth Systems Pacific 2011). Based on the Geotechnical Report, the site is generally suitable for development. The soils consist of alluvial sediments overlying bedrock, with a potential for expansion. The soils are comprised of laterally discontinuous zones of sandy clay, clay, and clayey gravel extending to depths of 25 to 40 feet below the surface. The consistency of the clay soils is medium to very hard. The alluvium is underlain by weak to moderately strong shale bedrock of the Franciscan Formation. The subsurface clayey soils contain interbedded layers of sand.

Discussion

- a.1. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving 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?*
- a.2. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?*

Although no faults have been mapped across the project site, seismic events caused by active and potentially active faults in the region could result in seismic ground shaking on-site. The City, along with all of Southern California and the Central Coast, is within Seismic Zone 4 and subject to seismic ground shaking from faults in the region. A seismic hazard cannot be completely avoided in these regions. However, effects can be minimized by implementing requirements specified in the California Building Code (incorporates the Uniform Building Code) and the California Division of Mines and Geology Guidelines for Evaluating and Mitigating Seismic Hazards in California, Special Publication 117 (revised 2008), which includes design and construction requirements related to fire safety, life safety, and structural safety. Compliance with existing building standards would ensure impacts associated with the preferred project and Alternatives 1 and 2 remain **less than significant**.

- a.3. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?*

The Geotechnical Report prepared for the project site determined that the potential for liquefaction on-site is very low to none, due to the density of the clay and granular soils, as well as the discontinuous nature of the potentially liquefiable layers (Earth Systems Pacific 2011). Therefore, impacts associated with the preferred project and Alternatives 1 and 2 would be **less than significant**.



a.4. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

According to the City's General Plan Safety Element (2012), the project site is not located in an area that would be subject to high or moderate potential for landslides. Furthermore, the Geotechnical Report found the potential for landslides or slope instability on-site to be very low (Earth Systems Pacific 2011). Therefore, impacts associated with the preferred project and Alternatives 1 and 2 would be **less than significant**.

b. Would the project result in substantial soil erosion or the loss of topsoil?

The soils on the project site are classified as Los Osos-Diablo complex soils, with 5-9 percent slopes. This soil type is considered well drained and has a low to moderate susceptibility to erosion (Natural Resources Conservation Service 2012). The project site gently slopes toward the northwest and subsurface water was encountered at depths ranging from 23 to 34 feet (Earth Systems Pacific 2011). Both temporary construction impacts and long-term operational impacts are discussed below.

Construction Impacts

The project would require a National Pollution Discharge Elimination System General Permit for Storm Water Discharges associated with construction activities because the project would involve clearing, grading, and disturbances to the ground, such as stockpiling, or excavation that results in soil disturbances of one or more acres of total land area. Under the conditions of the permit, the City would be required to eliminate or reduce non-storm water discharges to waters of the nation, develop and implement a Storm Water Pollution Prevention Plan (SWPPP) for project construction activities, and perform inspections of the storm water pollution prevention measures and control practices to ensure conformance with the SWPPP. Compliance with the National Pollution Discharge Elimination System permit would ensure that construction-related erosion impacts associated with the preferred project and Alternatives 1 and 2 would be **less than significant**.

Operational Impacts

The soil type on-site (Los Osos-Diablo complex soils) is considered well drained (Natural Resources Conservation Service 2012). Because the majority of the existing project site is currently covered in impervious surfaces, the preferred project and Alternatives 1 and 2 would mimic current drainage patterns. The runoff generated by the proposed parking structure would be collected by a storm drain system and would not result in new on-site erosion issues. No off-site water currently drains onto the site, and there are no existing storm drain facilities on-site. Given the gently sloping topography, the drainage characteristics of on-site soils, and presence of impervious surfaces, neither the preferred project nor the alternatives would result in substantial soil erosion or loss of topsoil. Impacts associated with the preferred project and Alternatives 1 and 2 would be **less than significant**.

c. Would the project be located on a geologic unit or soil that is unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

d. Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code, creating substantial risks to life or property?

According to the Geotechnical Report, expansion index testing on a composite of two soil samples yielded a value of 87. A value of 87 indicates that soils anticipated at proposed excavation depths are moderate to highly expansive. Expansive soils tend to swell with seasonal increases in soil moisture and shrink during the dry season, as soil moisture decreases. The Geotechnical Report determined that the existing fill located on-site would not be a suitable foundation for the proposed development. In addition, the Geotechnical Report also determined that soils on-site have the potential for total and differential

settlement. Therefore, Mitigation Measure GEO-1(a) would be required to reduce impacts associated with the preferred project or Alternative 1 or 2 to a less than significant level. These impacts are therefore **potentially significant unless mitigation incorporated**.

Mitigation Measures

The following mitigation measure would reduce impacts associated with the preferred project and Alternatives 1 and 2 to a less than significant level.

GEO-1 **Minimization of Expansive Soil Hazards.** Once the final maximum loads of the project have been determined, a design-level geotechnical report shall be prepared that identifies the most appropriate geotechnical improvements to on-site soils, the foundation, and parking structure to minimize expansive soil hazards. Recommendations could include, but are not limited to the following:

- Use of imported non-expansive materials combined with pre-moistening of the soils to provide protection for slabs and flatwork
- A layer of non-expansive material 18 to 24 inches thick
- Post-tensioned slabs-on-grade
- Shoring methods, such as shotcrete-faced soil nail walls, tangent drilled caissons, whaler-braced retaining walls, and steel I-beam and lagging walls
- Overexcavation and recompaction
- Utilization of a deep foundation system, such as caissons, driven piles, or rammed aggregate piers

A certified soils engineer shall be retained for monitoring during construction of the project. The certified soils engineer shall also provide any necessary soil testing during construction, to ensure compliance with the design-level geotechnical report, and to provide site specific guidance as subsurface materials are encountered.

e. Would the project 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?

Neither the preferred project nor Alternatives 1 or 2 would require a septic system or any alternative wastewater disposal system. Therefore, **no impacts** would occur.

7 Greenhouse Gas Emissions

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with any applicable plan, policy, or regulation adopted to reduce the emissions of greenhouse gases	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

Climate change is the observed increase in the average temperature of the earth’s atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period. Climate change is the result of numerous, cumulative sources of greenhouse gases (GHG) that contribute to the “greenhouse effect,” a natural occurrence that helps regulate the temperature of the planet. The majority of radiation from the sun hits the earth’s surface and warms it. The surface in turn radiates heat back towards the atmosphere, known as infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping into space and re-radiate it in all directions. This process is essential to support life on Earth because it warms the planet by approximately 60° Fahrenheit. Emissions from human activities since the beginning of the industrial revolution (approximately 250 years ago) are adding to the natural greenhouse effect by increasing the gases in the atmosphere that trap heat and contribute to an average increase in Earth’s temperature.

GHGs occur naturally and from human activities. Human activities that produce GHGs include fossil fuel burning (coal, oil, and natural gas for heating and electricity, gasoline and diesel for transportation); methane generated by landfill wastes and raising livestock; deforestation activities; and some agricultural practices. GHGs produced by human activities include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF₆). Since 1750, estimated concentrations of CO₂, CH₄, and N₂O in the atmosphere have increased over by 36 percent, 148 percent, and 18 percent respectively, primarily due to human activity. Emissions of GHGs affect the atmosphere directly by changing its chemical composition. Changes to the land surface indirectly affect the atmosphere by changing the way in the Earth absorbs gases from the atmosphere. Potential impacts in California of global warming may include loss of snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (California Energy Commission 2009).

CEQA Guidelines provide regulatory direction for the analysis and mitigation of GHG emissions appearing in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts.

The 1,150 metric tons of CO₂e per year (MT CO₂e/yr) threshold is based on emission target set out by the San Luis Obispo County Air Pollution Control Board. Emissions from projects that exceed the 1,150 MT CO₂e/yr. Bright-Line Threshold could still be found less than cumulatively significant if the project as a whole would result in a GHG efficiency of 4.9 MT CO₂e per service population per year. If projects as

proposed exceed both thresholds, they would be required to implement mitigation measures to bring them below the 1,150 MT CO₂e/yr. Bright-Line Threshold or within the 4.9 MT CO₂e per Service Population Efficiency Threshold. A project's GHG emissions could also be found less than significant if they comply with a qualified GHG reduction strategy.

Methodology

Calculations of CO₂, CH₄, and N₂O emissions are provided to identify the magnitude of potential project effects. The analysis focuses on CO₂, CH₄, and N₂O because these make up 98.9 percent of all GHG emissions by volume (IPCC 2007) and are the GHG emissions that the project would emit in the largest quantities. Fluorinated gases, such as HFCs, PFCs, CFCs, and SF₆, which are primarily associated with industrial processes, were also considered for the analysis. However, because the project is a residential/commercial development, the quantity of fluorinated gases would not be significant. Emissions of all GHGs are converted into their equivalent global warming potential in terms of CO₂ (CO₂e). Calculations are based on the methodologies discussed in the California Air Pollution Control Officers Association (CAPCOA) CEQA and Climate Change white paper (2008) and included the use of the California Climate Action Registry General Reporting Protocol (2009). GHG emissions associated with the project were calculated using the most recent version of CalEEMod (version 2016.3.1) (Appendix A).

Construction Emissions

Although construction activity is addressed in this analysis, CAPCOA does not discuss whether any of the suggested threshold approaches adequately address impacts from temporary construction activity. As stated in the CEQA and Climate Change white paper, "more study is needed to make this assessment or to develop separate thresholds for construction activity" (CAPCOA 2008). Nevertheless, air districts such as the SLOAPCD (2012) have recommended amortizing construction-related emissions over the life of the project; SLOAPCD suggests the life of a project is typically 50 years for residential projects and 25 years for commercial projects. The project includes commercial uses; therefore, to provide a conservative estimate of construction emissions, emissions were amortized over the shorter project lifetime estimate of 25 years.

Construction of the project would generate temporary GHG emissions primarily as a result of operation of construction equipment on-site, as well as from vehicles transporting construction workers to and from the project site. Site preparation and grading typically generate the greatest amount of emissions due to the use of grading equipment and soil hauling. This analysis assumes 5,700 cubic yards of soil would be exported from the site. CalEEMod provides an estimate of emissions associated with the construction period, based on parameters such as the duration of construction activity, area of disturbance, and anticipated construction.

Operational Emissions

CalEEMod provides operational emissions of CO₂, N₂O, and CH₄. Emissions from energy use include emissions from electricity and natural gas use. The emissions factors for natural gas combustion are based on the U.S. EPA's AP-42 (Compilation of Air Pollutant Emissions Factors) and California Climate Action Registry. Electricity emissions are calculated by multiplying the energy use by the carbon intensity of the utility district per kilowatt hour (CalEEMod User Guide 2016). The default electricity consumption values in CalEEMod include the California Energy Commission-sponsored California Commercial End Use Survey and Residential Appliance Saturation Survey studies.

Emissions associated with area sources, including consumer products, landscape maintenance, and architectural coating were calculated in CalEEMod and utilize standard emission rates from ARB, U.S. EPA, and emission factor values provided by the local air district (CalEEMod User Guide 2016).



Emissions from waste generation were also calculated in CalEEMod and are based on the IPCC’s methods for quantifying GHG emissions from solid waste using the degradable organic content of waste (CalEEMod User Guide 2016). Waste disposal rates by land use and overall composition of municipal solid waste in California was primarily based on data provided by the California Department of Resources Recycling and Recovery (CalRecycle).

Emissions from water and wastewater usage calculated in CalEEMod were based on the default electricity intensity from the California Energy Commission’s *2006 Refining Estimates of Water-Related Energy Use in California* using the average values for northern and southern California.

For mobile sources, CO₂ and CH₄ emissions from vehicle trips to and from the project site were quantified using CalEEMod. Because CalEEMod does not calculate N₂O emissions from mobile sources, N₂O emissions were quantified using the California Climate Action Registry General Reporting Protocol (January 2009) direct emissions factors for mobile combustion (Appendix A provides calculations). Rates for N₂O emissions were based on the vehicle fleet mix output generated by CalEEMod and the emission factors found in the California Climate Action Registry General Reporting Protocol.

Discussion

- a. *Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?*

Construction activities, energy use, daily operational activities, and mobile sources (traffic) would result in new GHG emissions from the preferred project and Alternatives 1 and 2. CalEEMod was used to calculate emissions resulting from the preferred project (and alternatives) construction and long-term operation. Project-related construction emissions are confined to a relatively short period of time in relation to the overall life of the project. Therefore, construction-related GHG emissions were amortized over a 25-year period to determine the annual construction-related GHG emissions over the life of the project. Table 5 shows construction emissions for the preferred project and Alternatives 1 and 2, which are the same. As shown in Table 5, the construction would result in an annualized average of approximately 16 MT CO₂e/yr. Table 6 shows the preferred project’s total annual GHG emissions, including operational emissions and annualized construction emissions. In addition, Table 6 shows the estimated GHG emissions associated with Alternatives 1 and 2.

Table 5 Estimated Construction Greenhouse Gas Emissions

Year	Preferred Project and Alternatives 1 and 2 Construction Emissions (MT CO ₂ e/yr)
Total	399
Total Amortized over 25 Years	16
See Appendix A for CalEEMod worksheets	

Table 6 Combined Annual Emissions of Greenhouse Gases

Emission Source	Annual Emissions (MT CO ₂ e/yr)
Construction	16
Operational	
Area	<1
Energy	474
Solid Waste	2
Water	10
Mobile	
CO ₂ and CH ₄	258
N ₂ O ¹	14
<hr/>	
Preferred Project Total GHG Emissions	774
<hr/>	
Alternative 1 Total GHG Emissions	765
Alternative 2 Total GHG Emissions	666
GHG Emissions Threshold	1,150
Exceeds Threshold?	NO

¹ N₂O output is not calculated by CalEEMod. See NO_x from Mobile Worksheet in Appendix A
See Appendix A for CalEEMod worksheets.

As shown in Table 6, the project is estimated to produce approximately 774 metric tons of CO₂e per year. The project’s annualized GHG emissions would not exceed the SLOAPCD’s GHG emissions threshold of 1,150 MT CO₂e. Therefore, the projects impacts would be less than significant. As shown in Table 6, Alternatives 1 and 2 would result in similar GHG emissions to the project, and similarly would not exceed the SLOAPCD’s GHG emissions threshold. Impacts would be **less than significant**.

b. Would the project conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

City of San Luis Obispo Climate Action Plan

In 2012, the City of San Luis Obispo adopted its Climate Action Plan for reducing greenhouse gas emissions. The plan identifies strategies to guide the development and implementation of GHG reduction measures in the City of San Luis Obispo and quantifies the emissions reductions that result from these strategies. In addition to addressing strategies to reduce GHG emissions, the Climate Action Plan includes adaptation measures to improve the City’s ability to address the potential impacts that climate change may have on the City and its residents. The Climate Action Plan enables the City to maintain local control of implementing state direction (AB 32 – the California Global Warming Solutions Act) to reduce GHG emissions to 1990 levels by 2020. GHG reduction strategies align with existing General Plan policies and Climate Action Plan.



Senate Bill 32

On September 8, 2016, the governor signed Senate Bill 32 (SB 32) into law, which requires the State to reduce GHGs to 40 percent below 1990 levels by 2030. SB 32 is an extension of AB 32. SB 32 extends AB 32, directing ARB to ensure that GHGs are reduced to 40 percent below the 1990 level by 2030. The other provisions of AB 32 remain unchanged. The project would be in operation before the SB 32 horizon. The California Air Resources Board is currently working to update the Scoping Plan to provide a framework for achieving the 2030 target. The updated Scoping Plan is expected to be completed and adopted by the California Air Resources Board in 2016 (California Air Resources Board 2015).

As part of the analysis in checklist question a, the project would not result in new significant impacts related to greenhouse gas emissions. As the applicable GHG thresholds have been developed by SLOAPCD, and the project would not exceed the adopted GHG thresholds, the preferred project and Alternatives 1 and 2 would not conflict with applicable policies to reduce GHG emissions. Therefore, this impact would be **less than significant**.

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8 Hazards and Hazardous Materials

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on a site that is included on a list of hazardous material 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. For a project located in 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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. For a project near a private airstrip, would it result in a safety hazard for people residing or working in the project area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

A hazardous materials assessment for the project site was prepared in April 2011 by Earth Systems Pacific (Appendix B). Additionally, a constraints-level Environmental Assessment report was conducted in 2005. The information contained in the 2005 study was incorporated by reference into the hazardous materials assessment conducted in April 2011.

Setting

Under Title 22 of the California Code of Regulations (CCR), the term “hazardous substance” refers to both hazardous materials and hazardous wastes. Both of these are classified according to four properties: toxicity, ignitability, corrosiveness, and reactivity (CCR Title 22, Chapter 11, Article 3). A hazardous material is defined as a substance or combination of substances that may cause or significantly contribute to an increase in serious, irreversible, or incapacitating illness, or may pose a substantial presence or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed. Hazardous wastes are hazardous substances that no longer have practical use, such as materials that have been discarded, discharged, spilled, or contaminated or are being stored until they can be disposed of properly (CCR Title 22, Chapter 11, Article 2, Section 66261.10). Soil that is excavated from a site containing hazardous materials is a hazardous waste if it exceeds specific CCR Title 22 criteria.

Factors that can influence the health effects when human beings are exposed to hazardous materials include the dose the person is exposed to, the frequency of exposure, the duration of exposure, the exposure pathway (route by which a chemical enters a person’s body), and the individual’s unique biological susceptibility.

Federal

Many agencies regulate hazardous substances. These include federal agencies such as the U.S. EPA, the Occupational Safety and Health Administration (OSHA), the Department of Transportation, and the National Institute of Health. The following are federal laws and guidelines governing hazardous substances:

- Federal Water Pollution Control Act
- Clean Air Act
- Occupational Safety and Health Act
- Federal Insecticide, Fungicide, and Rodenticide Act
- Comprehensive Environmental Response Compensation and Liability Act
- Guidelines for Carcinogens and Biohazards
- Superfund Amendments and Reauthorization Act Title III
- Resource Conservation and Recovery Act
- Safe Drinking Water Act
- Toxic Substances Control Act

At the federal level, the principal agency regulating the generation, transportation and disposal of hazardous substances is the U.S. EPA, under the authority of the Resource Conservation and Recovery Act (RCRA). The U.S. EPA regulates hazardous substance sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). Applicable federal regulations are contained primarily in Titles 29, 40, and 49 of the Code of Federal Regulations (CFR).

State

The California Environmental Protection Agency (CalEPA) and the Governor’s Office of Emergency Services establish rules governing the use of hazardous substances. The State Water Resources Control Board has primary responsibility to protect water quality and supply.



Applicable State laws include the following:

- Porter Cologne Water Quality Act
- Public Safety/Fire Regulations/Building Codes
- Hazardous Substance Control Law
- Hazardous Substances Information and Training Act
- Hazardous Substances Release Response Plans and Inventory Act
- Air Toxics Hot Spots and Emissions Inventory Law
- Underground Storage of Hazardous Substances Act

Within CalEPA, the Department of Toxic Substances Control, formerly the Department of Health Services, has primary regulatory responsibility, with delegation of enforcement to local jurisdictions that enter into agreements with the state agency, for the generation, transportation and disposal of hazardous substances under the authority of the Hazardous Waste Control Law. State regulations applicable to hazardous substances are indexed in Title 26 of the California Code of Regulations (CCR).

Discussion

- a. *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*
- b. *Would the project 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?*

The preferred project includes a parking structure, small commercial space, and theater. Alternative 1 includes a parking structure, small commercial space, four residential units, and theater, while Alternative 2 includes a parking structure, small commercial space, and 22 residential units. Operational activities associated with the preferred project and alternatives would not require the routine storage or transport of hazardous substances. Similarly, neither the preferred project nor alternatives would include any activities that would create a hazard to the public through upset or accident conditions involving the release of hazardous materials. However, the preferred project and either of the alternatives would involve the removal or demolition of five residential units and a detached garage that were constructed between 1927 and 1957. Due to their age, these existing structures may contain asbestos and lead. Demolition and transport of materials from these structures could result in health hazard impacts to workers if the structures are not remediated prior to construction activities.

Asbestos, a naturally occurring fibrous material, was used as a fireproofing and insulating agent in building construction before being banned by the U.S. EPA in the 1970s. Because it was widely used prior to discovery of its negative health effects, asbestos can be found in a variety of building materials and components including sprayed-on acoustic ceiling materials, thermal insulation, wall and ceiling texture, floor tiles, and pipe insulation. The California Occupational Safety and Health Administration (Cal/OSHA) considers asbestos-containing building materials to be hazardous when a sample contains more than 0.1 percent asbestos by weight; Cal/OSHA requires it to be handled by a licensed, qualified contractor.

Lead can be found in paint, water pipes, plumbing solder, and in soils around buildings and structures with lead-based paint. In 1978, the federal government required the reduction of lead in house paint to less than 0.06 percent (600 parts per million [ppm]). However, some paints manufactured after 1978 for industrial uses or marine uses legally contain more than 0.06 percent lead. Exposure to lead can result in bioaccumulation of lead in the blood, soft tissues, and bones. Children are particularly susceptible to potential lead-related health problems because lead is easily absorbed into developing systems and organs.

Prior to any building demolition, CCR Title 8 Section 5208 requires that a state-certified risk assessor conduct a risk assessment and/or paint inspection of all structures constructed prior to 1978 for the presence of asbestos. If such hazards are determined to exist on site, the risk assessor would prepare a site-specific hazard control plan detailing asbestos-containing building material removal methods and specific instructions for providing protective clothing and gear for abatement personnel. If necessary, the project sponsor would be required to retain a state-certified asbestos-containing building material removal contractor (independent of the risk assessor) to conduct the appropriate abatement measures as required by the plan. Wastes from abatement and demolition activities would be disposed of at a landfill(s) licensed to accept such waste. Once all abatement measures have been implemented, the risk assessor would conduct a clearance examination and provide written documentation to the City that testing and abatement have been completed in accordance with all federal, state, and local laws and regulations.

Several regulations and guidelines pertain to abatement of and protection from exposure to lead-based paint. These include Construction Safety Order 1532.1 from Title 8 of the CCR and lead-based paint exposure guidelines provided by the US Department of Housing and Urban Development. In California, lead-based paint abatement must be performed and monitored by contractors with appropriate certification from the California Department of Health Services. Compliance with existing regulations would ensure impacts related to hazardous materials exposure associated with the preferred project and Alternatives 1 and 2 would be **less than significant**.

- c. *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?*

The project site is located within 0.25 mile of a sensitive use, the existing Mission College Preparatory (Mission Prep) School. However, as discussed under Impacts a and b, neither the preferred project nor Alternatives 1 or 2 includes uses that would result in the routine transport, use, disposal, handling, or emission of any hazardous materials that would create a significant hazard to the public or to the environment, including at the existing school. Therefore, impacts would be **less than significant**.

- d. *Would the project be located on a site included on a list of hazardous material 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?*

Based on the results of a government database records search, the project site is not included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5. The Cortese database identified one site located within one-eighth mile from the project site at 748 Pismo Street. This site is listed as a leaking underground storage tank (LUST) site where cleanup has been completed. Due to the closed status of hazardous materials case at this site, it would not affect the project site. In addition, the RWQCB identified one historical LUST site located within one-eighth mile of the project site at 641 Higuera Street. Due to the closed status of hazardous materials case at this site, it would not affect the project site.

However, according to the hazardous materials assessment in the Geotechnical Report, archived documents at the City of San Luis Obispo Fire Department indicate that the previous use of the site as a welding/automobile repair shop contained several areas of oil-stained soil, a dry well, and a hydraulic lift (Earth Systems Pacific 2011). It is unknown whether or not soil sampling was conducted at the time of removal of these features and there is a potential that these or other undocumented buried features would be encountered during excavation. Furthermore, soil samples taken (in 2005) at three and four feet indicate the presence of total petroleum hydrocarbons in quantities that exceed City of San Luis Obispo Fire Department action levels. The presence of nickel and chromium were also detected, although the concentrations were below actionable levels. Because the preferred project, Alternative 1, and Alternative 2 would require excavation and removal of existing fill based on the geotechnical analysis, construction



activities could result in potential health impacts to workers exposed to on-site soils. Therefore, Mitigation Measure HAZ-1 would be required to reduce impacts associated with the preferred project, Alternative 1, or Alternative 2 to a less than significant level.

Mitigation Measure

The following mitigation measure would reduce impacts associated with the preferred project and Alternatives 1 and 2 to a less than significant level.

HAZ-1 Hazardous Materials Soil Sampling and Remediation. Prior to issuance of grading permits, additional soil samples testing for total petroleum hydrocarbons shall be performed. A work plan shall be completed to address the sampling protocols to be followed, as well as the number of samples to be taken and the chemical analysis required. Upon City of San Luis Obispo approval, the work plan shall be implemented and the results of the soil sampling shall be forwarded to the City of San Luis Obispo. The City should review the data to determine if any additional investigation or remedial activities are deemed necessary. No work shall resume in that area until the lead local regulatory agency has provided written authorization that the area does not warrant any additional action.

If concentrations of contaminants warrant remediation, contaminated materials shall be remediated either prior to or concurrent with construction. Remediation shall generally include a management plan which establishes design and implementation of remediation. Cleanup may include excavation, disposal, bio-remediation, or any other treatment of conditions subject to regulatory action. All necessary reports, regulations and permits shall be followed to achieve cleanup of the site. The contaminated materials shall be remediated under the supervision of an environmental consultant licensed to oversee such remediation and under the direction of the lead oversight agency. The remediation program shall also be approved by the San Luis Obispo Fire Department. All proper waste handling and disposal procedures shall be followed. Upon completion of the remediation, the environmental consultant shall prepare a report summarizing the project, the remediation approach implemented, and the analytical results after completion of the remediation, including all waste disposal or treatment manifests.

- 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?*
- f. *For a project near a private airstrip, would it result in a safety hazard for people residing or working in the project area?*

The project site is not located within an airport land use plan area or in two miles of a public use airport or airstrip. There are no private airstrips in the vicinity of the project site that would result in a safety hazard for people residing or working in the project area. **No impact** would result.

- g. *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

The project would involve the removal of the existing parking lot, detached garage, and residential structures and the construction of a parking structure, commercial space, and theater (and residential units under Alternatives 1 and 2). Construction of neither the preferred project nor Alternative 1 or 2 would impair implementation of, or physically interfere with, an adopted emergency response plan or

emergency evacuation plan. The preferred project and Alternatives 1 and 2 would be required to comply with San Luis Obispo Fire Department specifications and Chapter 5 of the California Fire Code. Impacts would be **less than significant**.

h. Would the project 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?

The project site is surrounded by urban development and no wildlands are in the vicinity of the project site. According to the Safety Element of the City's General Plan, the project site is not located in an area considered at risk for wildland fires. Therefore, **no impacts** would occur.



9 Hydrology and Water Quality

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Violate any water quality standards or waste discharge requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 that would not support existing land uses or planned uses for which permits have been granted)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 that would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Substantially alter the existing drainage pattern of the site or area, including the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or offsite	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Otherwise substantially degrade water quality	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Place housing in a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary, Flood Insurance Rate Map, or other flood hazard delineation map	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h. Place structures in a 100-year flood hazard area that would impede or redirect flood flows	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
i. Expose people or structures to a significant risk of loss, injury, or death involving flooding, including that occurring as a result of the failure of a levee or dam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j. Result in inundation by seiche, tsunami, or mudflow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

Drainage Patterns

The project site is located within the San Luis Obispo Creek Watershed, which drains an area of approximately 84 square miles, including the City of San Luis Obispo and its surrounding hills, mountains, and valleys. According to the San Luis Obispo Waterway Management Plan (WMP), average seasonal precipitation in the City of San Luis Obispo is approximately 21 inches. Because the City is part of a coastal watershed, it is subject to wide ranges in precipitation from droughts to heavy storms.

Flooding

Flooding within the San Luis Obispo Creek system is generally caused by intense Pacific storm systems that occur during the months of December, January, February, and March. The great topographic variability of the watershed causes these systems to drop large amounts of precipitation, especially along the higher ridgelines. The Irish Hills, cresting at about 1,650 feet in elevation, can experience twice the rainfall observed in the lower portions of the watershed. San Luis Obispo Creek can respond very quickly to short, high intensity rainfall bursts. Floods in San Luis Obispo Creek tend to be of high magnitude and relatively short duration.

Water Quality

According to the Regional Water Quality Control Board (RWQCB, San Luis Obispo Creek is on the 2010 Clean Water Act Section 303(d) list of impaired waters for pathogens. Urban stormwater runoff and agricultural runoff are identified as the primary sources of pathogens to the creek. To address pathogen levels the Central Coast Water Board adopted a total maximum daily load (TMDL) for pathogens in the San Luis Obispo Creek, which went into effect July 2005. In 2010, two San Luis Obispo Creek tributaries, Stenner Creek and Prefumo Creek, were added to the TMDL as impaired waters for pathogens. The TMDL implementation schedule calls for achieving pathogen levels in San Luis Obispo Creek and its tributaries by 2015. A Water Quality report created in 2013 stated that TMDL targets for pathogens in San Luis Obispo Creek are not being met in the urban boundary and downstream of urban boundary. The City of San Luis Obispo is tasked to evaluate implementation of additional stormwater management practices to reduce and/or eliminate bacteria discharge associated with the tunnelized portion of San Luis Obispo Creek, which runs under the city’s business district (Central Coast Regional Water Quality Control Board, Report Card 2013). The project site is roughly 200 feet from the San Luis Obispo Creek.

Groundwater quality in the San Luis Obispo Groundwater Basin has been reduced in part due to the degradation of surface waters in San Luis Obispo Creek. Groundwater in the unconfined aquifers within the basin contains high levels of nitrates, iron, manganese, and organic compounds.



Discussion

- a. *Would the project violate any water quality standards or waste discharge requirements?*
- f. *Would the project otherwise substantially degrade water quality?*

The protection of water quality is under the jurisdiction of the RWQCB, and the preferred project would be required to comply with all state and federal requirements pertaining to the preservation of water quality. As previously discussed, a National Pollution Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction Activities is required when a site involves clearing, grading, disturbances to the ground, such as stockpiling, or excavation that results in soil disturbances of one or more acres of total land area. Coverage under the General Permit must also be obtained prior to construction and the preferred project is subject to these requirements.

Under the conditions of the permit, the City, as the project applicant, would be required to eliminate or reduce non-storm water discharges to waters of the nation, develop and implement a Storm Water Pollution Prevention Plan (SWPPP) for the project construction activities, and perform inspections of the storm water pollution prevention measures and control practices to ensure conformance with the site SWPPP. The state permit prohibits the discharge of materials other than storm water discharges, and prohibits all discharges that contain a hazardous substance in excess of reportable quantities established at 40 CFR 117.3 or 40 CFR 302.4. The state permit also specifies that construction activities must meet all applicable provisions of Sections 30 and 402 of the Clean Water Act. Conformance with Section 402 of the Clean Water Act would ensure that the preferred project does not violate any water quality standards or waste discharge requirements.

In addition, the preferred project and Alternatives 1 and 2 would be required to comply with the City's and RWQCB's Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region. To demonstrate compliance, a Stormwater Control Plan is required to be submitted for the project. Based on compliance with existing regulations, neither the preferred project nor Alternatives 1 or 2 would violate any water quality standards or waste discharge requirements, or substantially degrade surface or groundwater quality, and potential impacts would be **less than significant**.

- b. *Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering or the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?*

The project site is currently developed with an existing City-owned parking lot, five residences, and a detached garage. The preferred project would replace the existing parking lot and buildings with a parking structure, a small commercial space, and theater. Alternative 1 includes a parking structure, small commercial space, four residential units, and theater, while Alternative 2 includes a parking structure, small commercial space, and 22 residential units. Because the current use of the site is developed, the preferred project would not result in additional impervious surface area. The preferred project would also mimic existing on-site drainage patterns. Therefore, the net change in impervious surfaces would not increase and existing drainage patterns would remain the same, the preferred project would not interfere with groundwater recharge.

In addition, the preferred project and alternatives would not interfere with groundwater on-site, due to the depth of groundwater (Earth Systems Pacific 2011), and only two percent of the City's water supply comes from groundwater sources. Therefore, neither the preferred project nor Alternatives 1 or 2 would substantially deplete groundwater supply, and impacts would be **less than significant**.

- c. *Would the project substantially alter the existing drainage pattern of the site or area, including by altering the course of a stream or river, in a manner that would result in substantial erosion or siltation on or offsite?*
- d. *Would the project substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or offsite?*
- e. *Would the project create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

The majority of the project site is covered with impervious surfaces, due to the existing City-owned parking lot, five residences, and detached garage. In addition, the preferred project and Alternatives 1 and 2 would utilize existing drainage infrastructure. As previously mentioned, no net change in impervious surfaces would occur and the existing drainage patterns would remain the same. In addition, neither the preferred project nor alternatives would result in substantial new sources of stormwater runoff. Stormwater runoff rates would be similar to existing conditions and existing stormwater infrastructure would be utilized. Impacts to the existing drainage patterns and drain infrastructure associated with the preferred project and Alternatives 1 and 2 would be **less than significant**.

- g. *Would the project place housing in a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary, Flood Insurance Rate Map, or other flood hazard delineation map?*
- h. *Would the project place in a 100-year flood hazard area structures that would impede or redirect flood flows?*

The western edge of the project site is within a 100-year flood zone, as designated on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map ID 06079C1068F. According to the map, however, the flood elevation is 188 feet, which is two feet below finish floor for the lowest level of the proposed structure (RRM Design 2017). Therefore, neither the preferred project nor Alternatives 1 and 2 would place housing in a 100-year flood hazard or impede or redirect flood flows. **No impact** associated with the preferred project and Alternatives 1 and 2 would occur.

- i. *Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding including that occurs as a result of the failure of a levee or dam?*
- j. *Would the project result in inundation by seiche, tsunami, or mudflow?*

The project site is located 10 miles from the Pacific Ocean with elevations ranging between 190 and 203 feet above sea level. The project site is not located in a dam inundation area or Tsunami Inundation Zone, as designated by San Luis Obispo County. The potential for a tsunami to affect the site is nil (Earth Systems Pacific 2011). The closest open body of water to the site is Laguna Lake, located approximately 1.63 miles west and separated by Cerro San Luis and associated topography. Given the distance from Laguna Lake and the terrain that exists between the site and the lake, no seiche impact would occur. **No impact** associated with the preferred project and Alternatives 1 and 2 would occur with respect to flooding as a result of levee or dam failure, or inundation by seiche, tsunami, or mudflow.



10 Land Use and Planning

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Physically divide an established community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Conflict with an applicable habitat conservation plan or natural community conservation plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The City has approximately 46,117 residents (California Department of Finance 2016), and covers roughly 13 square miles. Primary land uses include residential development at a low to moderate density, professional services, government facilities, and general retail. The core of the City constitutes a compact urban form, including a downtown area and distinct surrounding neighborhoods. The City is surrounded by a green belt, which defines a separation of urban uses within the City and rural uses outside of the City.

Regulatory Setting

The project site is located within the jurisdiction of the City of San Luis Obispo. The following regulatory framework includes policies identified in the City's General Plan *Land Use Element*, *Circulation Element*, and *Conceptual Physical Plan for the City's Center* that apply to the project.

San Luis Obispo City General Plan Land Use Element (2014). The following *Land Use Element* policies would apply to the preferred project:

4.10 Parking. The city shall ensure there is a diversity of parking opportunities in the Downtown. Any major increments in parking supply should take the form of structures, located at the edges of the commercial core, so people will walk rather than drive between points within the core. Retail uses outside the core, and professional office developments, may have on-site parking for customers and clients.

San Luis Obispo City General Plan Circulation Element (2014). The following Circulation Element policies would apply to the preferred project:

13.2.4 Public Parking Structures. The city shall only approve construction of additional parking structures after considering the findings and results of a parking supply and demand study.

The Conceptual Plan for the City's Center (Downtown Plan 2016). This plan calls for the project area to be developed with cultural facility uses fronting Monterey Street, retail uses fronting Nipomo Street, and a

parking structure use fronting Palm Street. The plan also recommends that vehicle congestion in the downtown be minimized by locating parking facilities at the core's periphery along key streets that enter the City.

Discussion

a. Would the project physically divide an established community?

The project or alternatives would be located on a developed parcel within an urban setting and would not divide an established community. **No impact** associated with the preferred project or alternatives would occur.

b. Would the project 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, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

The Land Use, Circulation, and Housing Elements of the City's General Plan, along with the Zoning Ordinance, are the primary land use planning guidance documents for the development pattern of the City. The site's existing General Plan land use designations are Office and Medium-High Density Residential. Its zoning designation is Office with a Historic Overlay (O-H) and Medium-High Density Residential (R-3). The project would involve a General Plan amendment to amend the General Plan Land Use Map from Office and Medium-High Density Residential to Public and a Zone Change to amend the Zoning Map from Office with a Historic Overlay (O-H) and Medium-High Density Residential (R-3) to Public Facility with a Historic Overlay (PF-H). It would also require the approval of a Use Permit by the Planning Commission to allow the multi-level parking structure and non-profit theater, as well as deviation to otherwise applicable setback requirements and building height limits. Office, retail, and residential uses would be allowed as accessory uses of the parking and theater facilities. In addition, the project would require variances for the floor to area ratio to exceed 1.0 and maximum coverage to exceed 60 percent. Upon approval of the General Plan amendment/Zone Change, Use Permit, and variances, General Plan amendment, and Zone Change, the impacts of which are discussed throughout this document, the project would be consistent with the land use and zoning designations.

The preferred project would be consistent with both Land Use and Circulation Element Policies. Circulation Element Policy 13.2.4 requires completion of a comprehensive parking study prior to development of parking structure projects. Such a study was completed for the proposed structure by an Ad Hoc Parking Review Committee in March 2009; the study determined that a downtown structure will be required to meet the City's downtown parking needs within the next 5 to 10 years. As such, the preferred project and alternatives would be consistent with the City's general plan. Impacts associated with the preferred project and Alternatives 1 and 2 would be **less than significant**.

c. Would the project conflict with an applicable habitat conservation plan or natural community conservation plan?

No habitat conservation or natural community conservation plans that apply to the project site. **No impact** associated with the preferred project and Alternatives 1 and 2 would occur.



11 Mineral Resources

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts:				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

According to the City’s Conservation and Open Space Element, quarries and mines in the San Luis Obispo area previously produced basaltic stone, “red rock,” and cinnabar. However, mining is no longer permitted within the City, pursuant to Section 17.08.070 of the Zoning Regulations.

Discussion

- a. *Would the project 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?*
- b. *Would the project 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?*

The project site is currently developed with an existing City-owned parking lot, four five residential structures, and a detached garage. The preferred project would replace the existing parking lot and buildings with a parking structure, a small commercial space, and theater. Alternative 1 includes a parking structure, small commercial space, four residential units, and theater, while Alternative 2 includes a parking structure, small commercial space, and 22 residential units. As such, neither the preferred project nor Alternatives 1 or 2 would result in the loss of a known mineral resource. Moreover, extraction of mineral resources is not permitted within the City limits. There would be **no impact** to mineral resources or due to the preferred project or Alternatives 1 or 2.

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12 Noise

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in any of the following impacts?				
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	■	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels	■	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. A substantial permanent increase in ambient noise levels above those existing prior to implementation of the project	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above those existing prior to implementation of the project	■	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. For a project located in 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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
f. For a project near a private airstrip, would it expose people residing or working in the project area to excessive noise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■

Setting

Sensitive receptors near the project site include adjacent residences to the south and east, the Mission College Preparatory School athletic field to the north, residences across Nipomo Street to the west, and residences and the San Luis Obispo Children’s Museum to the south.

Regulatory Setting

STATE OF CALIFORNIA

The State of California has adopted noise standards in areas of regulation not preempted by the federal government. State standards regulate noise levels of motor vehicles, freeway noise affecting classrooms, sound transmission control, occupational noise control, and airport noise. The state has also developed land use compatibility guidelines for community noise environments.

The State Office of Noise Control in “Guidelines for the Preparation and Content of Noise Elements of the General Plan,” (November 1988) provided guidance for the acceptability of projects within specific CNEL contours. It diagrammatically identifies “normally acceptable,” “conditionally acceptable,” “normally unacceptable,” and “clearly unacceptable” noise levels for various land use types. For the residential uses, CNEL of up to 60 dBA for low-density residential (65 dBA for multi-family) is normally acceptable. A noise exposure of up to 70 dBA is considered normally acceptable for schools, churches, and libraries.

CITY OF SAN LUIS OBISPO

The noise criteria for the City and the State of California for current and projected conditions state that the noise intrusive to interior habitable space of residential units from exterior sources should not exceed 45 decibels (dBA) CNEL. Outdoor living areas are restricted to 60 dB CNEL. Table 7 lists the maximum noise exposure for noise-sensitive uses due to transportation noise sources.

The Noise Element and Noise Guidebook (1996) of the City of San Luis Obispo General Plan uses modified land use compatibility standards recommended by the California Department of Health Services. The City’s maximum noise exposure standards for noise-sensitive land uses (specific to transportation noise sources) are shown in Table 7.

Table 7 Maximum Noise Exposure for Noise-Sensitive Uses Due to Transportation Noise Sources

Land Use	Outdoor Activity Areas ¹	Indoor Spaces		
	L _{dn} or CNEL, in dBA	L _{dn} or CNEL, in dBA	L _{eq} in DB ²	L _{max} in dB ³
Residences, hotels, motels, hospitals, nursing homes	60	45	–	60
Theaters, auditoriums, music halls	–	–	35	60
Churches, meeting halls, office buildings, mortuaries	60	–	45	–
Schools, libraries, museums	–	–	45	60
Neighborhood parks	65	–	–	–
Playgrounds	70	–	–	–

¹If the location of the outdoor activity areas is not shown, the outdoor noise standard shall apply at the property line of the receiving land use.

²As determined for a typical worst-case hour during periods of use.

³L_{max} indoor standard applies only to railroad noise at locations south of Orcutt Road.

Source: City of San Luis Obispo General Plan Noise Element, 1996

The City requires that noise generated by new stationary sources be mitigated so as not to exceed the exposure standards shown in Table 8 for noise-sensitive uses, as measured at the property line of the receiver. Table 8 for noise-sensitive uses, as measured at the property line of the receiver.



Table 8 Maximum Noise Exposure for Noise-Sensitive Land Use Areas Due to Stationary Noise Sources

	Daytime (7:00 AM to 10:00 PM)	Nighttime (10:00 PM to 7:00 AM)
Hourly Leq in dB ^{1,2}	50	45
Maximum level in dB ^{1,2}	70	65
Maximum impulsive noise in dB ^{1,3}	65	60

¹ As determined at the property line of the receiver. When determining effectiveness of noise mitigation measures, the standards may be applied on the receptor side of noise barriers or other property-line noise mitigation measures.

² Sound level measurements shall be made with slow meter response.

³ Sound level measurements shall be made with fast meter response.

Source: City of San Luis Obispo General Plan Noise Element, 1996.

The City’s Noise Element lists mitigation strategies in a descending order of preference. If preferred strategies are not implemented, it is the responsibility of the project applicant to demonstrate through a detailed noise study that the preferred approaches are either not effective or not practical, before considering other design criteria described in the General Plan. The City considers the following mitigation measures appropriate where existing sound levels significantly impact noise-sensitive land uses, or where cumulative increases in sound levels resulting from new development significantly impact existing noise-sensitive land uses:

1. Rerouting traffic onto streets that can maintain desired levels of service, consistent with the Circulation Element, and which do not adjoin noise-sensitive land uses.
2. Rerouting trucks onto streets that do not adjoin noise-sensitive land uses.
3. Constructing noise barriers.
4. Reducing traffic speeds through street or intersection design methods.
5. Retrofitting buildings with noise-reducing features.
6. Establishing financial programs, such as low-cost loans to owners of a noise-impacted property, or developer fees to fund noise-mitigation or trip-reduction programs.

The following Noise Element policies are applicable to the project and the local noise environment:

Policy 1.4. New Transportation Noise Sources. Noise created by new transportation noise sources, including road, railroad, and airport expansion projects, shall be mitigated to not exceed the levels specified in Table 4.10-3 for outdoor activity areas and indoor spaces of noise-sensitive land uses which were established before the new transportation noise source.

Policy 1.6. New Development and Stationary Noise Sources. New development of noise-sensitive land uses may be permitted only where location or design allow the development to meet the standards of Table 4.10-4, for existing stationary noise sources.

Title 9, Chapter 9.12 (Noise Control) of the City’s Municipal Code specifies noise standards for various categories of land use. These limits, shown in Table 9, would apply to long-term operation of the site, and are not applicable during construction. As shown in Table 10, these noise level standards are not to be exceeded more than 30 minutes in any one hour and noise levels are prohibited from exceeding the noise level standard plus 20 dBA for any period of time.

Table 9 Exterior Noise Limits (Levels Not To Be Exceeded More Than Thirty Minutes in Any Hour)

Zoning Category	Time Period	Noise Level (dBA)
R-1 and R-2 C/OS Low Density Residential	7:00 a.m. – 10:00 p.m.	55
	10:00 p.m. – 7:00 a.m.	50
R-3 and R-4 High Density Residential	7:00 a.m. – 10:00 p.m.	55
	10:00 p.m. – 7:00 a.m.	50
Office and Public Facility (O and PF)	7:00 a.m. – 10:00 p.m.	60
	10:00 p.m. – 7:00 a.m.	55
Neighborhood, Retail, Community, Downtown and Tourist Commercial (C-N, C-R, C-C, C-D, C T)	7:00 a.m. – 10:00 p.m.	65
	10:00 p.m. – 7:00 a.m.	60

Source: City of San Luis Obispo Municipal Code.

Table 10 Maximum Time Periods for Increased Noise Levels

Noise Standard for Existing Land Use	Maximum Time Period Allowed
+0 dBA	30 minutes/hour
+5 dBA	15 minutes/hour
+10 dBA	5 minutes/hour
+15 dBA	1 minute/hour
+20 dBA	Any time

Source: City of San Luis Obispo Municipal Code Section 9.12.060

Table 11 and Table 12 show the City’s maximum allowable noise levels for short-term operation of mobile equipment and long-term operation of stationary equipment at residential properties. Where technically and economically feasible, the City requires that construction activities that use mobile or stationary equipment which may result in noise at residential properties be conducted so that maximum sound levels from mobile equipment at affected properties would not exceed 85 dBA for mixed residential/commercial land uses (Municipal Code 9.12.050). Except for emergency repair of public service utilities, or where an exception is issued by the City Community Development Department, the City prohibits operation of tools or equipment used in construction, drilling, repair, alteration, or demolition work daily between the hours of 7:00 PM and 7:00 AM, or any time on Sundays or holidays, such that the sound creates a noise disturbance across a residential or commercial property line.

Table 11 Maximum Noise Levels for Nonscheduled, Intermittent, Short-term Operation (Less than Ten Days) of Mobile Equipment

	Single-Family Residential	Multi-Family Residential	Mixed Residential/ Commercial
Daily, except Sundays and legal holidays 7:00 a.m. to 7:00 p.m.	75 dBA	80 dBA	85 dBA
Daily, 7:00 p.m. to 7:00 a.m. and all day Sunday and legal holidays	60 dBA	65 dBA	70 dBA

Source: City of San Luis Obispo Municipal Code.



Table 12 Maximum Noise Levels for Repetitively Scheduled and Relatively Long-Term Operation (Periods of Ten Days or More) of Stationary Equipment

	Single-Family Residential	Multi-Family Residential	Mixed Residential/ Commercial
Daily, except Sundays and legal holidays 7:00 a.m. to 7:00 p.m.	60 dBA	65 dBA	70 dBA
Daily, 7:00 p.m. to 7:00 a.m. and all day Sunday and legal holidays	50 dBA	55 dBA	60 dBA

Source: City of San Luis Obispo Municipal Code.

Discussion

- 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?*
- c. *A substantial permanent increase in ambient noise levels above levels existing without the project?*

The project would introduce new commercial and parking uses on the project site. Existing sensitive uses near the project site and proposed new uses on-site may periodically be subject to noise associated with operation of the project, including stationary equipment, such as heating, ventilation, and air conditioning HVAC systems, trash hauling, parking structure noise, and other general activities associated with commercial and parking activities. However, these on-site sources of operational noise would be similar to those associated with existing nearby commercial uses. Delivery truck and trash hauling trips to the site would be an occasional source of noise, and would be similar in noise level and frequency to existing truck trips associated with other commercial uses located adjacent to the project site. Typical noise sources associated with parking structures include tire squeal, doors slamming, car alarms and horns, and engine start-ups. As a result, impacts would be **potentially significant**, and this issue will be analyzed in the project EIR.

- b. *Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*

Project construction would potentially expose nearby sensitive receptors to a temporary increase in groundborne vibration levels. Groundborne vibration can expose nearby structures to vibration damage or excessive vibration noise. The ground motion caused by vibration is measured as particle velocity in inches per second (in/sec) peak particle velocity (PPV) and is referenced as vibration decibels (VdB). The City of San Luis Obispo considers construction-related vibration significant if construction-related activities create a vibration which is above the vibration perception threshold. The vibration perception threshold is defined in the City of San Luis Obispo Municipal Code (Section 9.12.050) as “The minimum ground or structure-borne vibrational motion necessary to cause a normal person to be aware of the vibration by such direct means as, but not limited to, sensation by touch or visual observation of moving objects. The perception threshold shall be presumed to be a motion velocity of 0.01 in/sec over the range of 1 to 100 Hz.”

In addition, the Federal Transit Administration’s (FTA’s) Transit Noise and Vibration Impact Assessment (2006) guidance is used to determine whether or not groundborne vibration resulting from project-related construction could cause damage to nearby structures. Damage criteria vary depending on the type of building adjacent to the vibration source. For example, for a building that is constructed with reinforced concrete with no plaster, the FTA guidelines state that a continuous vibration level of up to 102 velocity decibels (VdB) (an equivalent to 0.5 in/sec PPV) (FTA May 2006) would not result in any construction vibration damage. For older residential structures, the construction vibration damage

criterion is 98 VdB (0.3 in/sec PPV). For non-engineered timber and masonry (“fragile”) buildings, the construction vibration damage criterion is 88 VdB (0.1 in/sec PPV).

The FTA guidelines indicate that for fragile structures, such as those located immediately adjacent to the project site, a vibration level in excess of 88 VdB may result in damage. Construction of the proposed parking structure may require the use of driven piles or other construction techniques that would result in vibration levels up to 98 VdB at 50 feet from the source. Therefore, due to the project’s proximity to fragile, historic structures and older residential structures that are sensitive to high levels of groundborne vibration, project construction may result in vibration levels that could cause structural damage to fragile historic structures or older residential structures. As a result, impacts associated with vibration would be **potentially significant**, and this issue will be analyzed in the project EIR.

d. Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

The project would generate temporary noise in the project vicinity during the construction period. The main sources of noise during construction activities would be the heavy machinery used in grading and clearing the site. Average noise levels associated with the use of heavy equipment at construction sites can range from about 76 to 95 dBA at 25 feet from the source, depending upon the types of equipment in operation at any given time and phase of construction (FTA 2006).

In addition, the project would generate construction-related traffic that would occur over the construction period and would vary depending on the stage of construction. Vehicles containing construction materials and equipment would access the site throughout all construction phases. However, construction vehicles would be routed to avoid residential streets. The project would also include the demolition or relocation of the five existing homes and detached garage, which would generate hauling trips to and from the project site. The temporary noise generated by vehicles has the potential to disturb receptors nearby to the project, and along the routes to and from the project site. However, as previously noted, truck trips would be routed to avoid residential streets.

Noise-sensitive uses near the project site include residences to the east, residences immediately adjacent to the project site and across Monterey Street to the south, residential uses across Nipomo Street to the west, and Mission Prep School to the north of Palm Street. These land uses may experience a temporary noise annoyance during construction. Based on current site plans for the project, construction activities may occur within 25 feet or less of the residences to the east of the project site.

The City’s noise standard for short-term construction activities (fewer than ten days) at residential uses is 75 dBA, and the standard for relatively long-term construction activity (10 days or more) at residential uses is 60 dBA. As a result, existing sensitive receptors could be exposed to construction noise that exceeds the City’s applicable standards. Therefore, temporary noise during project construction is a **potentially significant** impact, and will be analyzed in the project EIR.

e. For a project located in 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?

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?

The project site is not located within the San Luis Obispo County Regional Airport Land Use Plan or in the vicinity of a private airstrip. Therefore, **no impact** associated with the preferred project and Alternatives 1 and 2 would result.



13 Population and Housing

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in any of the following impacts?				
a. Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Displace substantial amounts of existing housing, necessitating the construction of replacement housing elsewhere	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a. *Would the project 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)?*

The preferred project does not involve development of residential uses and; therefore, would not induce population growth. However, Alternatives 1 and 2 would include residential units. Alternative 1 would include four units, while Alternative 2 would include 22 residential units. Assuming approximately 2.2 persons per household, Alternatives 1 and 2 would generate a population of 9 and 49 persons, respectively. This number of persons would not represent substantial population growth. In addition, this growth would occur within City limits where it would be served by existing urban services. Moreover, the residential component of Alternatives 1 or 2 would contribute to the housing stock of the City. Impacts associated with the preferred project and Alternatives 1 and 2 would **be less than significant**.

b. *Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?*

c. *Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?*

The preferred project would require the demolition of five residences and therefore displace approximately 11 persons. There are an estimated 20,951 housing units and 46,117 people within the City (Department of Finance 2016). While five units and approximately 11 individuals would be displaced, this does not represent a substantial number of people resulting in the need for replacement housing elsewhere. In addition, there are other planned and pending housing projects within the City that would compensate for the loss of housing on the project site. Alternative 1 would include four units, while Alternative 2 would include 22 residential units, which would offset the loss of the existing housing units. Impacts related to the displacement of housing or people associated with the preferred project and Alternatives 1 and 2 would be **less than significant**.

14 Public Services

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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Would the project result in any of the following impacts?

a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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:

1. Fire protection	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Police protection	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Schools	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Parks	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Other public facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

Fire protection services are provided by the San Luis Obispo City Fire Department (SLOFD). The Fire Administration Department is staffed by four professionals, and the Emergency Response Department which is staffed by 42 firefighters. Services provided by SLOFD include fire response, emergency medical response, hazardous materials response, public assistance, and non-emergency services such as fire and life safety inspections, building inspections, fire code investigations, and public education (SLOFD 2016).

The San Luis Obispo Police Department (SLOPD) provides police protection for the city. The Department has 86.5 employees including 60 sworn police officers. The department is divided into two Bureaus; Operations and Administrative Services. The Operations Bureau includes the Patrol Services Division, the Traffic Safety Unit, Situation Oriented Response Team, and Neighborhood Services. The Administrative Services Bureau includes the Administrative Services Division, Investigative Division, Communications Division, and Records Unit (SLOPD 2016).

The San Luis Coastal Unified School District is the agency primarily responsible for providing school services to the City of San Luis Obispo. The District operates 10 elementary schools, two middle schools, three high schools, and an adult school.



Discussion

- a.1. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 fire protection?*

Fire protection services for the project would be provided by City Fire Station One, located at 2160 Santa Barbara Avenue, approximately one mile southeast of the project site. The project includes the removal of the existing parking lot, five residential units, and detached garage. Implementation of the preferred project would increase the intensity of use of the site and would marginally increase the demand for fire protection services over existing conditions. The project would be similar to the land uses on surrounding properties, and the site is already served by the City for fire protection. The preferred project does not include residential uses and would not increase the population of San Luis Obispo. Alternative 1 would include up to four residential units, and Alternative 2 would include up to 22 residential units. Neither the preferred project nor the project alternatives would result in substantial new population growth that would require the construction of new fire protection facilities. Therefore, neither the preferred project nor Alternatives 1 or 2 would substantially alter the number of housing units or population in the city or result in the need for new fire protection facilities to serve the site. There would be no physical impacts from the preferred project, Alternative 1, or Alternative 2 related to the construction of new fire protection facilities and impacts related to fire protection would be **less than significant**.

- a.2. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 police protection?*

The project site is within the existing service area of the City of San Luis Obispo Police Department. The project includes the removal of the existing parking lot, five residential units, and detached garage. Implementation of the preferred project would increase the intensity of use of the site and would marginally increase the demand for police protection services over existing conditions. The project would be similar to the land uses on surrounding properties, and the site is already served by the City for police protection. The preferred project does not include residential uses and would not increase the population of San Luis Obispo. Alternative 1 would include up to four residential units, and Alternative 2 would include up to 22 residential units. Neither the preferred project nor the project alternatives would result in substantial new population growth that would require the construction of new police protection facilities. Therefore, neither the preferred project nor Alternatives 1 or 2 would substantially alter the number of housing units or population in the city or result in the need for new police protection facilities to serve the site. There would be no physical impacts related to the construction of new police protection facilities and impacts related to police protection would be **less than significant**.

- a.3. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 schools?*
- a.4. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 parks?*
- a.5. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 other public facilities?*

The project site is located in the existing service area of the City's schools, parks, and other public facilities. The project includes the removal of the existing parking lot, five residential units, and detached garage. Under the preferred project, the site would be redeveloped with a parking structure, 5,000 square feet of commercial space, and a relocated Little Theatre. The preferred project does not include residential uses and would not increase the population of San Luis Obispo such that it would necessitate the construction of new schools, parks, or other public facilities. However, Alternatives 1 and 2 would include residential units. Alternative 1 would include four units, while Alternative 2 would include 22 residential units. Assuming approximately 2.2 persons per household, Alternatives 1 and 2 would generate a population of 9 and 49 persons, respectively. These alternatives would not substantially alter the number of housing units or population in the city and would not directly result in the need for new park, school, or other government facilities to serve the project; however, the developer would be required to pay a school impact fee as required by Senate Bill 50 (Government Code Section 65970) and a parkland in-lieu fee per the Quimby Act to offset potential impacts on school and park facilities, respectively. Impacts associated with the preferred project and Alternatives 1 and 2 would **be less than significant**.



15 Recreation

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in any of the following impacts?				
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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The City of San Luis Obispo Parks and Recreation Department is responsible for managing and maintaining the City's eight mini parks, ten neighborhood parks, and eight community parks. Some of the City's parks are joint-use sites. A wide variety of recreational activities can be conducted at these facilities, including baseball, softball, football, tennis, jogging, swimming, skateboarding, and other passive recreational sports (City of San Luis Obispo 2012).

Discussion

- 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?*
- 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?*

As discussed under Public Services Impact a.4, the preferred project does not include residential uses and would not increase the population of San Luis Obispo. Therefore, the preferred project would not result in substantial new population growth that would result in physical deterioration of existing recreational facilities or require the construction of new recreational facilities. Alternative 1 would include up to four residential units, and Alternative 2 would include up to 22 residential units, which would generate a population of 9 and 49 persons, respectively; however, the developer would be required to pay a park land in-lieu fee to offset potential impacts on park facilities. Impacts to parks and recreational facilities associated with the preferred project and Alternatives 1 and 2 would **be less than significant**.

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16 Transportation

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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Would the project result in any of the following impacts?

a. Conflict with an applicable plan, ordinance or policy establishing a measure of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit?	■	□	□	□
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	■	□	□	□
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?	□	□	□	■
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	□	■	□	□
e. Result in inadequate emergency access?	□	□	□	■
f. Conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities?	■	□	□	□

Setting

The city is accessed primarily by roadways including Highway 101, State Route 1, and State Route 227. Routes of regional significance providing access include Los Osos Valley Road, Foothill Road, Broad Street, O'Connor Way, Prefumo Canyon Road, South Higuera Street and Orcutt Road. The local roadway system is

characterized by a regular street grid in the downtown area and neighborhood street patterns in other parts of the city. According to the Land Use and Circulation Element (LUCE) Update Program EIR (2014), the roadways bounding the project site are classified as local roadways. These facilities are two-lane streets that provide local access and service. The desired maximum average daily trips for local roadways is 1,500 for local streets that primarily serve residential development and 5,000, for local streets that primarily serve non-residential development.

SLO Transit is the City's fixed-route bus program, which serves the public within the city limits, surrounding county areas and the Cal Poly campus. The program operates seven routes throughout the city on weekdays, five routes after-hours on weekdays during the school year, six routes on Saturdays and four routes on Sundays. In addition to the fixed route system, SLO Transit operates the Downtown Trolley, a shuttle service geared towards visitors that operates Thursdays through Saturdays between the downtown commercial area and hotels located along Monterey Street. The San Luis Obispo Regional Transit Authority (RTA) is a joint powers authority operating fixed-route bus service in San Luis Obispo County.

Additionally, the incorporated City of San Luis Obispo currently contains:

- 7.2 miles of Class I Bicycle Paths
- 29.7 miles of roadway with Class II Bicycle Lanes
- 24.0 miles of Class III Bicycle Routes

The City maintains sidewalks on almost all City roadways, as well as pedestrian crosswalks throughout the downtown area. Sidewalks are located immediately adjacent to the project boundary along Palm, Nipomo and Monterey Streets.

City Level of Service Standards

The City's Circulation Element (2014) establishes the following multimodal minimum level of service (LOS) standards:

- **Bicycle** – LOS D (however, bicycle LOS objectives only apply to routes identified in the City's adopted Bicycle Transportation Plan; as such, this standard is not applicable to this project)
- **Pedestrian** – LOS C
- **Transit** – Baseline LOS or LOS D, whichever is lower (only applies to routes identified in the City's Short Range Transit Plan; as such, this standard is not applicable to this project)
- **Vehicle** – LOS E or for an intersection or roadway segment in the downtown area

In addition, Table 4 of the Circulation Element identifies maximum average daily trip (ADT) standards for its various roadway classifications. The desired maximum ADT for local roadways is 1,500 for local streets that primarily serve residential development and 5,000 for local streets that primarily serve non-residential development.

The Circulation Element (2014) also establishes priorities of each mode, such that construction, expansion, or alteration for one mode does not degrade the service level of a higher priority mode. In the downtown area, modes are prioritized as follows: 1) pedestrians, 2) bicycles, 3) transit, and 4) vehicle. Exceptions to multimodal priorities may apply when in conflict with safety or regulatory requirements or conflicts with area character, topography, street design, and existing density.

In accordance to the criteria specified in the San Luis Obispo Circulation Element and LUCE Program EIR, a project has a significant impact on the above modes of transportation when it causes an exceedance to one of these LOS standards. For modes already operating below the established LOS standards, any further degradation to the LOS score would also be considered a significant impact under CEQA. Impacts are considered significant if the project degrades a higher priority mode.



Discussion

- a. *Would the project conflict with an applicable plan, ordinance or policy establishing a measure of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit?*
- b. *Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*
- f. *Conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities?*

The project site is currently developed with an existing City-owned parking lot with 77 parking spaces, five residential structures, and a detached garage. The preferred project would replace the existing parking lot and buildings with an above-ground, five-level parking structure with up to 445 spaces, theater, and 5,000 square feet of commercial space. Alternative 1 would include the parking structure, theater, 2,500 square feet of commercial space, and four residential units. Alternative 2 would include the parking structure, 5,000 square feet of commercial space, and 22 two bedroom residential units.

Table 13 shows the estimated weekday PM peak hour vehicle trips that would be generated by the preferred project. This increase in trips could potentially degrade multi-modal LOS. Impacts are **potentially significant** and will be further studied in an EIR.

Table 13 Estimated Project Vehicle Trip Generation (Weekday PM Peak Hour)

Land Use	In	Out	Weekday Peak PM Hour
Parking Structure ¹	118	147	265
Commercial Space ²	1	7	8
SLO Little Theatre ³	15	15	30
Total	134	169	303

¹ Rates derived from counts at 919 Palm parking structure; average of Tuesday and Wednesday. Estimate reflects 368 net new spaces (445 new minus 77 existing)

² ITE Trip Generation Manual, Land Use Code 710, General Office Building. Average rate used for Peak Hour trips.

³ Estimated based on information provided by Little Theatre staff.

Source: Central Coast Transportation Consulting (2017)

- c. *Would the project 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?*

The project site is not located in the San Luis Obispo County Regional Airport Plan Area and would not result in an increase of air traffic levels or a change to air traffic patterns. Therefore, there would be **no impact**.

- d. *Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?*

Vehicle Site Access and On-Site Circulation

Access to the project site would be from Palm Street, with secondary access along Nipomo Street, as shown on Figure 3. There would be one lane for ingress and one lane for egress at each driveway. The

service rate of vehicles entering and leaving a parking facility is a function of the entrance approach, driver familiarity, internal circulation, volume of traffic on adjacent streets, and number of pedestrian conflicts.

The type of parking control affects the number of vehicles that can be served in a given hour at a parking garage entry. Typical entrance and exit parking control service rates range from 100 to 400 vehicles per hour, per lane. The project traffic analysis used with an entry service rate of 134 vehicles per hour per lane (see Table 13). The City of San Luis Obispo uses different exit control devices in its parking structures for which the service rates can vary. However, on-site queuing at exit gates is less critical since queuing occurs within the parking structure. The current project site plan shows an entrance that can store up to two vehicles, which means each service gate can serve up to 110 vehicles per hour per lane before queuing onto the street in most conditions. Given two service gates and a peak-hour inbound volume of 134 vehicles, the entrance capacity would be adequate. All estimated approaches and departures are estimated to have a maximum queue of less than 50 feet. With low volumes on Nipomo Street and Dana Street, the number of potential conflicts with vehicles entering and exiting the proposed parking structure is expected to be infrequent. Vehicle site access would be adequate and impacts would be **less than significant**.

Vehicle-Pedestrian Conflicts

Long curb extensions along the project frontage would prevent architectural elements immediately adjacent to the driveways from hindering the ability of drivers exiting the parking structure to see pedestrians walking along the sidewalk adjacent to the parking structure, or vice-versa.

The community outreach identified concerns related to speeding and vehicle-pedestrian conflicts at the existing offset intersection of Nipomo Street between Dana Street and Monterey Street. The project is not proposing to modify this intersection; therefore, the project is not expected to create a new operational condition at this intersection. The City of San Luis Obispo has an adopted Operating Policy for Pedestrian Crosswalks (January 2000) that establishes guidelines on where pedestrian crosswalks, pedestrian traffic control warning devices and other miscellaneous pedestrian control devices are installed on City streets. Compliance with the San Luis Obispo Municipal Code would ensure that impacts related to vehicle-pedestrian conflicts would be **less than significant**.

Pedestrian and Bicycle Access

The preferred project is expected to generate some pedestrian and bicycle demand by patrons and employees using the parking structure, as well as employees at and visitors to the Little Theatre and commercial space. Alternatives 1 and 2 would also generate some pedestrian and bicycle demand by residents. Most of the pedestrian destinations would be the existing and planned land uses towards the downtown core along the north and south sides of Palm Street and east side of Nipomo Street. Pedestrian access would be provided at each staircase in three of the four corners of the parking structure, which would provide direct access to the parking structure and adjacent and nearby land uses. Per City requirements, the project will maintain the existing sidewalks on the north and west sides of the project frontage. Thus, the existing and proposed pedestrian facilities can reasonably accommodate the increased demand and the newly constructed pedestrian facilities will not conflict with planned facilities; therefore, impacts to pedestrian facilities are anticipated to be **less than significant**.

Bicycle parking would be provided on the southern side of the parking structure near the project driveway at Nipomo Street in accordance with the bicycle parking space requirements in the San Luis Obispo Municipal Code (§17.16.060). The existing bicycle facilities can reasonably accommodate the increased demand, and implementation of the preferred project and Alternatives 1 and 2 will not conflict with any planned facility; therefore, **less than significant** bicycle impacts are anticipated.



The project site plan does not identify any modifications or enhancements to existing transit facilities. It does not conflict with the existing transit system or planned transit system. Based on the project impact criteria listed above, the preferred project and Alternatives 1 and 2 will have a **less than significant** impact on transit facilities.

Project Construction

This construction period of the preferred project would result in short-term construction traffic, construction parking, and modifications to existing pedestrian, bicycle, and transit circulation during the construction period. The traffic associated with the construction of the project could be a potentially significant impact. The preparation of a construction management plan, as described in Mitigation Measure T-1 would reduce construction impacts to less-than-significant levels. Impacts associated with the preferred project and Alternatives 1 and 2 would be **less than significant with mitigation**.

T-1 Construction Management Plan. Prior to the issuance of each building permit, the construction contractor shall meet with the Public Works department to determine traffic management strategies to reduce, to the maximum extent feasible, traffic congestion and the effects of parking demand by construction workers during construction of this project. The construction contractor will develop a construction management plan for review and approval by the Public Works department. The plan should include at least the following items and requirements:

- A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic and pedestrian hours, detour signs if required, lane closure procedures, sidewalk closure procedures, signs, cones for drivers, and designated construction access routes.
- Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur.
- Location of construction staging areas for materials, equipment, and vehicles (must be located on the project site).
- Identification of haul routes for movement of construction vehicles that would minimize impacts on vehicular and pedestrian traffic, circulation and safety; and provision for monitoring surface streets used for haul routes so that any damage and debris attributable to the haul trucks can be identified and corrected by the project applicant.
- Temporary construction fences to contain debris and material and to secure the site.
- Provisions for removal of trash generated by project construction activity.
- A process for responding to and tracking complaints pertaining to construction activity.
- Provisions for monitoring surface streets used for truck routes so that any damage and debris attributable to the trucks can be identified and corrected.
- It is anticipated that this Construction Traffic Management Plan would be developed in the context of a larger Construction Management Plan, which would address other issues such as hours of construction on site, limitations on noise and dust emissions, and other applicable items.

e. Would the project result in inadequate emergency access?

Access to the project site would be from Palm Street, with secondary access along Nipomo Street. Proposed internal roadways and access points would be sized to accommodate emergency vehicles per City of San Luis Obispo Fire Department standards and would therefore provide adequate emergency access. **No impact** would result.

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17 Utilities and Service Systems

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in any of the following impacts?				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Comply with federal, state, and local statutes and regulations related to solid waste	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

Wastewater

The City's wastewater collection system and Water Resource Recovery Facility (WRRF) is managed by the Utilities Department. The wastewater collection system consists of approximately 136 miles of gravity sewer lines, three miles of force main, and nine sewer lift stations. Wastewater is conveyed to the WRRF, located on Prado Road near U.S. Highway 101. The WRRF removes larger material, treats the waste stream to reduce the amount of nutrients and bacteria, separates sludge, and discharges treated effluent into San Luis Obispo Creek near Los Osos Valley Road and is distributed as recycled water for irrigation.

The sludge is separated from the wastewater, dried in open ponds at the WRRF, and hauled away for disposal.

The WRRF treats about 4.5 million gallons per day (mgd) during dry weather conditions. The current treatment capacity of the WRRF during dry weather conditions is 5.1 mgd. Therefore, the WRRF currently has excess capacity of 0.6 mgd. Average dry weather treatment flows have been stable over the past several years due to a balance between increased population and improved water conservation. In 2015, average flows to the WRRF were approximately 3.5 mgd.

Water

The City Utilities Department provides water service throughout the City. The City obtains water from five sources: Salinas Reservoir (Santa Margarita Lake), Whale Rock Reservoir, Nacimiento Reservoir, recycled water from the City's Water Resource Recovery Facility, and a limited amount of groundwater. The water is treated at the City water treatment plant prior to distribution. Total annual water use in the City was 5,541 acre feet in 2012. The 2014 Land Use and Circulation Element Update estimated that water demand will increase to 7,815 acre feet per year upon build-out. The estimated water supply is 9,980 acre feet, including the City's primary water supply (7,815 acre feet), reliability reserve (1,214 acre feet), and secondary water supply (951 acre feet). Based on the City's Urban Water Management Plan and 2014 Land Use and Circulation Element Final EIR, the City does not anticipate a need for supplemental water supplies through the year 2035 and build-out of the LUCE. The City's 2015 Urban Water Management Plan incorporates mandated water conservation targets in response to the severe drought conditions. The City's 2015 interim target gallons per capita per day (GPCD) was 120, and the actual 2015 GPCD was 92; as noted in the Draft Plan, the City met and surpassed 2015 interim water use reduction targets.

Stormwater

The City's stormwater drainage system is a separate system that collects surface runoff and conveys it to community retention basins, such as parks, local lakes, and creeks. San Luis Obispo Creek is the main tributary in the City, discharging into the Pacific Ocean at Avila Bay. The City's stormwater drainage system currently consists of 59 miles of storm sewer with 2,148 drainage inlets and 490 storm drain manholes (City of San Luis Obispo 2010).

Solid Waste

The regional waste collection facility is Cold Canyon Landfill, located approximately six miles south of the City on Highway 227. The San Luis Garbage Company is the sole provider of solid-waste collection services in the City. The San Luis Obispo County Integrated Waste Management Authority estimates that the daily per capita solid waste disposal rate from all sources in the State of California is approximately 4 to 5 pounds. Cold Canyon Landfill is currently (2012) permitted to receive up to 1,620 tons of solid waste per day, with an estimated remaining capacity of 1,830,000 cubic yards (16.8 percent remaining capacity).

Discussion

- a. *Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*
- b. *Would the project 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?*
- e. *Would the project 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?*



The project site is currently developed with an existing City-owned parking lot, five residential structures, and a detached garage. The preferred project would replace the existing parking lot and buildings with a parking structure, a small commercial space, and theater. Alternative 1 includes a parking structure, small commercial space, four residential units, and theater, while Alternative 2 includes a parking structure, small commercial space, and 22 residential units. The preferred project and alternatives would result in an incremental increase in demand on City infrastructure, including water, wastewater, and storm water facilities. Development of the site would be served by City sewer and water service, which both have adequate capacity to serve the use (LUCE EIR 2014). Currently, storm water facilities exist in the vicinity of the project site, and it is not anticipated the proposed project will result in the need for new facilities or expansion of existing facilities, which could have significant environmental effects. Further, water and wastewater impact fees would be required and are set at a level intended to offset the potential impacts of new development. Impact fees are collected at the time building permits are issued. Impacts from the preferred project and Alternatives 1 and 2 would be **less than significant**.

d. Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

The project site is currently developed with an existing City-owned parking lot, five residential structures, and a detached garage. The preferred project would replace the existing parking lot and buildings with a parking structure, a small commercial space, and theater. Alternative 1 includes a parking structure, small commercial space, four residential units, and theater, while Alternative 2 includes a parking structure, small commercial space, and 22 residential units. Therefore, Alternative 1 would result in no net increase in residential units and Alternative 2 would result in a net increase of 17 residential units. Assuming approximately 2.2 persons per household, Alternatives 2 would generate a net population approximately 37 persons. Based on a per capita water use of 119 gallons per day, Alternative 2 would have a water demand of approximately 1.4 acre feet per year. Based on this incremental increase in water demand, and adequate capacity, impacts would be **less than significant**.

c. Would the project 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?

The majority of the project site is covered with impervious surfaces, including an existing City-owned parking lot, five residences, and a detached garage. The net change in impervious surfaces between existing uses and the proposed parking structure would be minimal, and the existing drainage patterns would remain the same. Therefore, the preferred project would utilize the existing drainage infrastructure and no new or expanded facilities would be required. Impacts to storm water drainage facilities associated with the preferred project and alternatives would be **less than significant**.

f. Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

g. Would the project comply with federal, state, and local statutes and regulations related to solid waste?

Solid waste would be generated during construction and demolition of the existing parking lot and residential structures. Construction waste would be temporary in nature, and in accordance with AB 341, would be required to divert 50 percent of construction waste from landfills, which would minimize potential impacts to the Cold Canyon Landfill. The amount of waste generated from operation of the project or Alternative 1 and 2 would be minimal. San Luis Garbage Company and Cold Canyon Landfill have adequate capacity to serve the preferred project and Alternatives 1 and 2. Impacts would be **less than significant**.

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18 Mandatory Findings of Significance

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Does the project have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, 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?	■	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 projects)?	■	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	■	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a. *Does the project have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, 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?*

Based upon the analysis throughout this Initial Study, the preferred project and Alternatives 1 and 2 would not have the potential to substantially reduce the habitat of a fish or wildlife species or cause a fish or wildlife population to drop below self-sustaining levels, eliminate a plant or animal community, or reduce or restrict the range of a rare or endangered plant or animal. However, the project site does contain resources that may be historically or culturally significant. The impacts on these resources will be evaluated in the EIR. These effects towards cultural resources are **potentially significant**.

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 projects)?*

With the exception of transportation and noise, which will be evaluated in the EIR, the impacts of the preferred project and Alternatives 1 and 2 are individually limited and not considered “cumulatively considerable.” Although incremental changes in certain issue areas can be expected as a result of the

preferred project and Alternatives 1 and 2, all environmental impacts that could occur as a result of the preferred project would be reduced to a less than significant level through compliance with existing regulations discussed in this Initial Study and/or implementation of the mitigation measures recommended in this Initial Study for the following resource areas: air quality (AQ-1 and 2), biological resources (BIO-1), geology and soils (GEO-1), and hazards and hazardous materials (HAZ-1). The cumulative effects of the preferred project and Alternatives 1 and 2 on noise and traffic are **potentially significant** and will be evaluated in the EIR.

- c. *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

The preferred project and Alternatives 1 and 2 may result in potential adverse impacts to human beings. Mitigation measures are proposed to reduce impacts related to air quality, geology and soils, and hazards and hazardous materials. However, impacts to aesthetics, noise, and transportation are **potentially significant**. These impacts will be analyzed further in the EIR.

References and Preparers

References

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List of Preparers

Rincon Consultants, Inc. prepared this Initial Study under contract to the City of San Luis Obispo. Persons involved in data gathering analysis, project management, and quality control include the following.

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Appendix A

CalEEMod Air and Greenhouse Gas Emissions Estimates

Palm & Nipomo Project - Preferred - San Luis Obispo County, Winter

Palm & Nipomo Project - Preferred
San Luis Obispo County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	5.00	1000sqft	0.00	5,000.00	0
Enclosed Parking with Elevator	445.00	Space	1.40	178,000.00	0
Movie Theater (No Matinee)	255.00	Seat	0.00	23,841.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.2	Precipitation Freq (Days)	44
Climate Zone	4			Operational Year	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Total Lot Acreage = 1.4 based on Project Description, Theater square footage based on PD.

Construction Phase - Extended arch coating length to 30 days.

Demolition - Demo = 7,700 sf

Vehicle Trips - WkDy Trip Rate based on applicant provided traffic info. Parking Garage would not generate new trips

Road Dust - SLO County APCD- CARB

Area Mitigation -

Palm & Nipomo Project - Preferred - San Luis Obispo County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	30.00
tblLandUse	BuildingSpaceSquareFeet	5,737.50	23,841.00
tblLandUse	LandUseSquareFeet	5,737.50	23,841.00
tblLandUse	LotAcreage	0.11	0.00
tblLandUse	LotAcreage	4.00	1.40
tblLandUse	LotAcreage	0.13	0.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblVehicleTrips	WD_TR	11.03	16.00
tblVehicleTrips	WD_TR	1.76	1.20

2.0 Emissions Summary

Palm & Nipomo Project - Preferred - San Luis Obispo County, Winter

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.8905	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004		0.1646
Energy	0.0211	0.1917	0.1610	1.1500e-003		0.0146	0.0146		0.0146	0.0146		229.9951	229.9951	4.4100e-003	4.2200e-003	231.3618
Mobile	1.1279	3.9760	10.8361	0.0232	1.9862	0.0305	2.0167	0.5309	0.0288	0.5596		2,337.9318	2,337.9318	0.1175		2,340.8686
Total	2.0395	4.1684	11.0696	0.0244	1.9862	0.0454	2.0315	0.5309	0.0436	0.5744		2,568.0811	2,568.0811	0.1223	4.2200e-003	2,572.3950

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.8905	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004		0.1646
Energy	0.0211	0.1917	0.1610	1.1500e-003		0.0146	0.0146		0.0146	0.0146		229.9951	229.9951	4.4100e-003	4.2200e-003	231.3618
Mobile	1.1279	3.9760	10.8361	0.0232	1.9862	0.0305	2.0167	0.5309	0.0288	0.5596		2,337.9318	2,337.9318	0.1175		2,340.8686
Total	2.0395	4.1684	11.0696	0.0244	1.9862	0.0454	2.0315	0.5309	0.0436	0.5744		2,568.0811	2,568.0811	0.1223	4.2200e-003	2,572.3950

Palm & Nipomo Project - Preferred - San Luis Obispo County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/5/2018	2/1/2018	5	20	
2	Site Preparation	Site Preparation	2/2/2018	2/5/2018	5	2	
3	Grading	Grading	2/6/2018	2/9/2018	5	4	
4	Building Construction	Building Construction	2/10/2018	11/16/2018	5	200	
5	Paving	Paving	11/17/2018	11/30/2018	5	10	
6	Architectural Coating	Architectural Coating	12/1/2018	1/11/2019	5	30	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 1.4

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 43,262; Non-Residential Outdoor: 14,421; Striped Parking Area: 10,680 (Architectural Coating – sqft)

OffRoad Equipment

Palm & Nipomo Project - Preferred - San Luis Obispo County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Palm & Nipomo Project - Preferred - San Luis Obispo County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	35.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	86.00	34.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	17.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3912	0.0000	0.3912	0.0592	0.0000	0.0592			0.0000			0.0000
Off-Road	2.4838	24.3641	15.1107	0.0241		1.4365	1.4365		1.3429	1.3429		2,391.1659	2,391.1659	0.6058		2,406.3105
Total	2.4838	24.3641	15.1107	0.0241	0.3912	1.4365	1.8277	0.0592	1.3429	1.4021		2,391.1659	2,391.1659	0.6058		2,406.3105

Palm & Nipomo Project - Preferred - San Luis Obispo County, Winter

3.2 Demolition - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0210	0.6463	0.1531	1.3900e-003	0.0305	4.8100e-003	0.0353	8.3600e-003	4.6000e-003	0.0130		149.8063	149.8063	8.6500e-003		150.0225
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442
Total	0.0983	0.7146	0.7375	2.6100e-003	0.1590	5.6900e-003	0.1647	0.0425	5.4100e-003	0.0479		271.5242	271.5242	0.0137		271.8667

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3912	0.0000	0.3912	0.0592	0.0000	0.0592			0.0000			0.0000
Off-Road	2.4838	24.3641	15.1107	0.0241		1.4365	1.4365		1.3429	1.3429	0.0000	2,391.1659	2,391.1659	0.6058		2,406.3105
Total	2.4838	24.3641	15.1107	0.0241	0.3912	1.4365	1.8277	0.0592	1.3429	1.4021	0.0000	2,391.1659	2,391.1659	0.6058		2,406.3105

Palm & Nipomo Project - Preferred - San Luis Obispo County, Winter

3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0210	0.6463	0.1531	1.3900e-003	0.0305	4.8100e-003	0.0353	8.3600e-003	4.6000e-003	0.0130		149.8063	149.8063	8.6500e-003		150.0225
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442
Total	0.0983	0.7146	0.7375	2.6100e-003	0.1590	5.6900e-003	0.1647	0.0425	5.4100e-003	0.0479		271.5242	271.5242	0.0137		271.8667

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.8061	20.7472	8.0808	0.0172		0.9523	0.9523		0.8761	0.8761		1,735.3630	1,735.3630	0.5402		1,748.8690
Total	1.8061	20.7472	8.0808	0.0172	5.7996	0.9523	6.7518	2.9537	0.8761	3.8298		1,735.3630	1,735.3630	0.5402		1,748.8690

Palm & Nipomo Project - Preferred - San Luis Obispo County, Winter

3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810
Total	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.8061	20.7472	8.0808	0.0172		0.9523	0.9523		0.8761	0.8761	0.0000	1,735.3630	1,735.3630	0.5402		1,748.8690
Total	1.8061	20.7472	8.0808	0.0172	5.7996	0.9523	6.7518	2.9537	0.8761	3.8298	0.0000	1,735.3630	1,735.3630	0.5402		1,748.8690

Palm & Nipomo Project - Preferred - San Luis Obispo County, Winter

3.3 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810
Total	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4972	17.0666	6.7630	0.0141		0.7947	0.7947		0.7311	0.7311		1,421.2605	1,421.2605	0.4425		1,432.3219
Total	1.4972	17.0666	6.7630	0.0141	4.9143	0.7947	5.7090	2.5256	0.7311	3.2568		1,421.2605	1,421.2605	0.4425		1,432.3219

Palm & Nipomo Project - Preferred - San Luis Obispo County, Winter

3.4 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810
Total	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4972	17.0666	6.7630	0.0141		0.7947	0.7947		0.7311	0.7311	0.0000	1,421.2605	1,421.2605	0.4425		1,432.3219
Total	1.4972	17.0666	6.7630	0.0141	4.9143	0.7947	5.7090	2.5256	0.7311	3.2568	0.0000	1,421.2605	1,421.2605	0.4425		1,432.3219

Palm & Nipomo Project - Preferred - San Luis Obispo County, Winter

3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810
Total	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.8389	2,030.8389	0.4088		2,041.0596
Total	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.8389	2,030.8389	0.4088		2,041.0596

Palm & Nipomo Project - Preferred - San Luis Obispo County, Winter

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1881	4.0247	1.4528	6.7100e-003	0.1578	0.0384	0.1962	0.0454	0.0367	0.0822		711.8927	711.8927	0.0497		713.1355
Worker	0.5112	0.4518	3.8655	8.1000e-003	0.8502	5.8100e-003	0.8560	0.2255	5.3700e-003	0.2309		805.2106	805.2106	0.0334		806.0462
Total	0.6993	4.4764	5.3182	0.0148	1.0080	0.0442	1.0522	0.2709	0.0421	0.3130		1,517.1033	1,517.1033	0.0831		1,519.1816

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.8389	2,030.8389	0.4088		2,041.0596
Total	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.8389	2,030.8389	0.4088		2,041.0596

Palm & Nipomo Project - Preferred - San Luis Obispo County, Winter

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1881	4.0247	1.4528	6.7100e-003	0.1578	0.0384	0.1962	0.0454	0.0367	0.0822		711.8927	711.8927	0.0497		713.1355
Worker	0.5112	0.4518	3.8655	8.1000e-003	0.8502	5.8100e-003	0.8560	0.2255	5.3700e-003	0.2309		805.2106	805.2106	0.0334		806.0462
Total	0.6993	4.4764	5.3182	0.0148	1.0080	0.0442	1.0522	0.2709	0.0421	0.3130		1,517.1033	1,517.1033	0.0831		1,519.1816

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618		1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618		1,346.4360	1,346.4360	0.4113		1,356.7186

Palm & Nipomo Project - Preferred - San Luis Obispo County, Winter

3.6 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442
Total	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618	0.0000	1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618	0.0000	1,346.4360	1,346.4360	0.4113		1,356.7186

Palm & Nipomo Project - Preferred - San Luis Obispo County, Winter

3.6 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442
Total	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	24.7552					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	25.0538	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171

Palm & Nipomo Project - Preferred - San Luis Obispo County, Winter

3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1010	0.0893	0.7641	1.6000e-003	0.1681	1.1500e-003	0.1692	0.0446	1.0600e-003	0.0456		159.1695	159.1695	6.6100e-003		159.3347
Total	0.1010	0.0893	0.7641	1.6000e-003	0.1681	1.1500e-003	0.1692	0.0446	1.0600e-003	0.0456		159.1695	159.1695	6.6100e-003		159.3347

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	24.7552					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171
Total	25.0538	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171

Palm & Nipomo Project - Preferred - San Luis Obispo County, Winter

3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1010	0.0893	0.7641	1.6000e-003	0.1681	1.1500e-003	0.1692	0.0446	1.0600e-003	0.0456		159.1695	159.1695	6.6100e-003		159.3347
Total	0.1010	0.0893	0.7641	1.6000e-003	0.1681	1.1500e-003	0.1692	0.0446	1.0600e-003	0.0456		159.1695	159.1695	6.6100e-003		159.3347

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	24.7552					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	25.0216	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423

Palm & Nipomo Project - Preferred - San Luis Obispo County, Winter

3.7 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0909	0.0782	0.6682	1.5500e-003	0.1681	1.1100e-003	0.1692	0.0446	1.0300e-003	0.0456		154.4883	154.4883	5.8000e-003		154.6333
Total	0.0909	0.0782	0.6682	1.5500e-003	0.1681	1.1100e-003	0.1692	0.0446	1.0300e-003	0.0456		154.4883	154.4883	5.8000e-003		154.6333

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	24.7552					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	25.0216	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423

Palm & Nipomo Project - Preferred - San Luis Obispo County, Winter

3.7 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0909	0.0782	0.6682	1.5500e-003	0.1681	1.1100e-003	0.1692	0.0446	1.0300e-003	0.0456		154.4883	154.4883	5.8000e-003		154.6333
Total	0.0909	0.0782	0.6682	1.5500e-003	0.1681	1.1100e-003	0.1692	0.0446	1.0300e-003	0.0456		154.4883	154.4883	5.8000e-003		154.6333

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Palm & Nipomo Project - Preferred - San Luis Obispo County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.1279	3.9760	10.8361	0.0232	1.9862	0.0305	2.0167	0.5309	0.0288	0.5596		2,337.9318	2,337.9318	0.1175		2,340.8686
Unmitigated	1.1279	3.9760	10.8361	0.0232	1.9862	0.0305	2.0167	0.5309	0.0288	0.5596		2,337.9318	2,337.9318	0.1175		2,340.8686

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	80.00	12.30	5.25	135,697	135,697
Movie Theater (No Matinee)	306.00	571.20	471.75	485,758	485,758
Total	386.00	583.50	477.00	621,456	621,456

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4
Movie Theater (No Matinee)	13.00	5.00	5.00	1.80	79.20	19.00	66	17	17

4.4 Fleet Mix

Palm & Nipomo Project - Preferred - San Luis Obispo County, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Enclosed Parking with Elevator	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Movie Theater (No Matinee)	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0211	0.1917	0.1610	1.1500e-003		0.0146	0.0146		0.0146	0.0146		229.9951	229.9951	4.4100e-003	4.2200e-003	231.3618
NaturalGas Unmitigated	0.0211	0.1917	0.1610	1.1500e-003		0.0146	0.0146		0.0146	0.0146		229.9951	229.9951	4.4100e-003	4.2200e-003	231.3618

Palm & Nipomo Project - Preferred - San Luis Obispo County, Winter

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	225.342	2.4300e-003	0.0221	0.0186	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5109	26.5109	5.1000e-004	4.9000e-004	26.6684
Movie Theater (No Matinee)	1729.62	0.0187	0.1696	0.1424	1.0200e-003		0.0129	0.0129		0.0129	0.0129		203.4842	203.4842	3.9000e-003	3.7300e-003	204.6934
Total		0.0211	0.1917	0.1610	1.1500e-003		0.0146	0.0146		0.0146	0.0146		229.9951	229.9951	4.4100e-003	4.2200e-003	231.3618

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0.225342	2.4300e-003	0.0221	0.0186	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5109	26.5109	5.1000e-004	4.9000e-004	26.6684
Movie Theater (No Matinee)	1.72962	0.0187	0.1696	0.1424	1.0200e-003		0.0129	0.0129		0.0129	0.0129		203.4842	203.4842	3.9000e-003	3.7300e-003	204.6934
Total		0.0211	0.1917	0.1610	1.1500e-003		0.0146	0.0146		0.0146	0.0146		229.9951	229.9951	4.4100e-003	4.2200e-003	231.3618

6.0 Area Detail

Palm & Nipomo Project - Preferred - San Luis Obispo County, Winter

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Mitigated	0.8905	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004			0.1646
Unmitigated	0.8905	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004			0.1646

Palm & Nipomo Project - Preferred - San Luis Obispo County, Winter

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2035					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6803					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.8100e-003	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004		0.1646
Total	0.8905	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004		0.1646

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2035					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6803					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.8100e-003	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004		0.1646
Total	0.8905	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004		0.1646

7.0 Water Detail

Palm & Nipomo Project - Preferred - San Luis Obispo County, Winter

7.1 Mitigation Measures Water**8.0 Waste Detail**

8.1 Mitigation Measures Waste**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Palm & Nipomo Project - Preferred - San Luis Obispo County, Summer

Palm & Nipomo Project - Preferred
San Luis Obispo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	5.00	1000sqft	0.00	5,000.00	0
Enclosed Parking with Elevator	445.00	Space	1.40	178,000.00	0
Movie Theater (No Matinee)	255.00	Seat	0.00	23,841.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.2	Precipitation Freq (Days)	44
Climate Zone	4			Operational Year	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Total Lot Acreage = 1.4 based on Project Description, Theater square footage based on PD.

Construction Phase - Extended arch coating length to 30 days.

Demolition - Demo = 7,700 sf

Vehicle Trips - WkDy Trip Rate based on applicant provided traffic info. Parking Garage (0) would not generate trips

Road Dust - SLO County APCD- CARB

Area Mitigation -

Palm & Nipomo Project - Preferred - San Luis Obispo County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	30.00
tblLandUse	BuildingSpaceSquareFeet	5,737.50	23,841.00
tblLandUse	LandUseSquareFeet	5,737.50	23,841.00
tblLandUse	LotAcreage	0.11	0.00
tblLandUse	LotAcreage	4.00	1.40
tblLandUse	LotAcreage	0.13	0.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblVehicleTrips	WD_TR	11.03	16.00
tblVehicleTrips	WD_TR	1.76	1.20

2.0 Emissions Summary

Palm & Nipomo Project - Preferred - San Luis Obispo County, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.8905	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004		0.1646
Energy	0.0211	0.1917	0.1610	1.1500e-003		0.0146	0.0146		0.0146	0.0146		229.9951	229.9951	4.4100e-003	4.2200e-003	231.3618
Mobile	1.1611	3.8511	10.1898	0.0242	1.9862	0.0301	2.0163	0.5309	0.0283	0.5592		2,436.3790	2,436.3790	0.1137		2,439.2205
Total	2.0727	4.0434	10.4232	0.0253	1.9862	0.0449	2.0311	0.5309	0.0432	0.5740		2,666.5283	2,666.5283	0.1185	4.2200e-003	2,670.7469

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.8905	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004		0.1646
Energy	0.0211	0.1917	0.1610	1.1500e-003		0.0146	0.0146		0.0146	0.0146		229.9951	229.9951	4.4100e-003	4.2200e-003	231.3618
Mobile	1.1611	3.8511	10.1898	0.0242	1.9862	0.0301	2.0163	0.5309	0.0283	0.5592		2,436.3790	2,436.3790	0.1137		2,439.2205
Total	2.0727	4.0434	10.4232	0.0253	1.9862	0.0449	2.0311	0.5309	0.0432	0.5740		2,666.5283	2,666.5283	0.1185	4.2200e-003	2,670.7469

Palm & Nipomo Project - Preferred - San Luis Obispo County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/5/2018	2/1/2018	5	20	
2	Site Preparation	Site Preparation	2/2/2018	2/5/2018	5	2	
3	Grading	Grading	2/6/2018	2/9/2018	5	4	
4	Building Construction	Building Construction	2/10/2018	11/16/2018	5	200	
5	Paving	Paving	11/17/2018	11/30/2018	5	10	
6	Architectural Coating	Architectural Coating	12/1/2018	1/11/2019	5	30	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 1.4

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 43,262; Non-Residential Outdoor: 14,421; Striped Parking Area: 10,680 (Architectural Coating – sqft)

OffRoad Equipment

Palm & Nipomo Project - Preferred - San Luis Obispo County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Palm & Nipomo Project - Preferred - San Luis Obispo County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	35.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	86.00	34.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	17.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3912	0.0000	0.3912	0.0592	0.0000	0.0592			0.0000			0.0000
Off-Road	2.4838	24.3641	15.1107	0.0241		1.4365	1.4365		1.3429	1.3429		2,391.1659	2,391.1659	0.6058		2,406.3105
Total	2.4838	24.3641	15.1107	0.0241	0.3912	1.4365	1.8277	0.0592	1.3429	1.4021		2,391.1659	2,391.1659	0.6058		2,406.3105

Palm & Nipomo Project - Preferred - San Luis Obispo County, Summer

3.2 Demolition - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0205	0.6409	0.1438	1.4100e-003	0.0305	4.7200e-003	0.0352	8.3600e-003	4.5200e-003	0.0129		151.8744	151.8744	8.3600e-003		152.0834
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092
Total	0.0885	0.7011	0.7374	2.6900e-003	0.1590	5.6000e-003	0.1646	0.0425	5.3300e-003	0.0478		279.5544	279.5544	0.0135		279.8926

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3912	0.0000	0.3912	0.0592	0.0000	0.0592			0.0000			0.0000
Off-Road	2.4838	24.3641	15.1107	0.0241		1.4365	1.4365		1.3429	1.3429	0.0000	2,391.1659	2,391.1659	0.6058		2,406.3105
Total	2.4838	24.3641	15.1107	0.0241	0.3912	1.4365	1.8277	0.0592	1.3429	1.4021	0.0000	2,391.1659	2,391.1659	0.6058		2,406.3105

Palm & Nipomo Project - Preferred - San Luis Obispo County, Summer

3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0205	0.6409	0.1438	1.4100e-003	0.0305	4.7200e-003	0.0352	8.3600e-003	4.5200e-003	0.0129		151.8744	151.8744	8.3600e-003		152.0834
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092
Total	0.0885	0.7011	0.7374	2.6900e-003	0.1590	5.6000e-003	0.1646	0.0425	5.3300e-003	0.0478		279.5544	279.5544	0.0135		279.8926

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.8061	20.7472	8.0808	0.0172		0.9523	0.9523		0.8761	0.8761		1,735.3630	1,735.3630	0.5402		1,748.8690
Total	1.8061	20.7472	8.0808	0.0172	5.7996	0.9523	6.7518	2.9537	0.8761	3.8298		1,735.3630	1,735.3630	0.5402		1,748.8690

Palm & Nipomo Project - Preferred - San Luis Obispo County, Summer

3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518
Total	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.8061	20.7472	8.0808	0.0172		0.9523	0.9523		0.8761	0.8761	0.0000	1,735.3630	1,735.3630	0.5402		1,748.8690
Total	1.8061	20.7472	8.0808	0.0172	5.7996	0.9523	6.7518	2.9537	0.8761	3.8298	0.0000	1,735.3630	1,735.3630	0.5402		1,748.8690

Palm & Nipomo Project - Preferred - San Luis Obispo County, Summer

3.3 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518
Total	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4972	17.0666	6.7630	0.0141		0.7947	0.7947		0.7311	0.7311		1,421.2605	1,421.2605	0.4425		1,432.3219
Total	1.4972	17.0666	6.7630	0.0141	4.9143	0.7947	5.7090	2.5256	0.7311	3.2568		1,421.2605	1,421.2605	0.4425		1,432.3219

Palm & Nipomo Project - Preferred - San Luis Obispo County, Summer

3.4 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518
Total	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4972	17.0666	6.7630	0.0141		0.7947	0.7947		0.7311	0.7311	0.0000	1,421.2605	1,421.2605	0.4425		1,432.3219
Total	1.4972	17.0666	6.7630	0.0141	4.9143	0.7947	5.7090	2.5256	0.7311	3.2568	0.0000	1,421.2605	1,421.2605	0.4425		1,432.3219

Palm & Nipomo Project - Preferred - San Luis Obispo County, Summer

3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518
Total	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.8389	2,030.8389	0.4088		2,041.0596
Total	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.8389	2,030.8389	0.4088		2,041.0596

Palm & Nipomo Project - Preferred - San Luis Obispo County, Summer

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1788	4.0347	1.2972	6.9100e-003	0.1578	0.0374	0.1952	0.0454	0.0358	0.0813		732.7384	732.7384	0.0465		733.9009
Worker	0.4500	0.3981	3.9269	8.5000e-003	0.8502	5.8100e-003	0.8560	0.2255	5.3700e-003	0.2309		844.6519	844.6519	0.0342		845.5069
Total	0.6288	4.4329	5.2241	0.0154	1.0080	0.0433	1.0512	0.2709	0.0412	0.3121		1,577.3903	1,577.3903	0.0807		1,579.4078

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.8389	2,030.8389	0.4088		2,041.0596
Total	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.8389	2,030.8389	0.4088		2,041.0596

Palm & Nipomo Project - Preferred - San Luis Obispo County, Summer

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1788	4.0347	1.2972	6.9100e-003	0.1578	0.0374	0.1952	0.0454	0.0358	0.0813		732.7384	732.7384	0.0465		733.9009
Worker	0.4500	0.3981	3.9269	8.5000e-003	0.8502	5.8100e-003	0.8560	0.2255	5.3700e-003	0.2309		844.6519	844.6519	0.0342		845.5069
Total	0.6288	4.4329	5.2241	0.0154	1.0080	0.0433	1.0512	0.2709	0.0412	0.3121		1,577.3903	1,577.3903	0.0807		1,579.4078

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618		1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618		1,346.4360	1,346.4360	0.4113		1,356.7186

Palm & Nipomo Project - Preferred - San Luis Obispo County, Summer

3.6 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092
Total	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618	0.0000	1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618	0.0000	1,346.4360	1,346.4360	0.4113		1,356.7186

Palm & Nipomo Project - Preferred - San Luis Obispo County, Summer

3.6 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092
Total	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	24.7552					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	25.0538	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171

Palm & Nipomo Project - Preferred - San Luis Obispo County, Summer

3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0889	0.0787	0.7763	1.6800e-003	0.1681	1.1500e-003	0.1692	0.0446	1.0600e-003	0.0456		166.9661	166.9661	6.7600e-003		167.1351
Total	0.0889	0.0787	0.7763	1.6800e-003	0.1681	1.1500e-003	0.1692	0.0446	1.0600e-003	0.0456		166.9661	166.9661	6.7600e-003		167.1351

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	24.7552					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171
Total	25.0538	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171

Palm & Nipomo Project - Preferred - San Luis Obispo County, Summer

3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0889	0.0787	0.7763	1.6800e-003	0.1681	1.1500e-003	0.1692	0.0446	1.0600e-003	0.0456		166.9661	166.9661	6.7600e-003		167.1351
Total	0.0889	0.0787	0.7763	1.6800e-003	0.1681	1.1500e-003	0.1692	0.0446	1.0600e-003	0.0456		166.9661	166.9661	6.7600e-003		167.1351

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	24.7552					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	25.0216	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423

Palm & Nipomo Project - Preferred - San Luis Obispo County, Summer

3.7 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0799	0.0689	0.6832	1.6300e-003	0.1681	1.1100e-003	0.1692	0.0446	1.0300e-003	0.0456		162.0692	162.0692	5.9500e-003		162.2181
Total	0.0799	0.0689	0.6832	1.6300e-003	0.1681	1.1100e-003	0.1692	0.0446	1.0300e-003	0.0456		162.0692	162.0692	5.9500e-003		162.2181

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	24.7552					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	25.0216	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423

Palm & Nipomo Project - Preferred - San Luis Obispo County, Summer

3.7 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0799	0.0689	0.6832	1.6300e-003	0.1681	1.1100e-003	0.1692	0.0446	1.0300e-003	0.0456		162.0692	162.0692	5.9500e-003		162.2181
Total	0.0799	0.0689	0.6832	1.6300e-003	0.1681	1.1100e-003	0.1692	0.0446	1.0300e-003	0.0456		162.0692	162.0692	5.9500e-003		162.2181

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Palm & Nipomo Project - Preferred - San Luis Obispo County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.1611	3.8511	10.1898	0.0242	1.9862	0.0301	2.0163	0.5309	0.0283	0.5592		2,436.3790	2,436.3790	0.1137		2,439.2205
Unmitigated	1.1611	3.8511	10.1898	0.0242	1.9862	0.0301	2.0163	0.5309	0.0283	0.5592		2,436.3790	2,436.3790	0.1137		2,439.2205

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	80.00	12.30	5.25	135,697	135,697
Movie Theater (No Matinee)	306.00	571.20	471.75	485,758	485,758
Total	386.00	583.50	477.00	621,456	621,456

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4
Movie Theater (No Matinee)	13.00	5.00	5.00	1.80	79.20	19.00	66	17	17

4.4 Fleet Mix

Palm & Nipomo Project - Preferred - San Luis Obispo County, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Enclosed Parking with Elevator	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Movie Theater (No Matinee)	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0211	0.1917	0.1610	1.1500e-003		0.0146	0.0146		0.0146	0.0146		229.9951	229.9951	4.4100e-003	4.2200e-003	231.3618
NaturalGas Unmitigated	0.0211	0.1917	0.1610	1.1500e-003		0.0146	0.0146		0.0146	0.0146		229.9951	229.9951	4.4100e-003	4.2200e-003	231.3618

Palm & Nipomo Project - Preferred - San Luis Obispo County, Summer

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	225.342	2.4300e-003	0.0221	0.0186	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5109	26.5109	5.1000e-004	4.9000e-004	26.6684
Movie Theater (No Matinee)	1729.62	0.0187	0.1696	0.1424	1.0200e-003		0.0129	0.0129		0.0129	0.0129		203.4842	203.4842	3.9000e-003	3.7300e-003	204.6934
Total		0.0211	0.1917	0.1610	1.1500e-003		0.0146	0.0146		0.0146	0.0146		229.9951	229.9951	4.4100e-003	4.2200e-003	231.3618

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0.225342	2.4300e-003	0.0221	0.0186	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5109	26.5109	5.1000e-004	4.9000e-004	26.6684
Movie Theater (No Matinee)	1.72962	0.0187	0.1696	0.1424	1.0200e-003		0.0129	0.0129		0.0129	0.0129		203.4842	203.4842	3.9000e-003	3.7300e-003	204.6934
Total		0.0211	0.1917	0.1610	1.1500e-003		0.0146	0.0146		0.0146	0.0146		229.9951	229.9951	4.4100e-003	4.2200e-003	231.3618

6.0 Area Detail

Palm & Nipomo Project - Preferred - San Luis Obispo County, Summer

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Mitigated	0.8905	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004			0.1646
Unmitigated	0.8905	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004			0.1646

Palm & Nipomo Project - Preferred - San Luis Obispo County, Summer

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2035					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6803					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.8100e-003	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004		0.1646
Total	0.8905	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004		0.1646

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2035					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6803					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.8100e-003	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004		0.1646
Total	0.8905	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004		0.1646

7.0 Water Detail

Palm & Nipomo Project - Preferred - San Luis Obispo County, Summer

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Palm & Nipomo Project - Preferred - San Luis Obispo County, Annual

Palm & Nipomo Project - Preferred
San Luis Obispo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	5.00	1000sqft	0.00	5,000.00	0
Enclosed Parking with Elevator	445.00	Space	1.40	178,000.00	0
Movie Theater (No Matinee)	255.00	Seat	0.00	23,841.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.2	Precipitation Freq (Days)	44
Climate Zone	4			Operational Year	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Total Lot Acreage = 1.4 based on Project Description, Theater square footage based on PD.

Construction Phase - Extended arch coating length to 30 days.

Demolition - Demo = 7,700 sf

Vehicle Trips - WkDy Trip Rate based on applicant provided traffic info. Parking Garage (0) would not generate trips

Road Dust - SLO County APCD- CARB

Area Mitigation -

Palm & Nipomo Project - Preferred - San Luis Obispo County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	30.00
tblLandUse	BuildingSpaceSquareFeet	5,737.50	23,841.00
tblLandUse	LandUseSquareFeet	5,737.50	23,841.00
tblLandUse	LotAcreage	0.11	0.00
tblLandUse	LotAcreage	4.00	1.40
tblLandUse	LotAcreage	0.13	0.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblVehicleTrips	WD_TR	11.03	16.00
tblVehicleTrips	WD_TR	1.76	1.20

2.0 Emissions Summary

Palm & Nipomo Project - Preferred - San Luis Obispo County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-5-2018	4-4-2018	0.8214	0.8214
2	4-5-2018	7-4-2018	0.8151	0.8151
3	7-5-2018	10-4-2018	0.8243	0.8243
4	10-5-2018	1-4-2019	0.7853	0.7853
5	1-5-2019	4-4-2019	0.0676	0.0676
		Highest	0.8243	0.8243

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1624	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0231	0.0231	6.0000e-005	0.0000	0.0246
Energy	3.8500e-003	0.0350	0.0294	2.1000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	471.9905	471.9905	0.0204	4.7600e-003	473.9170
Mobile	0.1315	0.4786	1.2636	2.8200e-003	0.2336	3.6500e-003	0.2372	0.0626	3.4300e-003	0.0660	0.0000	258.0053	258.0053	0.0126	0.0000	258.3198
Waste						0.0000	0.0000		0.0000	0.0000	0.9439	0.0000	0.9439	0.0558	0.0000	2.3385
Water						0.0000	0.0000		0.0000	0.0000	1.0130	5.7303	6.7432	0.1043	2.5100e-003	10.0987
Total	0.2978	0.5137	1.3049	3.0300e-003	0.2336	6.3500e-003	0.2399	0.0626	6.1300e-003	0.0687	1.9569	735.7492	737.7061	0.1931	7.2700e-003	744.6986

Palm & Nipomo Project - Preferred - San Luis Obispo County, Annual

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1624	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0231	0.0231	6.0000e-005	0.0000	0.0246
Energy	3.8500e-003	0.0350	0.0294	2.1000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	471.9905	471.9905	0.0204	4.7600e-003	473.9170
Mobile	0.1315	0.4786	1.2636	2.8200e-003	0.2336	3.6500e-003	0.2372	0.0626	3.4300e-003	0.0660	0.0000	258.0053	258.0053	0.0126	0.0000	258.3198
Waste						0.0000	0.0000		0.0000	0.0000	0.9439	0.0000	0.9439	0.0558	0.0000	2.3385
Water						0.0000	0.0000		0.0000	0.0000	1.0130	5.7303	6.7432	0.1043	2.5100e-003	10.0987
Total	0.2978	0.5137	1.3049	3.0300e-003	0.2336	6.3500e-003	0.2399	0.0626	6.1300e-003	0.0687	1.9569	735.7492	737.7061	0.1931	7.2700e-003	744.6986

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Palm & Nipomo Project - Preferred - San Luis Obispo County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/5/2018	2/1/2018	5	20	
2	Site Preparation	Site Preparation	2/2/2018	2/5/2018	5	2	
3	Grading	Grading	2/6/2018	2/9/2018	5	4	
4	Building Construction	Building Construction	2/10/2018	11/16/2018	5	200	
5	Paving	Paving	11/17/2018	11/30/2018	5	10	
6	Architectural Coating	Architectural Coating	12/1/2018	1/11/2019	5	30	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 1.4

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 43,262; Non-Residential Outdoor: 14,421; Striped Parking Area: 10,680 (Architectural Coating – sqft)

OffRoad Equipment

Palm & Nipomo Project - Preferred - San Luis Obispo County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Palm & Nipomo Project - Preferred - San Luis Obispo County, Annual

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	35.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	86.00	34.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	17.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.9100e-003	0.0000	3.9100e-003	5.9000e-004	0.0000	5.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2436	0.1511	2.4000e-004		0.0144	0.0144		0.0134	0.0134	0.0000	21.6923	21.6923	5.5000e-003	0.0000	21.8297
Total	0.0248	0.2436	0.1511	2.4000e-004	3.9100e-003	0.0144	0.0183	5.9000e-004	0.0134	0.0140	0.0000	21.6923	21.6923	5.5000e-003	0.0000	21.8297

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3.2 Demolition - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1000e-004	6.5400e-003	1.4800e-003	1.0000e-005	3.0000e-004	5.0000e-005	3.5000e-004	8.0000e-005	5.0000e-005	1.3000e-004	0.0000	1.3699	1.3699	8.0000e-005	0.0000	1.3718
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-004	6.7000e-004	5.8000e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1132	1.1132	5.0000e-005	0.0000	1.1143
Total	9.1000e-004	7.2100e-003	7.2800e-003	2.0000e-005	1.5500e-003	6.0000e-005	1.6100e-003	4.1000e-004	6.0000e-005	4.7000e-004	0.0000	2.4831	2.4831	1.3000e-004	0.0000	2.4862

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.9100e-003	0.0000	3.9100e-003	5.9000e-004	0.0000	5.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2436	0.1511	2.4000e-004		0.0144	0.0144		0.0134	0.0134	0.0000	21.6923	21.6923	5.5000e-003	0.0000	21.8297
Total	0.0248	0.2436	0.1511	2.4000e-004	3.9100e-003	0.0144	0.0183	5.9000e-004	0.0134	0.0140	0.0000	21.6923	21.6923	5.5000e-003	0.0000	21.8297

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3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1000e-004	6.5400e-003	1.4800e-003	1.0000e-005	3.0000e-004	5.0000e-005	3.5000e-004	8.0000e-005	5.0000e-005	1.3000e-004	0.0000	1.3699	1.3699	8.0000e-005	0.0000	1.3718
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-004	6.7000e-004	5.8000e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1132	1.1132	5.0000e-005	0.0000	1.1143
Total	9.1000e-004	7.2100e-003	7.2800e-003	2.0000e-005	1.5500e-003	6.0000e-005	1.6100e-003	4.1000e-004	6.0000e-005	4.7000e-004	0.0000	2.4831	2.4831	1.3000e-004	0.0000	2.4862

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0208	8.0800e-003	2.0000e-005		9.5000e-004	9.5000e-004		8.8000e-004	8.8000e-004	0.0000	1.5743	1.5743	4.9000e-004	0.0000	1.5866
Total	1.8100e-003	0.0208	8.0800e-003	2.0000e-005	5.8000e-003	9.5000e-004	6.7500e-003	2.9500e-003	8.8000e-004	3.8300e-003	0.0000	1.5743	1.5743	4.9000e-004	0.0000	1.5866

Palm & Nipomo Project - Preferred - San Luis Obispo County, Annual

3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	4.0000e-005	3.6000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0685	0.0685	0.0000	0.0000	0.0686
Total	4.0000e-005	4.0000e-005	3.6000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0685	0.0685	0.0000	0.0000	0.0686

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0208	8.0800e-003	2.0000e-005		9.5000e-004	9.5000e-004		8.8000e-004	8.8000e-004	0.0000	1.5743	1.5743	4.9000e-004	0.0000	1.5866
Total	1.8100e-003	0.0208	8.0800e-003	2.0000e-005	5.8000e-003	9.5000e-004	6.7500e-003	2.9500e-003	8.8000e-004	3.8300e-003	0.0000	1.5743	1.5743	4.9000e-004	0.0000	1.5866

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3.3 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	4.0000e-005	3.6000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0685	0.0685	0.0000	0.0000	0.0686
Total	4.0000e-005	4.0000e-005	3.6000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0685	0.0685	0.0000	0.0000	0.0686

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0341	0.0135	3.0000e-005		1.5900e-003	1.5900e-003		1.4600e-003	1.4600e-003	0.0000	2.5787	2.5787	8.0000e-004	0.0000	2.5988
Total	2.9900e-003	0.0341	0.0135	3.0000e-005	9.8300e-003	1.5900e-003	0.0114	5.0500e-003	1.4600e-003	6.5100e-003	0.0000	2.5787	2.5787	8.0000e-004	0.0000	2.5988

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3.4 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	8.0000e-005	7.1000e-004	0.0000	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1370	0.1370	1.0000e-005	0.0000	0.1372
Total	9.0000e-005	8.0000e-005	7.1000e-004	0.0000	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1370	0.1370	1.0000e-005	0.0000	0.1372

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0341	0.0135	3.0000e-005		1.5900e-003	1.5900e-003		1.4600e-003	1.4600e-003	0.0000	2.5787	2.5787	8.0000e-004	0.0000	2.5988
Total	2.9900e-003	0.0341	0.0135	3.0000e-005	9.8300e-003	1.5900e-003	0.0114	5.0500e-003	1.4600e-003	6.5100e-003	0.0000	2.5787	2.5787	8.0000e-004	0.0000	2.5988

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3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	8.0000e-005	7.1000e-004	0.0000	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1370	0.1370	1.0000e-005	0.0000	0.1372
Total	9.0000e-005	8.0000e-005	7.1000e-004	0.0000	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1370	0.1370	1.0000e-005	0.0000	0.1372

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2592	1.7428	1.3877	2.2000e-003		0.1058	0.1058		0.1022	0.1022	0.0000	184.2346	184.2346	0.0371	0.0000	185.1618
Total	0.2592	1.7428	1.3877	2.2000e-003		0.1058	0.1058		0.1022	0.1022	0.0000	184.2346	184.2346	0.0371	0.0000	185.1618

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3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0183	0.4079	0.1379	6.8000e-004	0.0154	3.7800e-003	0.0192	4.4600e-003	3.6200e-003	8.0800e-003	0.0000	65.6775	65.6775	4.3600e-003	0.0000	65.7865
Worker	0.0460	0.0443	0.3835	8.2000e-004	0.0828	5.8000e-004	0.0834	0.0220	5.4000e-004	0.0225	0.0000	73.6416	73.6416	3.0300e-003	0.0000	73.7174
Total	0.0643	0.4523	0.5214	1.5000e-003	0.0982	4.3600e-003	0.1026	0.0265	4.1600e-003	0.0306	0.0000	139.3192	139.3192	7.3900e-003	0.0000	139.5039

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2592	1.7428	1.3877	2.2000e-003		0.1058	0.1058		0.1022	0.1022	0.0000	184.2344	184.2344	0.0371	0.0000	185.1616
Total	0.2592	1.7428	1.3877	2.2000e-003		0.1058	0.1058		0.1022	0.1022	0.0000	184.2344	184.2344	0.0371	0.0000	185.1616

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3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0183	0.4079	0.1379	6.8000e-004	0.0154	3.7800e-003	0.0192	4.4600e-003	3.6200e-003	8.0800e-003	0.0000	65.6775	65.6775	4.3600e-003	0.0000	65.7865
Worker	0.0460	0.0443	0.3835	8.2000e-004	0.0828	5.8000e-004	0.0834	0.0220	5.4000e-004	0.0225	0.0000	73.6416	73.6416	3.0300e-003	0.0000	73.7174
Total	0.0643	0.4523	0.5214	1.5000e-003	0.0982	4.3600e-003	0.1026	0.0265	4.1600e-003	0.0306	0.0000	139.3192	139.3192	7.3900e-003	0.0000	139.5039

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.0900e-003	0.0523	0.0450	7.0000e-005		3.0500e-003	3.0500e-003		2.8100e-003	2.8100e-003	0.0000	6.1073	6.1073	1.8700e-003	0.0000	6.1540
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.0900e-003	0.0523	0.0450	7.0000e-005		3.0500e-003	3.0500e-003		2.8100e-003	2.8100e-003	0.0000	6.1073	6.1073	1.8700e-003	0.0000	6.1540

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3.6 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	3.4000e-004	2.9000e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5566	0.5566	2.0000e-005	0.0000	0.5572
Total	3.5000e-004	3.4000e-004	2.9000e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5566	0.5566	2.0000e-005	0.0000	0.5572

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.0900e-003	0.0523	0.0450	7.0000e-005		3.0500e-003	3.0500e-003		2.8100e-003	2.8100e-003	0.0000	6.1073	6.1073	1.8700e-003	0.0000	6.1540
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.0900e-003	0.0523	0.0450	7.0000e-005		3.0500e-003	3.0500e-003		2.8100e-003	2.8100e-003	0.0000	6.1073	6.1073	1.8700e-003	0.0000	6.1540

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3.6 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	3.4000e-004	2.9000e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5566	0.5566	2.0000e-005	0.0000	0.5572
Total	3.5000e-004	3.4000e-004	2.9000e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5566	0.5566	2.0000e-005	0.0000	0.5572

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2599					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1400e-003	0.0211	0.0195	3.0000e-005		1.5800e-003	1.5800e-003		1.5800e-003	1.5800e-003	0.0000	2.6809	2.6809	2.5000e-004	0.0000	2.6873
Total	0.2631	0.0211	0.0195	3.0000e-005		1.5800e-003	1.5800e-003		1.5800e-003	1.5800e-003	0.0000	2.6809	2.6809	2.5000e-004	0.0000	2.6873

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3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.6000e-004	9.2000e-004	7.9600e-003	2.0000e-005	1.7200e-003	1.0000e-005	1.7300e-003	4.6000e-004	1.0000e-005	4.7000e-004	0.0000	1.5285	1.5285	6.0000e-005	0.0000	1.5301
Total	9.6000e-004	9.2000e-004	7.9600e-003	2.0000e-005	1.7200e-003	1.0000e-005	1.7300e-003	4.6000e-004	1.0000e-005	4.7000e-004	0.0000	1.5285	1.5285	6.0000e-005	0.0000	1.5301

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2599					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1400e-003	0.0211	0.0195	3.0000e-005		1.5800e-003	1.5800e-003		1.5800e-003	1.5800e-003	0.0000	2.6809	2.6809	2.5000e-004	0.0000	2.6873
Total	0.2631	0.0211	0.0195	3.0000e-005		1.5800e-003	1.5800e-003		1.5800e-003	1.5800e-003	0.0000	2.6809	2.6809	2.5000e-004	0.0000	2.6873

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3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.6000e-004	9.2000e-004	7.9600e-003	2.0000e-005	1.7200e-003	1.0000e-005	1.7300e-003	4.6000e-004	1.0000e-005	4.7000e-004	0.0000	1.5285	1.5285	6.0000e-005	0.0000	1.5301
Total	9.6000e-004	9.2000e-004	7.9600e-003	2.0000e-005	1.7200e-003	1.0000e-005	1.7300e-003	4.6000e-004	1.0000e-005	4.7000e-004	0.0000	1.5285	1.5285	6.0000e-005	0.0000	1.5301

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1114					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2000e-003	8.2600e-003	8.2900e-003	1.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	1.1490	1.1490	1.0000e-004	0.0000	1.1514
Total	0.1126	8.2600e-003	8.2900e-003	1.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	1.1490	1.1490	1.0000e-004	0.0000	1.1514

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3.7 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	3.5000e-004	2.9900e-003	1.0000e-005	7.4000e-004	1.0000e-005	7.4000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6358	0.6358	2.0000e-005	0.0000	0.6364
Total	3.7000e-004	3.5000e-004	2.9900e-003	1.0000e-005	7.4000e-004	1.0000e-005	7.4000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6358	0.6358	2.0000e-005	0.0000	0.6364

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1114					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2000e-003	8.2600e-003	8.2900e-003	1.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	1.1490	1.1490	1.0000e-004	0.0000	1.1514
Total	0.1126	8.2600e-003	8.2900e-003	1.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	1.1490	1.1490	1.0000e-004	0.0000	1.1514

Palm & Nipomo Project - Preferred - San Luis Obispo County, Annual

3.7 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	3.5000e-004	2.9900e-003	1.0000e-005	7.4000e-004	1.0000e-005	7.4000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6358	0.6358	2.0000e-005	0.0000	0.6364
Total	3.7000e-004	3.5000e-004	2.9900e-003	1.0000e-005	7.4000e-004	1.0000e-005	7.4000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6358	0.6358	2.0000e-005	0.0000	0.6364

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Palm & Nipomo Project - Preferred - San Luis Obispo County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1315	0.4786	1.2636	2.8200e-003	0.2336	3.6500e-003	0.2372	0.0626	3.4300e-003	0.0660	0.0000	258.0053	258.0053	0.0126	0.0000	258.3198
Unmitigated	0.1315	0.4786	1.2636	2.8200e-003	0.2336	3.6500e-003	0.2372	0.0626	3.4300e-003	0.0660	0.0000	258.0053	258.0053	0.0126	0.0000	258.3198

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	80.00	12.30	5.25	135,697	135,697
Movie Theater (No Matinee)	306.00	571.20	471.75	485,758	485,758
Total	386.00	583.50	477.00	621,456	621,456

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4
Movie Theater (No Matinee)	13.00	5.00	5.00	1.80	79.20	19.00	66	17	17

4.4 Fleet Mix

Palm & Nipomo Project - Preferred - San Luis Obispo County, Annual

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Enclosed Parking with Elevator	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Movie Theater (No Matinee)	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	433.9123	433.9123	0.0196	4.0600e-003	435.6125
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	433.9123	433.9123	0.0196	4.0600e-003	435.6125
NaturalGas Mitigated	3.8500e-003	0.0350	0.0294	2.1000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	38.0783	38.0783	7.3000e-004	7.0000e-004	38.3045
NaturalGas Unmitigated	3.8500e-003	0.0350	0.0294	2.1000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	38.0783	38.0783	7.3000e-004	7.0000e-004	38.3045

Palm & Nipomo Project - Preferred - San Luis Obispo County, Annual

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	82250	4.4000e-004	4.0300e-003	3.3900e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	4.3892	4.3892	8.0000e-005	8.0000e-005	4.4153
Movie Theater (No Matinee)	631310	3.4000e-003	0.0310	0.0260	1.9000e-004		2.3500e-003	2.3500e-003		2.3500e-003	2.3500e-003	0.0000	33.6891	33.6891	6.5000e-004	6.2000e-004	33.8893
Total		3.8400e-003	0.0350	0.0294	2.1000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	38.0783	38.0783	7.3000e-004	7.0000e-004	38.3046

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	82250	4.4000e-004	4.0300e-003	3.3900e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	4.3892	4.3892	8.0000e-005	8.0000e-005	4.4153
Movie Theater (No Matinee)	631310	3.4000e-003	0.0310	0.0260	1.9000e-004		2.3500e-003	2.3500e-003		2.3500e-003	2.3500e-003	0.0000	33.6891	33.6891	6.5000e-004	6.2000e-004	33.8893
Total		3.8400e-003	0.0350	0.0294	2.1000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	38.0783	38.0783	7.3000e-004	7.0000e-004	38.3046

Palm & Nipomo Project - Preferred - San Luis Obispo County, Annual

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	1.19972e+006	349.0123	0.0158	3.2700e-003	350.3798
General Office Building	91100	26.5020	1.2000e-003	2.5000e-004	26.6059
Movie Theater (No Matinee)	200741	58.3979	2.6400e-003	5.5000e-004	58.6267
Total		433.9123	0.0196	4.0700e-003	435.6125

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	1.19972e+006	349.0123	0.0158	3.2700e-003	350.3798
General Office Building	91100	26.5020	1.2000e-003	2.5000e-004	26.6059
Movie Theater (No Matinee)	200741	58.3979	2.6400e-003	5.5000e-004	58.6267
Total		433.9123	0.0196	4.0700e-003	435.6125

6.0 Area Detail

Palm & Nipomo Project - Preferred - San Luis Obispo County, Annual

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1624	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0231	0.0231	6.0000e-005	0.0000	0.0246
Unmitigated	0.1624	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0231	0.0231	6.0000e-005	0.0000	0.0246

Palm & Nipomo Project - Preferred - San Luis Obispo County, Annual

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0371					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1241					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1200e-003	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0231	0.0231	6.0000e-005	0.0000	0.0246
Total	0.1624	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0231	0.0231	6.0000e-005	0.0000	0.0246

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0371					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1241					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1200e-003	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0231	0.0231	6.0000e-005	0.0000	0.0246
Total	0.1624	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0231	0.0231	6.0000e-005	0.0000	0.0246

7.0 Water Detail

Palm & Nipomo Project - Preferred - San Luis Obispo County, Annual

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	6.7432	0.1043	2.5100e-003	10.0987
Unmitigated	6.7432	0.1043	2.5100e-003	10.0987

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0.888669 / 0.544668	2.2354	0.0291	7.0000e-004	3.1707
Movie Theater (No Matinee)	2.30419 / 0.147076	4.5078	0.0753	1.8100e-003	6.9280
Total		6.7432	0.1043	2.5100e-003	10.0987

Palm & Nipomo Project - Preferred - San Luis Obispo County, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0.888669 / 0.544668	2.2354	0.0291	7.0000e-004	3.1707
Movie Theater (No Matinee)	2.30419 / 0.147076	4.5078	0.0753	1.8100e-003	6.9280
Total		6.7432	0.1043	2.5100e-003	10.0987

8.0 Waste Detail

8.1 Mitigation Measures Waste

Palm & Nipomo Project - Preferred - San Luis Obispo County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.9439	0.0558	0.0000	2.3385
Unmitigated	0.9439	0.0558	0.0000	2.3385

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	4.65	0.9439	0.0558	0.0000	2.3385
Total		0.9439	0.0558	0.0000	2.3385

Palm & Nipomo Project - Preferred - San Luis Obispo County, Annual

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	4.65	0.9439	0.0558	0.0000	2.3385
Total		0.9439	0.0558	0.0000	2.3385

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Palm & Nipomo Project - Preferred - San Luis Obispo County, Annual

Greenhouse Gas Emission Worksheet
N2O Mobile Emissions

Nipomo Palm - Preferred Project

From CalEEMod:

Annual VMT: 621,456

Vehicle Type	Percent Type	CH4 Emission Factor (g/mile)*	CH4 Emission (g/mile)**	N2O Emission Factor (g/mile)*	N2O Emission (g/mile)**
Light Auto	56.0%	0.04	0.0224	0.04	0.0224
Light Truck < 3750 lbs	3.1%	0.05	0.00155	0.06	0.00186
Light Truck 3751-5750 lbs	20.0%	0.05	0.01	0.06	0.012
Med Truck 5751-8500 lbs	13.0%	0.12	0.0156	0.2	0.026
Lite-Heavy Truck 8501-10,000 lbs	3.1%	0.12	0.00372	0.2	0.0062
Lite-Heavy Truck 10,001-14,000 lbs	0.7%	0.09	0.00063	0.125	0.000875
Med-Heavy Truck 14,001-33,000 lbs	1.3%	0.06	0.00078	0.05	0.00065
Heavy-Heavy Truck 33,001-60,000 lbs	1.9%	0.06	0.00114	0.05	0.00095
Other Bus	0.2%	0.06	0.00012	0.05	0.0001
Urban Bus	0.1%	0.06	0.00006	0.05	0.00005
Motorcycle	0.5%	0.09	0.00045	0.01	0.00005
School Bus	0.0%	0.06	0	0.05	0
Motor Home	0.1%	0.09	0.00009	0.125	0.000125
Total	100.0%		0.05654		0.07126

Total Emissions (metric tons) =

Emission Factor by Vehicle Mix (g/mi) x Annual VMT(mi) x 0.000001 metric tons/g

Conversion to Carbon Dioxide Equivalency (CO2e) Units based on Global Warming Potential (GWP)

CH4 21 GWP
 N2O 310 GWP
 1 ton (short, US) = 0.90718474 metric ton

Annual Mobile Emissions:

	Total Emissions	Total CO2e units
N2O Emissions:	0.0443 metric tons N2O	13.73 metric tons CO2e
Project Total:		13.73 metric tons CO2e

References

* from Table C.4: Methane and Nitrous Oxide Emission Factors for Mobile Sources by Vehicle and Fuel Type (g/mile).
 in California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.
 Assume Model year 2000-present, gasoline fueled.

** Source: California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

Palm & Nipomo Project - Alternative 1
San Luis Obispo County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	2.50	1000sqft	0.00	2,500.00	0
Enclosed Parking with Elevator	445.00	Space	1.40	178,000.00	0
Movie Theater (No Matinee)	255.00	Seat	0.00	23,841.00	0
Apartments Mid Rise	4.00	Dwelling Unit	0.00	4,000.00	11

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.2	Precipitation Freq (Days)	44
Climate Zone	4			Operational Year	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

Project Characteristics - Project Alternative 1

Land Use - Total Lot Acreage = 1.4 based on Project Description, Theater square footage based on PD. Alt 1 replaces 2.5ksf of Commercial Office with 2nd floor residential units.

Construction Phase - Extended arch coating length to 30 days.

Demolition - Demo = 7,700 sf

Vehicle Trips - WkDy Trip Rate based on applicant provided traffic info. Parking Garage (0) would not generate trips

Road Dust - SLO County APCD- CARB

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	30.00
tblLandUse	BuildingSpaceSquareFeet	5,737.50	23,841.00
tblLandUse	LandUseSquareFeet	5,737.50	23,841.00
tblLandUse	LotAcreage	0.06	0.00
tblLandUse	LotAcreage	4.00	1.40
tblLandUse	LotAcreage	0.13	0.00
tblLandUse	LotAcreage	0.11	0.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblVehicleTrips	WD_TR	11.03	16.00
tblVehicleTrips	WD_TR	1.76	1.20

2.0 Emissions Summary

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9511	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003	0.0000	0.7480	0.7480	9.9000e-004	0.0000	0.7728
Energy	0.0212	0.1918	0.1565	1.1600e-003		0.0146	0.0146		0.0146	0.0146		231.0108	231.0108	4.4300e-003	4.2400e-003	232.3836
Mobile	1.1035	3.8845	10.5857	0.0227	1.9366	0.0298	1.9664	0.5176	0.0281	0.5457		2,280.4879	2,280.4879	0.1147		2,283.3562
Total	2.0758	4.0808	11.1455	0.0238	1.9366	0.0465	1.9831	0.5176	0.0448	0.5624	0.0000	2,512.2466	2,512.2466	0.1202	4.2400e-003	2,516.5125

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9511	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003	0.0000	0.7480	0.7480	9.9000e-004	0.0000	0.7728
Energy	0.0212	0.1918	0.1565	1.1600e-003		0.0146	0.0146		0.0146	0.0146		231.0108	231.0108	4.4300e-003	4.2400e-003	232.3836
Mobile	1.1035	3.8845	10.5857	0.0227	1.9366	0.0298	1.9664	0.5176	0.0281	0.5457		2,280.4879	2,280.4879	0.1147		2,283.3562
Total	2.0758	4.0808	11.1455	0.0238	1.9366	0.0465	1.9831	0.5176	0.0448	0.5624	0.0000	2,512.2466	2,512.2466	0.1202	4.2400e-003	2,516.5125

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/5/2018	2/1/2018	5	20	
2	Site Preparation	Site Preparation	2/2/2018	2/5/2018	5	2	
3	Grading	Grading	2/6/2018	2/9/2018	5	4	
4	Building Construction	Building Construction	2/10/2018	11/16/2018	5	200	
5	Paving	Paving	11/17/2018	11/30/2018	5	10	
6	Architectural Coating	Architectural Coating	12/1/2018	1/11/2019	5	30	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 1.4

Residential Indoor: 8,100; Residential Outdoor: 2,700; Non-Residential Indoor: 39,512; Non-Residential Outdoor: 13,171; Striped Parking Area: 10,680 (Architectural Coating – sqft)

OffRoad Equipment

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	35.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	88.00	34.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3912	0.0000	0.3912	0.0592	0.0000	0.0592			0.0000			0.0000
Off-Road	2.4838	24.3641	15.1107	0.0241		1.4365	1.4365		1.3429	1.3429		2,391.1659	2,391.1659	0.6058		2,406.3105
Total	2.4838	24.3641	15.1107	0.0241	0.3912	1.4365	1.8277	0.0592	1.3429	1.4021		2,391.1659	2,391.1659	0.6058		2,406.3105

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

3.2 Demolition - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0210	0.6463	0.1531	1.3900e-003	0.0305	4.8100e-003	0.0353	8.3600e-003	4.6000e-003	0.0130		149.8063	149.8063	8.6500e-003		150.0225
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442
Total	0.0983	0.7146	0.7375	2.6100e-003	0.1590	5.6900e-003	0.1647	0.0425	5.4100e-003	0.0479		271.5242	271.5242	0.0137		271.8667

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3912	0.0000	0.3912	0.0592	0.0000	0.0592			0.0000			0.0000
Off-Road	2.4838	24.3641	15.1107	0.0241		1.4365	1.4365		1.3429	1.3429	0.0000	2,391.1659	2,391.1659	0.6058		2,406.3105
Total	2.4838	24.3641	15.1107	0.0241	0.3912	1.4365	1.8277	0.0592	1.3429	1.4021	0.0000	2,391.1659	2,391.1659	0.6058		2,406.3105

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0210	0.6463	0.1531	1.3900e-003	0.0305	4.8100e-003	0.0353	8.3600e-003	4.6000e-003	0.0130		149.8063	149.8063	8.6500e-003		150.0225
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442
Total	0.0983	0.7146	0.7375	2.6100e-003	0.1590	5.6900e-003	0.1647	0.0425	5.4100e-003	0.0479		271.5242	271.5242	0.0137		271.8667

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.8061	20.7472	8.0808	0.0172		0.9523	0.9523		0.8761	0.8761		1,735.3630	1,735.3630	0.5402		1,748.8690
Total	1.8061	20.7472	8.0808	0.0172	5.7996	0.9523	6.7518	2.9537	0.8761	3.8298		1,735.3630	1,735.3630	0.5402		1,748.8690

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810
Total	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.8061	20.7472	8.0808	0.0172		0.9523	0.9523		0.8761	0.8761	0.0000	1,735.3630	1,735.3630	0.5402		1,748.8690
Total	1.8061	20.7472	8.0808	0.0172	5.7996	0.9523	6.7518	2.9537	0.8761	3.8298	0.0000	1,735.3630	1,735.3630	0.5402		1,748.8690

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

3.3 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810
Total	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4972	17.0666	6.7630	0.0141		0.7947	0.7947		0.7311	0.7311		1,421.2605	1,421.2605	0.4425		1,432.3219
Total	1.4972	17.0666	6.7630	0.0141	4.9143	0.7947	5.7090	2.5256	0.7311	3.2568		1,421.2605	1,421.2605	0.4425		1,432.3219

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

3.4 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810
Total	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4972	17.0666	6.7630	0.0141		0.7947	0.7947		0.7311	0.7311	0.0000	1,421.2605	1,421.2605	0.4425		1,432.3219
Total	1.4972	17.0666	6.7630	0.0141	4.9143	0.7947	5.7090	2.5256	0.7311	3.2568	0.0000	1,421.2605	1,421.2605	0.4425		1,432.3219

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003			74.9810
Total	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003			74.9810

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.8389	2,030.8389	0.4088			2,041.0596
Total	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.8389	2,030.8389	0.4088			2,041.0596

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1881	4.0247	1.4528	6.7100e-003	0.1578	0.0384	0.1962	0.0454	0.0367	0.0822		711.8927	711.8927	0.0497		713.1355
Worker	0.5231	0.4623	3.9554	8.2900e-003	0.8700	5.9500e-003	0.8759	0.2307	5.5000e-003	0.2362		823.9364	823.9364	0.0342		824.7914
Total	0.7112	4.4869	5.4081	0.0150	1.0278	0.0443	1.0721	0.2762	0.0422	0.3184		1,535.8291	1,535.8291	0.0839		1,537.9269

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.8389	2,030.8389	0.4088		2,041.0596
Total	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.8389	2,030.8389	0.4088		2,041.0596

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1881	4.0247	1.4528	6.7100e-003	0.1578	0.0384	0.1962	0.0454	0.0367	0.0822		711.8927	711.8927	0.0497		713.1355
Worker	0.5231	0.4623	3.9554	8.2900e-003	0.8700	5.9500e-003	0.8759	0.2307	5.5000e-003	0.2362		823.9364	823.9364	0.0342		824.7914
Total	0.7112	4.4869	5.4081	0.0150	1.0278	0.0443	1.0721	0.2762	0.0422	0.3184		1,535.8291	1,535.8291	0.0839		1,537.9269

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618		1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618		1,346.4360	1,346.4360	0.4113		1,356.7186

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

3.6 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442
Total	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618	0.0000	1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618	0.0000	1,346.4360	1,346.4360	0.4113		1,356.7186

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

3.6 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442
Total	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	26.9954					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	27.2940	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1070	0.0946	0.8091	1.7000e-003	0.1780	1.2200e-003	0.1792	0.0472	1.1200e-003	0.0483		168.5325	168.5325	7.0000e-003		168.7073
Total	0.1070	0.0946	0.8091	1.7000e-003	0.1780	1.2200e-003	0.1792	0.0472	1.1200e-003	0.0483		168.5325	168.5325	7.0000e-003		168.7073

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	26.9954					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171
Total	27.2940	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1070	0.0946	0.8091	1.7000e-003	0.1780	1.2200e-003	0.1792	0.0472	1.1200e-003	0.0483		168.5325	168.5325	7.0000e-003		168.7073
Total	0.1070	0.0946	0.8091	1.7000e-003	0.1780	1.2200e-003	0.1792	0.0472	1.1200e-003	0.0483		168.5325	168.5325	7.0000e-003		168.7073

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	26.9954					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	27.2618	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

3.7 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0962	0.0828	0.7075	1.6400e-003	0.1780	1.1800e-003	0.1791	0.0472	1.0900e-003	0.0483		163.5759	163.5759	6.1400e-003		163.7294
Total	0.0962	0.0828	0.7075	1.6400e-003	0.1780	1.1800e-003	0.1791	0.0472	1.0900e-003	0.0483		163.5759	163.5759	6.1400e-003		163.7294

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	26.9954					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	27.2618	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

3.7 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0962	0.0828	0.7075	1.6400e-003	0.1780	1.1800e-003	0.1791	0.0472	1.0900e-003	0.0483		163.5759	163.5759	6.1400e-003		163.7294
Total	0.0962	0.0828	0.7075	1.6400e-003	0.1780	1.1800e-003	0.1791	0.0472	1.0900e-003	0.0483		163.5759	163.5759	6.1400e-003		163.7294

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.1035	3.8845	10.5857	0.0227	1.9366	0.0298	1.9664	0.5176	0.0281	0.5457		2,280.4879	2,280.4879	0.1147		2,283.3562
Unmitigated	1.1035	3.8845	10.5857	0.0227	1.9366	0.0298	1.9664	0.5176	0.0281	0.5457		2,280.4879	2,280.4879	0.1147		2,283.3562

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	26.60	25.56	23.44	66,080	66,080
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	40.00	6.15	2.63	67,849	67,849
Movie Theater (No Matinee)	306.00	571.20	471.75	485,758	485,758
Total	372.60	602.91	497.82	619,687	619,687

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
Enclosed Parking with Elevator	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4
Movie Theater (No Matinee)	13.00	5.00	5.00	1.80	79.20	19.00	66	17	17

4.4 Fleet Mix

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Enclosed Parking with Elevator	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Movie Theater (No Matinee)	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Apartments Mid Rise	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0212	0.1918	0.1565	1.1600e-003		0.0146	0.0146		0.0146	0.0146		231.0108	231.0108	4.4300e-003	4.2400e-003	232.3836
NaturalGas Unmitigated	0.0212	0.1918	0.1565	1.1600e-003		0.0146	0.0146		0.0146	0.0146		231.0108	231.0108	4.4300e-003	4.2400e-003	232.3836

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	121.305	1.3100e-003	0.0112	4.7600e-003	7.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004		14.2712	14.2712	2.7000e-004	2.6000e-004	14.3560
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	112.671	1.2200e-003	0.0111	9.2800e-003	7.0000e-005		8.4000e-004	8.4000e-004		8.4000e-004	8.4000e-004		13.2554	13.2554	2.5000e-004	2.4000e-004	13.3342
Movie Theater (No Matinee)	1729.62	0.0187	0.1696	0.1424	1.0200e-003		0.0129	0.0129		0.0129	0.0129		203.4842	203.4842	3.9000e-003	3.7300e-003	204.6934
Total		0.0212	0.1918	0.1565	1.1600e-003		0.0146	0.0146		0.0146	0.0146		231.0108	231.0108	4.4200e-003	4.2300e-003	232.3836

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

5.2 Energy by Land Use - Natural Gas

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	0.121305	1.3100e-003	0.0112	4.7600e-003	7.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004		14.2712	14.2712	2.7000e-004	2.6000e-004	14.3560
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0.112671	1.2200e-003	0.0111	9.2800e-003	7.0000e-005		8.4000e-004	8.4000e-004		8.4000e-004	8.4000e-004		13.2554	13.2554	2.5000e-004	2.4000e-004	13.3342
Movie Theater (No Matinee)	1.72962	0.0187	0.1696	0.1424	1.0200e-003		0.0129	0.0129		0.0129	0.0129		203.4842	203.4842	3.9000e-003	3.7300e-003	204.6934
Total		0.0212	0.1918	0.1565	1.1600e-003		0.0146	0.0146		0.0146	0.0146		231.0108	231.0108	4.4200e-003	4.2300e-003	232.3836

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.9511	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003	0.0000	0.7480	0.7480	9.9000e-004	0.0000	0.7728
Unmitigated	0.9511	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003	0.0000	0.7480	0.7480	9.9000e-004	0.0000	0.7728

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2219					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7123					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0169	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003		0.7480	0.7480	9.9000e-004		0.7728
Total	0.9511	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003	0.0000	0.7480	0.7480	9.9000e-004	0.0000	0.7728

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2219					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7123					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0169	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003		0.7480	0.7480	9.9000e-004		0.7728
Total	0.9511	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003	0.0000	0.7480	0.7480	9.9000e-004	0.0000	0.7728

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Stationary Equipment

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Winter

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

Palm & Nipomo Project - Alternative 1
San Luis Obispo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	2.50	1000sqft	0.00	2,500.00	0
Enclosed Parking with Elevator	445.00	Space	1.40	178,000.00	0
Movie Theater (No Matinee)	255.00	Seat	0.00	23,841.00	0
Apartments Mid Rise	4.00	Dwelling Unit	0.00	4,000.00	11

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.2	Precipitation Freq (Days)	44
Climate Zone	4			Operational Year	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

Project Characteristics - Project Alternative 1

Land Use - Total Lot Acreage = 1.4 based on Project Description, Theater square footage based on PD. Alt 1 replaces 2.5ksf of Commercial Office with 2nd floor residential units.

Construction Phase - Extended arch coating length to 30 days.

Demolition - Demo = 7,700 sf

Vehicle Trips - WkDy Trip Rate based on applicant provided traffic info. Parking Garage (0) would not generate trips

Road Dust - SLO County APCD- CARB

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	30.00
tblLandUse	BuildingSpaceSquareFeet	5,737.50	23,841.00
tblLandUse	LandUseSquareFeet	5,737.50	23,841.00
tblLandUse	LotAcreage	0.06	0.00
tblLandUse	LotAcreage	4.00	1.40
tblLandUse	LotAcreage	0.13	0.00
tblLandUse	LotAcreage	0.11	0.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblVehicleTrips	WD_TR	11.03	16.00
tblVehicleTrips	WD_TR	1.76	1.20

2.0 Emissions Summary

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9511	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003	0.0000	0.7480	0.7480	9.9000e-004	0.0000	0.7728
Energy	0.0212	0.1918	0.1565	1.1600e-003		0.0146	0.0146		0.0146	0.0146		231.0108	231.0108	4.4300e-003	4.2400e-003	232.3836
Mobile	1.1360	3.7626	9.9511	0.0236	1.9366	0.0294	1.9659	0.5176	0.0277	0.5453		2,376.5483	2,376.5483	0.1110		2,379.3230
Total	2.1083	3.9589	10.5109	0.0248	1.9366	0.0461	1.9827	0.5176	0.0444	0.5620	0.0000	2,608.3071	2,608.3071	0.1164	4.2400e-003	2,612.4793

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9511	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003	0.0000	0.7480	0.7480	9.9000e-004	0.0000	0.7728
Energy	0.0212	0.1918	0.1565	1.1600e-003		0.0146	0.0146		0.0146	0.0146		231.0108	231.0108	4.4300e-003	4.2400e-003	232.3836
Mobile	1.1360	3.7626	9.9511	0.0236	1.9366	0.0294	1.9659	0.5176	0.0277	0.5453		2,376.5483	2,376.5483	0.1110		2,379.3230
Total	2.1083	3.9589	10.5109	0.0248	1.9366	0.0461	1.9827	0.5176	0.0444	0.5620	0.0000	2,608.3071	2,608.3071	0.1164	4.2400e-003	2,612.4793

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/5/2018	2/1/2018	5	20	
2	Site Preparation	Site Preparation	2/2/2018	2/5/2018	5	2	
3	Grading	Grading	2/6/2018	2/9/2018	5	4	
4	Building Construction	Building Construction	2/10/2018	11/16/2018	5	200	
5	Paving	Paving	11/17/2018	11/30/2018	5	10	
6	Architectural Coating	Architectural Coating	12/1/2018	1/11/2019	5	30	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 1.4

Residential Indoor: 8,100; Residential Outdoor: 2,700; Non-Residential Indoor: 39,512; Non-Residential Outdoor: 13,171; Striped Parking Area: 10,680 (Architectural Coating – sqft)

OffRoad Equipment

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	35.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	88.00	34.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3912	0.0000	0.3912	0.0592	0.0000	0.0592			0.0000			0.0000
Off-Road	2.4838	24.3641	15.1107	0.0241		1.4365	1.4365		1.3429	1.3429		2,391.1659	2,391.1659	0.6058		2,406.3105
Total	2.4838	24.3641	15.1107	0.0241	0.3912	1.4365	1.8277	0.0592	1.3429	1.4021		2,391.1659	2,391.1659	0.6058		2,406.3105

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

3.2 Demolition - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0205	0.6409	0.1438	1.4100e-003	0.0305	4.7200e-003	0.0352	8.3600e-003	4.5200e-003	0.0129		151.8744	151.8744	8.3600e-003		152.0834
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092
Total	0.0885	0.7011	0.7374	2.6900e-003	0.1590	5.6000e-003	0.1646	0.0425	5.3300e-003	0.0478		279.5544	279.5544	0.0135		279.8926

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3912	0.0000	0.3912	0.0592	0.0000	0.0592			0.0000			0.0000
Off-Road	2.4838	24.3641	15.1107	0.0241		1.4365	1.4365		1.3429	1.3429	0.0000	2,391.1659	2,391.1659	0.6058		2,406.3105
Total	2.4838	24.3641	15.1107	0.0241	0.3912	1.4365	1.8277	0.0592	1.3429	1.4021	0.0000	2,391.1659	2,391.1659	0.6058		2,406.3105

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0205	0.6409	0.1438	1.4100e-003	0.0305	4.7200e-003	0.0352	8.3600e-003	4.5200e-003	0.0129		151.8744	151.8744	8.3600e-003		152.0834
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092
Total	0.0885	0.7011	0.7374	2.6900e-003	0.1590	5.6000e-003	0.1646	0.0425	5.3300e-003	0.0478		279.5544	279.5544	0.0135		279.8926

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.8061	20.7472	8.0808	0.0172		0.9523	0.9523		0.8761	0.8761		1,735.3630	1,735.3630	0.5402		1,748.8690
Total	1.8061	20.7472	8.0808	0.0172	5.7996	0.9523	6.7518	2.9537	0.8761	3.8298		1,735.3630	1,735.3630	0.5402		1,748.8690

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518
Total	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.8061	20.7472	8.0808	0.0172		0.9523	0.9523		0.8761	0.8761	0.0000	1,735.3630	1,735.3630	0.5402		1,748.8690
Total	1.8061	20.7472	8.0808	0.0172	5.7996	0.9523	6.7518	2.9537	0.8761	3.8298	0.0000	1,735.3630	1,735.3630	0.5402		1,748.8690

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

3.3 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518
Total	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4972	17.0666	6.7630	0.0141		0.7947	0.7947		0.7311	0.7311		1,421.2605	1,421.2605	0.4425		1,432.3219
Total	1.4972	17.0666	6.7630	0.0141	4.9143	0.7947	5.7090	2.5256	0.7311	3.2568		1,421.2605	1,421.2605	0.4425		1,432.3219

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

3.4 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518
Total	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4972	17.0666	6.7630	0.0141		0.7947	0.7947		0.7311	0.7311	0.0000	1,421.2605	1,421.2605	0.4425		1,432.3219
Total	1.4972	17.0666	6.7630	0.0141	4.9143	0.7947	5.7090	2.5256	0.7311	3.2568	0.0000	1,421.2605	1,421.2605	0.4425		1,432.3219

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518
Total	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.8389	2,030.8389	0.4088		2,041.0596
Total	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.8389	2,030.8389	0.4088		2,041.0596

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1788	4.0347	1.2972	6.9100e-003	0.1578	0.0374	0.1952	0.0454	0.0358	0.0813		732.7384	732.7384	0.0465		733.9009
Worker	0.4604	0.4074	4.0182	8.6900e-003	0.8700	5.9500e-003	0.8759	0.2307	5.5000e-003	0.2362		864.2950	864.2950	0.0350		865.1698
Total	0.6392	4.4421	5.3154	0.0156	1.0278	0.0434	1.0711	0.2762	0.0413	0.3175		1,597.0334	1,597.0334	0.0815		1,599.0708

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.8389	2,030.8389	0.4088		2,041.0596
Total	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.8389	2,030.8389	0.4088		2,041.0596

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1788	4.0347	1.2972	6.9100e-003	0.1578	0.0374	0.1952	0.0454	0.0358	0.0813		732.7384	732.7384	0.0465		733.9009
Worker	0.4604	0.4074	4.0182	8.6900e-003	0.8700	5.9500e-003	0.8759	0.2307	5.5000e-003	0.2362		864.2950	864.2950	0.0350		865.1698
Total	0.6392	4.4421	5.3154	0.0156	1.0278	0.0434	1.0711	0.2762	0.0413	0.3175		1,597.0334	1,597.0334	0.0815		1,599.0708

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618		1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618		1,346.4360	1,346.4360	0.4113		1,356.7186

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

3.6 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092
Total	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618	0.0000	1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618	0.0000	1,346.4360	1,346.4360	0.4113		1,356.7186

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

3.6 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092
Total	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	26.9954					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	27.2940	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0942	0.0833	0.8219	1.7800e-003	0.1780	1.2200e-003	0.1792	0.0472	1.1200e-003	0.0483		176.7876	176.7876	7.1600e-003		176.9666
Total	0.0942	0.0833	0.8219	1.7800e-003	0.1780	1.2200e-003	0.1792	0.0472	1.1200e-003	0.0483		176.7876	176.7876	7.1600e-003		176.9666

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	26.9954					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171
Total	27.2940	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0942	0.0833	0.8219	1.7800e-003	0.1780	1.2200e-003	0.1792	0.0472	1.1200e-003	0.0483		176.7876	176.7876	7.1600e-003		176.9666
Total	0.0942	0.0833	0.8219	1.7800e-003	0.1780	1.2200e-003	0.1792	0.0472	1.1200e-003	0.0483		176.7876	176.7876	7.1600e-003		176.9666

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	26.9954					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	27.2618	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

3.7 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0846	0.0729	0.7233	1.7200e-003	0.1780	1.1800e-003	0.1791	0.0472	1.0900e-003	0.0483		171.6027	171.6027	6.3000e-003		171.7603
Total	0.0846	0.0729	0.7233	1.7200e-003	0.1780	1.1800e-003	0.1791	0.0472	1.0900e-003	0.0483		171.6027	171.6027	6.3000e-003		171.7603

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	26.9954					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	27.2618	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

3.7 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0846	0.0729	0.7233	1.7200e-003	0.1780	1.1800e-003	0.1791	0.0472	1.0900e-003	0.0483		171.6027	171.6027	6.3000e-003		171.7603
Total	0.0846	0.0729	0.7233	1.7200e-003	0.1780	1.1800e-003	0.1791	0.0472	1.0900e-003	0.0483		171.6027	171.6027	6.3000e-003		171.7603

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.1360	3.7626	9.9511	0.0236	1.9366	0.0294	1.9659	0.5176	0.0277	0.5453		2,376.5483	2,376.5483	0.1110		2,379.3230
Unmitigated	1.1360	3.7626	9.9511	0.0236	1.9366	0.0294	1.9659	0.5176	0.0277	0.5453		2,376.5483	2,376.5483	0.1110		2,379.3230

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	26.60	25.56	23.44	66,080	66,080
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	40.00	6.15	2.63	67,849	67,849
Movie Theater (No Matinee)	306.00	571.20	471.75	485,758	485,758
Total	372.60	602.91	497.82	619,687	619,687

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
Enclosed Parking with Elevator	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4
Movie Theater (No Matinee)	13.00	5.00	5.00	1.80	79.20	19.00	66	17	17

4.4 Fleet Mix

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Enclosed Parking with Elevator	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Movie Theater (No Matinee)	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Apartments Mid Rise	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0212	0.1918	0.1565	1.1600e-003		0.0146	0.0146		0.0146	0.0146		231.0108	231.0108	4.4300e-003	4.2400e-003	232.3836
NaturalGas Unmitigated	0.0212	0.1918	0.1565	1.1600e-003		0.0146	0.0146		0.0146	0.0146		231.0108	231.0108	4.4300e-003	4.2400e-003	232.3836

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	121.305	1.3100e-003	0.0112	4.7600e-003	7.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004		14.2712	14.2712	2.7000e-004	2.6000e-004	14.3560
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	112.671	1.2200e-003	0.0111	9.2800e-003	7.0000e-005		8.4000e-004	8.4000e-004		8.4000e-004	8.4000e-004		13.2554	13.2554	2.5000e-004	2.4000e-004	13.3342
Movie Theater (No Matinee)	1729.62	0.0187	0.1696	0.1424	1.0200e-003		0.0129	0.0129		0.0129	0.0129		203.4842	203.4842	3.9000e-003	3.7300e-003	204.6934
Total		0.0212	0.1918	0.1565	1.1600e-003		0.0146	0.0146		0.0146	0.0146		231.0108	231.0108	4.4200e-003	4.2300e-003	232.3836

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	0.121305	1.3100e-003	0.0112	4.7600e-003	7.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004		14.2712	14.2712	2.7000e-004	2.6000e-004	14.3560
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0.112671	1.2200e-003	0.0111	9.2800e-003	7.0000e-005		8.4000e-004	8.4000e-004		8.4000e-004	8.4000e-004		13.2554	13.2554	2.5000e-004	2.4000e-004	13.3342
Movie Theater (No Matinee)	1.72962	0.0187	0.1696	0.1424	1.0200e-003		0.0129	0.0129		0.0129	0.0129		203.4842	203.4842	3.9000e-003	3.7300e-003	204.6934
Total		0.0212	0.1918	0.1565	1.1600e-003		0.0146	0.0146		0.0146	0.0146		231.0108	231.0108	4.4200e-003	4.2300e-003	232.3836

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.9511	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003	0.0000	0.7480	0.7480	9.9000e-004	0.0000	0.7728
Unmitigated	0.9511	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003	0.0000	0.7480	0.7480	9.9000e-004	0.0000	0.7728

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2219					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7123					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0169	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003		0.7480	0.7480	9.9000e-004		0.7728
Total	0.9511	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003	0.0000	0.7480	0.7480	9.9000e-004	0.0000	0.7728

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2219					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7123					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0169	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003		0.7480	0.7480	9.9000e-004		0.7728
Total	0.9511	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003	0.0000	0.7480	0.7480	9.9000e-004	0.0000	0.7728

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Summer

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Annual

Palm & Nipomo Project - Alternative 1
San Luis Obispo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	2.50	1000sqft	0.00	2,500.00	0
Enclosed Parking with Elevator	445.00	Space	1.40	178,000.00	0
Movie Theater (No Matinee)	255.00	Seat	0.00	23,841.00	0
Apartments Mid Rise	4.00	Dwelling Unit	0.00	4,000.00	11

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.2	Precipitation Freq (Days)	44
Climate Zone	4			Operational Year	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Annual

Project Characteristics - Project Alternative 1

Land Use - Total Lot Acreage = 1.4 based on Project Description, Theater square footage based on PD. Alt 1 replaces 2.5ksf of Commercial Office with 2nd floor residential units.

Construction Phase - Extended arch coating length to 30 days.

Demolition - Demo = 7,700 sf

Vehicle Trips - WkDy Trip Rate based on applicant provided traffic info. Parking Garage (0) would not generate trips

Road Dust - SLO County APCD- CARB

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	30.00
tblLandUse	BuildingSpaceSquareFeet	5,737.50	23,841.00
tblLandUse	LandUseSquareFeet	5,737.50	23,841.00
tblLandUse	LotAcreage	0.06	0.00
tblLandUse	LotAcreage	4.00	1.40
tblLandUse	LotAcreage	0.13	0.00
tblLandUse	LotAcreage	0.11	0.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblVehicleTrips	WD_TR	11.03	16.00
tblVehicleTrips	WD_TR	1.76	1.20

2.0 Emissions Summary

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-5-2018	4-4-2018	0.8218	0.8218
2	4-5-2018	7-4-2018	0.8158	0.8158
3	7-5-2018	10-4-2018	0.8249	0.8249
4	10-5-2018	1-4-2019	0.8138	0.8138
5	1-5-2019	4-4-2019	0.0732	0.0732
		Highest	0.8249	0.8249

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1733	7.4000e-004	0.0665	0.0000		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	0.1120	0.1120	1.5000e-004	0.0000	0.1157
Energy	3.8600e-003	0.0350	0.0286	2.1000e-004		2.6700e-003	2.6700e-003		2.6700e-003	2.6700e-003	0.0000	464.0405	464.0405	0.0200	4.6800e-003	465.9361
Mobile	0.1306	0.4759	1.2569	2.8100e-003	0.2329	3.6300e-003	0.2366	0.0624	3.4200e-003	0.0658	0.0000	257.1256	257.1256	0.0125	0.0000	257.4385
Waste						0.0000	0.0000		0.0000	0.0000	0.8465	0.0000	0.8465	0.0500	0.0000	2.0971
Water						0.0000	0.0000		0.0000	0.0000	0.9547	5.3311	6.2857	0.0983	2.3700e-003	9.4479
Total	0.3077	0.5117	1.3520	3.0200e-003	0.2329	6.6400e-003	0.2396	0.0624	6.4300e-003	0.0688	1.8011	726.6092	728.4103	0.1810	7.0500e-003	735.0353

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Annual

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1733	7.4000e-004	0.0665	0.0000		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	0.1120	0.1120	1.5000e-004	0.0000	0.1157
Energy	3.8600e-003	0.0350	0.0286	2.1000e-004		2.6700e-003	2.6700e-003		2.6700e-003	2.6700e-003	0.0000	464.0405	464.0405	0.0200	4.6800e-003	465.9361
Mobile	0.1306	0.4759	1.2569	2.8100e-003	0.2329	3.6300e-003	0.2366	0.0624	3.4200e-003	0.0658	0.0000	257.1256	257.1256	0.0125	0.0000	257.4385
Waste						0.0000	0.0000		0.0000	0.0000	0.8465	0.0000	0.8465	0.0500	0.0000	2.0971
Water						0.0000	0.0000		0.0000	0.0000	0.9547	5.3311	6.2857	0.0983	2.3700e-003	9.4479
Total	0.3077	0.5117	1.3520	3.0200e-003	0.2329	6.6400e-003	0.2396	0.0624	6.4300e-003	0.0688	1.8011	726.6092	728.4103	0.1810	7.0500e-003	735.0353

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/5/2018	2/1/2018	5	20	
2	Site Preparation	Site Preparation	2/2/2018	2/5/2018	5	2	
3	Grading	Grading	2/6/2018	2/9/2018	5	4	
4	Building Construction	Building Construction	2/10/2018	11/16/2018	5	200	
5	Paving	Paving	11/17/2018	11/30/2018	5	10	
6	Architectural Coating	Architectural Coating	12/1/2018	1/11/2019	5	30	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 1.4

Residential Indoor: 8,100; Residential Outdoor: 2,700; Non-Residential Indoor: 39,512; Non-Residential Outdoor: 13,171; Striped Parking Area: 10,680 (Architectural Coating – sqft)

OffRoad Equipment

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Annual

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	35.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	88.00	34.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.9100e-003	0.0000	3.9100e-003	5.9000e-004	0.0000	5.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2436	0.1511	2.4000e-004		0.0144	0.0144		0.0134	0.0134	0.0000	21.6923	21.6923	5.5000e-003	0.0000	21.8297
Total	0.0248	0.2436	0.1511	2.4000e-004	3.9100e-003	0.0144	0.0183	5.9000e-004	0.0134	0.0140	0.0000	21.6923	21.6923	5.5000e-003	0.0000	21.8297

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Annual

3.2 Demolition - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1000e-004	6.5400e-003	1.4800e-003	1.0000e-005	3.0000e-004	5.0000e-005	3.5000e-004	8.0000e-005	5.0000e-005	1.3000e-004	0.0000	1.3699	1.3699	8.0000e-005	0.0000	1.3718
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-004	6.7000e-004	5.8000e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1132	1.1132	5.0000e-005	0.0000	1.1143
Total	9.1000e-004	7.2100e-003	7.2800e-003	2.0000e-005	1.5500e-003	6.0000e-005	1.6100e-003	4.1000e-004	6.0000e-005	4.7000e-004	0.0000	2.4831	2.4831	1.3000e-004	0.0000	2.4862

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.9100e-003	0.0000	3.9100e-003	5.9000e-004	0.0000	5.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2436	0.1511	2.4000e-004		0.0144	0.0144		0.0134	0.0134	0.0000	21.6923	21.6923	5.5000e-003	0.0000	21.8297
Total	0.0248	0.2436	0.1511	2.4000e-004	3.9100e-003	0.0144	0.0183	5.9000e-004	0.0134	0.0140	0.0000	21.6923	21.6923	5.5000e-003	0.0000	21.8297

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Annual

3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1000e-004	6.5400e-003	1.4800e-003	1.0000e-005	3.0000e-004	5.0000e-005	3.5000e-004	8.0000e-005	5.0000e-005	1.3000e-004	0.0000	1.3699	1.3699	8.0000e-005	0.0000	1.3718
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-004	6.7000e-004	5.8000e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1132	1.1132	5.0000e-005	0.0000	1.1143
Total	9.1000e-004	7.2100e-003	7.2800e-003	2.0000e-005	1.5500e-003	6.0000e-005	1.6100e-003	4.1000e-004	6.0000e-005	4.7000e-004	0.0000	2.4831	2.4831	1.3000e-004	0.0000	2.4862

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0208	8.0800e-003	2.0000e-005		9.5000e-004	9.5000e-004		8.8000e-004	8.8000e-004	0.0000	1.5743	1.5743	4.9000e-004	0.0000	1.5866
Total	1.8100e-003	0.0208	8.0800e-003	2.0000e-005	5.8000e-003	9.5000e-004	6.7500e-003	2.9500e-003	8.8000e-004	3.8300e-003	0.0000	1.5743	1.5743	4.9000e-004	0.0000	1.5866

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3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	4.0000e-005	3.6000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0685	0.0685	0.0000	0.0000	0.0686
Total	4.0000e-005	4.0000e-005	3.6000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0685	0.0685	0.0000	0.0000	0.0686

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0208	8.0800e-003	2.0000e-005		9.5000e-004	9.5000e-004		8.8000e-004	8.8000e-004	0.0000	1.5743	1.5743	4.9000e-004	0.0000	1.5866
Total	1.8100e-003	0.0208	8.0800e-003	2.0000e-005	5.8000e-003	9.5000e-004	6.7500e-003	2.9500e-003	8.8000e-004	3.8300e-003	0.0000	1.5743	1.5743	4.9000e-004	0.0000	1.5866

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3.3 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	4.0000e-005	3.6000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0685	0.0685	0.0000	0.0000	0.0686
Total	4.0000e-005	4.0000e-005	3.6000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0685	0.0685	0.0000	0.0000	0.0686

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0341	0.0135	3.0000e-005		1.5900e-003	1.5900e-003		1.4600e-003	1.4600e-003	0.0000	2.5787	2.5787	8.0000e-004	0.0000	2.5988
Total	2.9900e-003	0.0341	0.0135	3.0000e-005	9.8300e-003	1.5900e-003	0.0114	5.0500e-003	1.4600e-003	6.5100e-003	0.0000	2.5787	2.5787	8.0000e-004	0.0000	2.5988

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3.4 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	8.0000e-005	7.1000e-004	0.0000	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1370	0.1370	1.0000e-005	0.0000	0.1372
Total	9.0000e-005	8.0000e-005	7.1000e-004	0.0000	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1370	0.1370	1.0000e-005	0.0000	0.1372

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0341	0.0135	3.0000e-005		1.5900e-003	1.5900e-003		1.4600e-003	1.4600e-003	0.0000	2.5787	2.5787	8.0000e-004	0.0000	2.5988
Total	2.9900e-003	0.0341	0.0135	3.0000e-005	9.8300e-003	1.5900e-003	0.0114	5.0500e-003	1.4600e-003	6.5100e-003	0.0000	2.5787	2.5787	8.0000e-004	0.0000	2.5988

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3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	8.0000e-005	7.1000e-004	0.0000	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1370	0.1370	1.0000e-005	0.0000	0.1372
Total	9.0000e-005	8.0000e-005	7.1000e-004	0.0000	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1370	0.1370	1.0000e-005	0.0000	0.1372

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2592	1.7428	1.3877	2.2000e-003		0.1058	0.1058		0.1022	0.1022	0.0000	184.2346	184.2346	0.0371	0.0000	185.1618
Total	0.2592	1.7428	1.3877	2.2000e-003		0.1058	0.1058		0.1022	0.1022	0.0000	184.2346	184.2346	0.0371	0.0000	185.1618

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3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0183	0.4079	0.1379	6.8000e-004	0.0154	3.7800e-003	0.0192	4.4600e-003	3.6200e-003	8.0800e-003	0.0000	65.6775	65.6775	4.3600e-003	0.0000	65.7865
Worker	0.0471	0.0454	0.3925	8.4000e-004	0.0847	5.9000e-004	0.0853	0.0225	5.5000e-004	0.0231	0.0000	75.3542	75.3542	3.1000e-003	0.0000	75.4318
Total	0.0654	0.4533	0.5303	1.5200e-003	0.1002	4.3700e-003	0.1045	0.0270	4.1700e-003	0.0311	0.0000	141.0318	141.0318	7.4600e-003	0.0000	141.2183

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2592	1.7428	1.3877	2.2000e-003		0.1058	0.1058		0.1022	0.1022	0.0000	184.2344	184.2344	0.0371	0.0000	185.1616
Total	0.2592	1.7428	1.3877	2.2000e-003		0.1058	0.1058		0.1022	0.1022	0.0000	184.2344	184.2344	0.0371	0.0000	185.1616

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3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0183	0.4079	0.1379	6.8000e-004	0.0154	3.7800e-003	0.0192	4.4600e-003	3.6200e-003	8.0800e-003	0.0000	65.6775	65.6775	4.3600e-003	0.0000	65.7865
Worker	0.0471	0.0454	0.3925	8.4000e-004	0.0847	5.9000e-004	0.0853	0.0225	5.5000e-004	0.0231	0.0000	75.3542	75.3542	3.1000e-003	0.0000	75.4318
Total	0.0654	0.4533	0.5303	1.5200e-003	0.1002	4.3700e-003	0.1045	0.0270	4.1700e-003	0.0311	0.0000	141.0318	141.0318	7.4600e-003	0.0000	141.2183

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.0900e-003	0.0523	0.0450	7.0000e-005		3.0500e-003	3.0500e-003		2.8100e-003	2.8100e-003	0.0000	6.1073	6.1073	1.8700e-003	0.0000	6.1540
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.0900e-003	0.0523	0.0450	7.0000e-005		3.0500e-003	3.0500e-003		2.8100e-003	2.8100e-003	0.0000	6.1073	6.1073	1.8700e-003	0.0000	6.1540

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3.6 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	3.4000e-004	2.9000e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5566	0.5566	2.0000e-005	0.0000	0.5572
Total	3.5000e-004	3.4000e-004	2.9000e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5566	0.5566	2.0000e-005	0.0000	0.5572

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.0900e-003	0.0523	0.0450	7.0000e-005		3.0500e-003	3.0500e-003		2.8100e-003	2.8100e-003	0.0000	6.1073	6.1073	1.8700e-003	0.0000	6.1540
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.0900e-003	0.0523	0.0450	7.0000e-005		3.0500e-003	3.0500e-003		2.8100e-003	2.8100e-003	0.0000	6.1073	6.1073	1.8700e-003	0.0000	6.1540

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3.6 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	3.4000e-004	2.9000e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5566	0.5566	2.0000e-005	0.0000	0.5572
Total	3.5000e-004	3.4000e-004	2.9000e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5566	0.5566	2.0000e-005	0.0000	0.5572

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2835					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1400e-003	0.0211	0.0195	3.0000e-005		1.5800e-003	1.5800e-003		1.5800e-003	1.5800e-003	0.0000	2.6809	2.6809	2.5000e-004	0.0000	2.6873
Total	0.2866	0.0211	0.0195	3.0000e-005		1.5800e-003	1.5800e-003		1.5800e-003	1.5800e-003	0.0000	2.6809	2.6809	2.5000e-004	0.0000	2.6873

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3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0100e-003	9.7000e-004	8.4300e-003	2.0000e-005	1.8200e-003	1.0000e-005	1.8300e-003	4.8000e-004	1.0000e-005	5.0000e-004	0.0000	1.6184	1.6184	7.0000e-005	0.0000	1.6201
Total	1.0100e-003	9.7000e-004	8.4300e-003	2.0000e-005	1.8200e-003	1.0000e-005	1.8300e-003	4.8000e-004	1.0000e-005	5.0000e-004	0.0000	1.6184	1.6184	7.0000e-005	0.0000	1.6201

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2835					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1400e-003	0.0211	0.0195	3.0000e-005		1.5800e-003	1.5800e-003		1.5800e-003	1.5800e-003	0.0000	2.6809	2.6809	2.5000e-004	0.0000	2.6873
Total	0.2866	0.0211	0.0195	3.0000e-005		1.5800e-003	1.5800e-003		1.5800e-003	1.5800e-003	0.0000	2.6809	2.6809	2.5000e-004	0.0000	2.6873

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3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0100e-003	9.7000e-004	8.4300e-003	2.0000e-005	1.8200e-003	1.0000e-005	1.8300e-003	4.8000e-004	1.0000e-005	5.0000e-004	0.0000	1.6184	1.6184	7.0000e-005	0.0000	1.6201
Total	1.0100e-003	9.7000e-004	8.4300e-003	2.0000e-005	1.8200e-003	1.0000e-005	1.8300e-003	4.8000e-004	1.0000e-005	5.0000e-004	0.0000	1.6184	1.6184	7.0000e-005	0.0000	1.6201

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1215					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2000e-003	8.2600e-003	8.2900e-003	1.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	1.1490	1.1490	1.0000e-004	0.0000	1.1514
Total	0.1227	8.2600e-003	8.2900e-003	1.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	1.1490	1.1490	1.0000e-004	0.0000	1.1514

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3.7 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	3.7000e-004	3.1700e-003	1.0000e-005	7.8000e-004	1.0000e-005	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6732	0.6732	3.0000e-005	0.0000	0.6738
Total	3.9000e-004	3.7000e-004	3.1700e-003	1.0000e-005	7.8000e-004	1.0000e-005	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6732	0.6732	3.0000e-005	0.0000	0.6738

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1215					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2000e-003	8.2600e-003	8.2900e-003	1.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	1.1490	1.1490	1.0000e-004	0.0000	1.1514
Total	0.1227	8.2600e-003	8.2900e-003	1.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	1.1490	1.1490	1.0000e-004	0.0000	1.1514

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3.7 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	3.7000e-004	3.1700e-003	1.0000e-005	7.8000e-004	1.0000e-005	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6732	0.6732	3.0000e-005	0.0000	0.6738
Total	3.9000e-004	3.7000e-004	3.1700e-003	1.0000e-005	7.8000e-004	1.0000e-005	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6732	0.6732	3.0000e-005	0.0000	0.6738

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1306	0.4759	1.2569	2.8100e-003	0.2329	3.6300e-003	0.2366	0.0624	3.4200e-003	0.0658	0.0000	257.1256	257.1256	0.0125	0.0000	257.4385
Unmitigated	0.1306	0.4759	1.2569	2.8100e-003	0.2329	3.6300e-003	0.2366	0.0624	3.4200e-003	0.0658	0.0000	257.1256	257.1256	0.0125	0.0000	257.4385

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	26.60	25.56	23.44	66,080	66,080
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	40.00	6.15	2.63	67,849	67,849
Movie Theater (No Matinee)	306.00	571.20	471.75	485,758	485,758
Total	372.60	602.91	497.82	619,687	619,687

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
Enclosed Parking with Elevator	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4
Movie Theater (No Matinee)	13.00	5.00	5.00	1.80	79.20	19.00	66	17	17

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Enclosed Parking with Elevator	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Movie Theater (No Matinee)	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Apartments Mid Rise	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	425.7941	425.7941	0.0193	3.9800e-003	427.4624
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	425.7941	425.7941	0.0193	3.9800e-003	427.4624
NaturalGas Mitigated	3.8600e-003	0.0350	0.0286	2.1000e-004		2.6700e-003	2.6700e-003		2.6700e-003	2.6700e-003	0.0000	38.2464	38.2464	7.3000e-004	7.0000e-004	38.4737
NaturalGas Unmitigated	3.8600e-003	0.0350	0.0286	2.1000e-004		2.6700e-003	2.6700e-003		2.6700e-003	2.6700e-003	0.0000	38.2464	38.2464	7.3000e-004	7.0000e-004	38.4737

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5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	44276.3	2.4000e-004	2.0400e-003	8.7000e-004	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3628	2.3628	5.0000e-005	4.0000e-005	2.3768
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	41125	2.2000e-004	2.0200e-003	1.6900e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	2.1946	2.1946	4.0000e-005	4.0000e-005	2.2076
Movie Theater (No Matinee)	631310	3.4000e-003	0.0310	0.0260	1.9000e-004		2.3500e-003	2.3500e-003		2.3500e-003	2.3500e-003	0.0000	33.6891	33.6891	6.5000e-004	6.2000e-004	33.8893
Total		3.8600e-003	0.0350	0.0286	2.1000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	38.2464	38.2464	7.4000e-004	7.0000e-004	38.4737

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5.2 Energy by Land Use - Natural Gas

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	44276.3	2.4000e-004	2.0400e-003	8.7000e-004	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3628	2.3628	5.0000e-005	4.0000e-005	2.3768
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	41125	2.2000e-004	2.0200e-003	1.6900e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	2.1946	2.1946	4.0000e-005	4.0000e-005	2.2076
Movie Theater (No Matinee)	631310	3.4000e-003	0.0310	0.0260	1.9000e-004		2.3500e-003	2.3500e-003		2.3500e-003	2.3500e-003	0.0000	33.6891	33.6891	6.5000e-004	6.2000e-004	33.8893
Total		3.8600e-003	0.0350	0.0286	2.1000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	38.2464	38.2464	7.4000e-004	7.0000e-004	38.4737

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	17643.9	5.1328	2.3000e-004	5.0000e-005	5.1529
Enclosed Parking with Elevator	1.19972e+006	349.0123	0.0158	3.2700e-003	350.3798
General Office Building	45550	13.2510	6.0000e-004	1.2000e-004	13.3029
Movie Theater (No Matinee)	200741	58.3979	2.6400e-003	5.5000e-004	58.6267
Total		425.7941	0.0193	3.9900e-003	427.4624

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5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	17643.9	5.1328	2.3000e-004	5.0000e-005	5.1529
Enclosed Parking with Elevator	1.19972e+006	349.0123	0.0158	3.2700e-003	350.3798
General Office Building	45550	13.2510	6.0000e-004	1.2000e-004	13.3029
Movie Theater (No Matinee)	200741	58.3979	2.6400e-003	5.5000e-004	58.6267
Total		425.7941	0.0193	3.9900e-003	427.4624

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1733	7.4000e-004	0.0665	0.0000		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	0.1120	0.1120	1.5000e-004	0.0000	0.1157
Unmitigated	0.1733	7.4000e-004	0.0665	0.0000		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	0.1120	0.1120	1.5000e-004	0.0000	0.1157

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0405					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1300					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.7800e-003	7.4000e-004	0.0665	0.0000		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	0.1120	0.1120	1.5000e-004	0.0000	0.1157
Total	0.1733	7.4000e-004	0.0665	0.0000		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	0.1120	0.1120	1.5000e-004	0.0000	0.1157

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0405					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1300					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.7800e-003	7.4000e-004	0.0665	0.0000		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	0.1120	0.1120	1.5000e-004	0.0000	0.1157
Total	0.1733	7.4000e-004	0.0665	0.0000		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	0.1120	0.1120	1.5000e-004	0.0000	0.1157

7.0 Water Detail

7.1 Mitigation Measures Water

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	6.2857	0.0983	2.3700e-003	9.4479
Unmitigated	6.2857	0.0983	2.3700e-003	9.4479

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	0.260616 / 0.164301	0.6602	8.5200e-003	2.1000e-004	0.9345
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0.444334 / 0.272334	1.1177	0.0145	3.5000e-004	1.5854
Movie Theater (No Matinee)	2.30419 / 0.147076	4.5078	0.0753	1.8100e-003	6.9280
Total		6.2857	0.0983	2.3700e-003	9.4479

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	0.260616 / 0.164301	0.6602	8.5200e-003	2.1000e-004	0.9345
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0.444334 / 0.272334	1.1177	0.0145	3.5000e-004	1.5854
Movie Theater (No Matinee)	2.30419 / 0.147076	4.5078	0.0753	1.8100e-003	6.9280
Total		6.2857	0.0983	2.3700e-003	9.4479

8.0 Waste Detail

8.1 Mitigation Measures Waste

Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.8465	0.0500	0.0000	2.0971
Unmitigated	0.8465	0.0500	0.0000	2.0971

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1.84	0.3735	0.0221	0.0000	0.9253
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	2.33	0.4730	0.0280	0.0000	1.1718
Total		0.8465	0.0500	0.0000	2.0971

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1.84	0.3735	0.0221	0.0000	0.9253
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	2.33	0.4730	0.0280	0.0000	1.1718
Total		0.8465	0.0500	0.0000	2.0971

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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Palm & Nipomo Project - Alternative 1 - San Luis Obispo County, Annual

11.0 Vegetation

Greenhouse Gas Emission Worksheet
N2O Mobile Emissions

Nipomo Palm Parking - Alternative 1

From CalEEMod:

Annual VMT: 619,687

Vehicle Type	Percent Type	CH4 Emission Factor (g/mile)*	CH4 Emission (g/mile)**	N2O Emission Factor (g/mile)*	N2O Emission (g/mile)**
Light Auto	56.0%	0.04	0.0224	0.04	0.0224
Light Truck < 3750 lbs	3.2%	0.05	0.0016	0.06	0.00192
Light Truck 3751-5750 lbs	19.9%	0.05	0.00995	0.06	0.01194
Med Truck 5751-8500 lbs	13.0%	0.12	0.0156	0.2	0.026
Lite-Heavy Truck 8501-10,000 lbs	3.1%	0.12	0.00372	0.2	0.0062
Lite-Heavy Truck 10,001-14,000 lbs	0.7%	0.09	0.00063	0.125	0.000875
Med-Heavy Truck 14,001-33,000 lbs	1.3%	0.06	0.00078	0.05	0.00065
Heavy-Heavy Truck 33,001-60,000 lbs	1.9%	0.06	0.00114	0.05	0.00095
Other Bus	0.2%	0.06	0.00012	0.05	0.0001
Urban Bus	0.1%	0.06	0.00006	0.05	0.00005
Motorcycle	0.5%	0.09	0.00045	0.01	0.00005
School Bus	0.0%	0.06	0	0.05	0
Motor Home	0.1%	0.09	0.00009	0.125	0.000125
Total	100.0%		0.05654		0.07126

Total Emissions (metric tons) =

Emission Factor by Vehicle Mix (g/mi) x Annual VMT(mi) x 0.000001 metric tons/g

Conversion to Carbon Dioxide Equivalency (CO2e) Units based on Global Warming Potential (GWP)

CH4 21 GWP
 N2O 310 GWP
 1 ton (short, US) = 0.90718474 metric ton

Annual Mobile Emissions:

	Total Emissions	Total CO2e units
N2O Emissions:	0.0442 metric tons N2O	13.69 metric tons CO2e
Project Total:		13.69 metric tons CO2e

References

* from Table C.4: Methane and Nitrous Oxide Emission Factors for Mobile Sources by Vehicle and Fuel Type (g/mile).
 in California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.
 Assume Model year 2000-present, gasoline fueled.

** Source: California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Winter

Palm & Nipomo Project - Alternative 2
San Luis Obispo County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	5.00	1000sqft	0.00	5,000.00	0
Enclosed Parking with Elevator	445.00	Space	1.40	178,000.00	0
Apartments Mid Rise	22.00	Dwelling Unit	0.00	22,000.00	63

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.2	Precipitation Freq (Days)	44
Climate Zone	4			Operational Year	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project Alternative 2

Land Use - Total Lot Acreage = 1.4 based on Project Description, Theater square footage based on PD. Alt 2 replaces the Theater use with 22 two-bedroom residential units.

Construction Phase - Extended arch coating length to 30 days.

Demolition - Demo = 7,700 sf

Vehicle Trips - WkDy Trip Rate based on applicant provided traffic info. Parking Garage (0) would not generate trips

Road Dust - SLO County APCD- CARB

Area Mitigation -

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	30.00
tblLandUse	LotAcreage	0.11	0.00
tblLandUse	LotAcreage	4.00	1.40
tblLandUse	LotAcreage	0.58	0.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblVehicleTrips	WD_TR	11.03	16.00

2.0 Emissions Summary

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Winter

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9413	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.3666	3.3666	3.4500e-003	0.0000	3.4529
Energy	9.6300e-003	0.0836	0.0447	5.3000e-004		6.6500e-003	6.6500e-003		6.6500e-003	6.6500e-003		105.0023	105.0023	2.0100e-003	1.9300e-003	105.6263
Mobile	0.4577	1.9232	5.2861	0.0132	1.1741	0.0168	1.1909	0.3138	0.0158	0.3297		1,330.652 2	1,330.652 2	0.0588		1,332.121 7
Total	1.4086	2.0283	7.1982	0.0138	1.1741	0.0336	1.2077	0.3138	0.0327	0.3465	0.0000	1,439.021 1	1,439.021 1	0.0642	1.9300e-003	1,441.200 9

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9413	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.3666	3.3666	3.4500e-003	0.0000	3.4529
Energy	9.6300e-003	0.0836	0.0447	5.3000e-004		6.6500e-003	6.6500e-003		6.6500e-003	6.6500e-003		105.0023	105.0023	2.0100e-003	1.9300e-003	105.6263
Mobile	0.4577	1.9232	5.2861	0.0132	1.1741	0.0168	1.1909	0.3138	0.0158	0.3297		1,330.652 2	1,330.652 2	0.0588		1,332.121 7
Total	1.4086	2.0283	7.1982	0.0138	1.1741	0.0336	1.2077	0.3138	0.0327	0.3465	0.0000	1,439.021 1	1,439.021 1	0.0642	1.9300e-003	1,441.200 9

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/5/2018	2/1/2018	5	20	
2	Site Preparation	Site Preparation	2/2/2018	2/5/2018	5	2	
3	Grading	Grading	2/6/2018	2/9/2018	5	4	
4	Building Construction	Building Construction	2/10/2018	11/16/2018	5	200	
5	Paving	Paving	11/17/2018	11/30/2018	5	10	
6	Architectural Coating	Architectural Coating	12/1/2018	1/11/2019	5	30	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 1.4

Residential Indoor: 44,550; Residential Outdoor: 14,850; Non-Residential Indoor: 7,500; Non-Residential Outdoor: 2,500; Striped Parking Area: 10,680 (Architectural Coating – sqft)

OffRoad Equipment

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	35.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	92.00	32.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3912	0.0000	0.3912	0.0592	0.0000	0.0592			0.0000			0.0000
Off-Road	2.4838	24.3641	15.1107	0.0241		1.4365	1.4365		1.3429	1.3429		2,391.1659	2,391.1659	0.6058		2,406.3105
Total	2.4838	24.3641	15.1107	0.0241	0.3912	1.4365	1.8277	0.0592	1.3429	1.4021		2,391.1659	2,391.1659	0.6058		2,406.3105

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3.2 Demolition - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0210	0.6463	0.1531	1.3900e-003	0.0305	4.8100e-003	0.0353	8.3600e-003	4.6000e-003	0.0130		149.8063	149.8063	8.6500e-003		150.0225
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442
Total	0.0983	0.7146	0.7375	2.6100e-003	0.1590	5.6900e-003	0.1647	0.0425	5.4100e-003	0.0479		271.5242	271.5242	0.0137		271.8667

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3912	0.0000	0.3912	0.0592	0.0000	0.0592			0.0000			0.0000
Off-Road	2.4838	24.3641	15.1107	0.0241		1.4365	1.4365		1.3429	1.3429	0.0000	2,391.1659	2,391.1659	0.6058		2,406.3105
Total	2.4838	24.3641	15.1107	0.0241	0.3912	1.4365	1.8277	0.0592	1.3429	1.4021	0.0000	2,391.1659	2,391.1659	0.6058		2,406.3105

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Winter

3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0210	0.6463	0.1531	1.3900e-003	0.0305	4.8100e-003	0.0353	8.3600e-003	4.6000e-003	0.0130		149.8063	149.8063	8.6500e-003		150.0225
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442
Total	0.0983	0.7146	0.7375	2.6100e-003	0.1590	5.6900e-003	0.1647	0.0425	5.4100e-003	0.0479		271.5242	271.5242	0.0137		271.8667

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.8061	20.7472	8.0808	0.0172		0.9523	0.9523		0.8761	0.8761		1,735.3630	1,735.3630	0.5402		1,748.8690
Total	1.8061	20.7472	8.0808	0.0172	5.7996	0.9523	6.7518	2.9537	0.8761	3.8298		1,735.3630	1,735.3630	0.5402		1,748.8690

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Winter

3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810
Total	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.8061	20.7472	8.0808	0.0172		0.9523	0.9523		0.8761	0.8761	0.0000	1,735.3630	1,735.3630	0.5402		1,748.8690
Total	1.8061	20.7472	8.0808	0.0172	5.7996	0.9523	6.7518	2.9537	0.8761	3.8298	0.0000	1,735.3630	1,735.3630	0.5402		1,748.8690

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Winter

3.3 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810
Total	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4972	17.0666	6.7630	0.0141		0.7947	0.7947		0.7311	0.7311		1,421.2605	1,421.2605	0.4425		1,432.3219
Total	1.4972	17.0666	6.7630	0.0141	4.9143	0.7947	5.7090	2.5256	0.7311	3.2568		1,421.2605	1,421.2605	0.4425		1,432.3219

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Winter

3.4 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810
Total	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4972	17.0666	6.7630	0.0141		0.7947	0.7947		0.7311	0.7311	0.0000	1,421.2605	1,421.2605	0.4425		1,432.3219
Total	1.4972	17.0666	6.7630	0.0141	4.9143	0.7947	5.7090	2.5256	0.7311	3.2568	0.0000	1,421.2605	1,421.2605	0.4425		1,432.3219

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Winter

3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810
Total	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.8389	2,030.8389	0.4088		2,041.0596
Total	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.8389	2,030.8389	0.4088		2,041.0596

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Winter

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1770	3.7879	1.3673	6.3200e-003	0.1485	0.0361	0.1846	0.0428	0.0346	0.0773		670.0166	670.0166	0.0468		671.1863
Worker	0.5468	0.4833	4.1351	8.6700e-003	0.9095	6.2200e-003	0.9157	0.2412	5.7500e-003	0.2470		861.3881	861.3881	0.0358		862.2820
Total	0.7239	4.2712	5.5024	0.0150	1.0580	0.0424	1.1004	0.2840	0.0403	0.3243		1,531.4047	1,531.4047	0.0825		1,533.4683

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.8389	2,030.8389	0.4088		2,041.0596
Total	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.8389	2,030.8389	0.4088		2,041.0596

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3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1770	3.7879	1.3673	6.3200e-003	0.1485	0.0361	0.1846	0.0428	0.0346	0.0773		670.0166	670.0166	0.0468		671.1863
Worker	0.5468	0.4833	4.1351	8.6700e-003	0.9095	6.2200e-003	0.9157	0.2412	5.7500e-003	0.2470		861.3881	861.3881	0.0358		862.2820
Total	0.7239	4.2712	5.5024	0.0150	1.0580	0.0424	1.1004	0.2840	0.0403	0.3243		1,531.4047	1,531.4047	0.0825		1,533.4683

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618		1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618		1,346.4360	1,346.4360	0.4113		1,356.7186

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Winter

3.6 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442
Total	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618	0.0000	1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618	0.0000	1,346.4360	1,346.4360	0.4113		1,356.7186

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Winter

3.6 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442
Total	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	29.2808					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	29.5795	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171

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3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1070	0.0946	0.8091	1.7000e-003	0.1780	1.2200e-003	0.1792	0.0472	1.1200e-003	0.0483		168.5325	168.5325	7.0000e-003		168.7073
Total	0.1070	0.0946	0.8091	1.7000e-003	0.1780	1.2200e-003	0.1792	0.0472	1.1200e-003	0.0483		168.5325	168.5325	7.0000e-003		168.7073

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	29.2808					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171
Total	29.5795	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Winter

3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1070	0.0946	0.8091	1.7000e-003	0.1780	1.2200e-003	0.1792	0.0472	1.1200e-003	0.0483		168.5325	168.5325	7.0000e-003		168.7073
Total	0.1070	0.0946	0.8091	1.7000e-003	0.1780	1.2200e-003	0.1792	0.0472	1.1200e-003	0.0483		168.5325	168.5325	7.0000e-003		168.7073

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	29.2808					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	29.5473	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Winter

3.7 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0962	0.0828	0.7075	1.6400e-003	0.1780	1.1800e-003	0.1791	0.0472	1.0900e-003	0.0483		163.5759	163.5759	6.1400e-003		163.7294
Total	0.0962	0.0828	0.7075	1.6400e-003	0.1780	1.1800e-003	0.1791	0.0472	1.0900e-003	0.0483		163.5759	163.5759	6.1400e-003		163.7294

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	29.2808					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	29.5473	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Winter

3.7 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0962	0.0828	0.7075	1.6400e-003	0.1780	1.1800e-003	0.1791	0.0472	1.0900e-003	0.0483		163.5759	163.5759	6.1400e-003		163.7294
Total	0.0962	0.0828	0.7075	1.6400e-003	0.1780	1.1800e-003	0.1791	0.0472	1.0900e-003	0.0483		163.5759	163.5759	6.1400e-003		163.7294

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4577	1.9232	5.2861	0.0132	1.1741	0.0168	1.1909	0.3138	0.0158	0.3297		1,330.652 2	1,330.652 2	0.0588		1,332.121 7
Unmitigated	0.4577	1.9232	5.2861	0.0132	1.1741	0.0168	1.1909	0.3138	0.0158	0.3297		1,330.652 2	1,330.652 2	0.0588		1,332.121 7

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	146.30	140.58	128.92	363,443	363,443
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	80.00	12.30	5.25	135,697	135,697
Total	226.30	152.88	134.17	499,140	499,140

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
Enclosed Parking with Elevator	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Enclosed Parking with Elevator	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Apartments Mid Rise	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	9.6300e-003	0.0836	0.0447	5.3000e-004		6.6500e-003	6.6500e-003		6.6500e-003	6.6500e-003		105.0023	105.0023	2.0100e-003	1.9300e-003	105.6263
NaturalGas Unmitigated	9.6300e-003	0.0836	0.0447	5.3000e-004		6.6500e-003	6.6500e-003		6.6500e-003	6.6500e-003		105.0023	105.0023	2.0100e-003	1.9300e-003	105.6263

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Winter

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	667.177	7.2000e-003	0.0615	0.0262	3.9000e-004		4.9700e-003	4.9700e-003		4.9700e-003	4.9700e-003		78.4914	78.4914	1.5000e-003	1.4400e-003	78.9578
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	225.342	2.4300e-003	0.0221	0.0186	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5109	26.5109	5.1000e-004	4.9000e-004	26.6684
Total		9.6300e-003	0.0836	0.0447	5.2000e-004		6.6500e-003	6.6500e-003		6.6500e-003	6.6500e-003		105.0023	105.0023	2.0100e-003	1.9300e-003	105.6263

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	0.667177	7.2000e-003	0.0615	0.0262	3.9000e-004		4.9700e-003	4.9700e-003		4.9700e-003	4.9700e-003		78.4914	78.4914	1.5000e-003	1.4400e-003	78.9578
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0.225342	2.4300e-003	0.0221	0.0186	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5109	26.5109	5.1000e-004	4.9000e-004	26.6684
Total		9.6300e-003	0.0836	0.0447	5.2000e-004		6.6500e-003	6.6500e-003		6.6500e-003	6.6500e-003		105.0023	105.0023	2.0100e-003	1.9300e-003	105.6263

6.0 Area Detail

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Winter

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.9413	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.3666	3.3666	3.4500e-003	0.0000	3.4529
Unmitigated	0.9413	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.3666	3.3666	3.4500e-003	0.0000	3.4529

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Winter

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	lb/day										lb/day						
Architectural Coating	0.2407					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Consumer Products	0.6409					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Landscaping	0.0598	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102		3.3666	3.3666	3.4500e-003			3.4529
Total	0.9413	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.3666	3.3666	3.4500e-003	0.0000		3.4529

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Winter

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2407					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6409					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0598	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102		3.3666	3.3666	3.4500e-003		3.4529
Total	0.9413	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.3666	3.3666	3.4500e-003	0.0000	3.4529

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Winter

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Summer

Palm & Nipomo Project - Alternative 2
San Luis Obispo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	5.00	1000sqft	0.00	5,000.00	0
Enclosed Parking with Elevator	445.00	Space	1.40	178,000.00	0
Apartments Mid Rise	22.00	Dwelling Unit	0.00	22,000.00	63

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.2	Precipitation Freq (Days)	44
Climate Zone	4			Operational Year	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project Alternative 2

Land Use - Total Lot Acreage = 1.4 based on Project Description, Theater square footage based on PD. Alt 2 replaces the Theater use with 22 two-bedroom residential units.

Construction Phase - Extended arch coating length to 30 days.

Demolition - Demo = 7,700 sf

Vehicle Trips - WkDy Trip Rate based on applicant provided traffic info. Parking Garage (0) would not generate trips

Road Dust - SLO County APCD- CARB

Area Mitigation -

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	30.00
tblLandUse	LotAcreage	0.11	0.00
tblLandUse	LotAcreage	4.00	1.40
tblLandUse	LotAcreage	0.58	0.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblVehicleTrips	WD_TR	11.03	16.00

2.0 Emissions Summary

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9413	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.3666	3.3666	3.4500e-003	0.0000	3.4529
Energy	9.6300e-003	0.0836	0.0447	5.3000e-004		6.6500e-003	6.6500e-003		6.6500e-003	6.6500e-003		105.0023	105.0023	2.0100e-003	1.9300e-003	105.6263
Mobile	0.4696	1.8504	5.1490	0.0138	1.1741	0.0167	1.1908	0.3138	0.0157	0.3295		1,384.902 3	1,384.902 3	0.0581		1,386.354 1
Total	1.4206	1.9554	7.0611	0.0144	1.1741	0.0335	1.2076	0.3138	0.0325	0.3463	0.0000	1,493.271 2	1,493.271 2	0.0635	1.9300e-003	1,495.433 2

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9413	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.3666	3.3666	3.4500e-003	0.0000	3.4529
Energy	9.6300e-003	0.0836	0.0447	5.3000e-004		6.6500e-003	6.6500e-003		6.6500e-003	6.6500e-003		105.0023	105.0023	2.0100e-003	1.9300e-003	105.6263
Mobile	0.4696	1.8504	5.1490	0.0138	1.1741	0.0167	1.1908	0.3138	0.0157	0.3295		1,384.902 3	1,384.902 3	0.0581		1,386.354 1
Total	1.4206	1.9554	7.0611	0.0144	1.1741	0.0335	1.2076	0.3138	0.0325	0.3463	0.0000	1,493.271 2	1,493.271 2	0.0635	1.9300e-003	1,495.433 2

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/5/2018	2/1/2018	5	20	
2	Site Preparation	Site Preparation	2/2/2018	2/5/2018	5	2	
3	Grading	Grading	2/6/2018	2/9/2018	5	4	
4	Building Construction	Building Construction	2/10/2018	11/16/2018	5	200	
5	Paving	Paving	11/17/2018	11/30/2018	5	10	
6	Architectural Coating	Architectural Coating	12/1/2018	1/11/2019	5	30	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 1.4

Residential Indoor: 44,550; Residential Outdoor: 14,850; Non-Residential Indoor: 7,500; Non-Residential Outdoor: 2,500; Striped Parking Area: 10,680 (Architectural Coating – sqft)

OffRoad Equipment

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	35.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	92.00	32.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3912	0.0000	0.3912	0.0592	0.0000	0.0592			0.0000			0.0000
Off-Road	2.4838	24.3641	15.1107	0.0241		1.4365	1.4365		1.3429	1.3429		2,391.1659	2,391.1659	0.6058		2,406.3105
Total	2.4838	24.3641	15.1107	0.0241	0.3912	1.4365	1.8277	0.0592	1.3429	1.4021		2,391.1659	2,391.1659	0.6058		2,406.3105

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3.2 Demolition - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0205	0.6409	0.1438	1.4100e-003	0.0305	4.7200e-003	0.0352	8.3600e-003	4.5200e-003	0.0129		151.8744	151.8744	8.3600e-003		152.0834
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092
Total	0.0885	0.7011	0.7374	2.6900e-003	0.1590	5.6000e-003	0.1646	0.0425	5.3300e-003	0.0478		279.5544	279.5544	0.0135		279.8926

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3912	0.0000	0.3912	0.0592	0.0000	0.0592			0.0000			0.0000
Off-Road	2.4838	24.3641	15.1107	0.0241		1.4365	1.4365		1.3429	1.3429	0.0000	2,391.1659	2,391.1659	0.6058		2,406.3105
Total	2.4838	24.3641	15.1107	0.0241	0.3912	1.4365	1.8277	0.0592	1.3429	1.4021	0.0000	2,391.1659	2,391.1659	0.6058		2,406.3105

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Summer

3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0205	0.6409	0.1438	1.4100e-003	0.0305	4.7200e-003	0.0352	8.3600e-003	4.5200e-003	0.0129		151.8744	151.8744	8.3600e-003		152.0834
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092
Total	0.0885	0.7011	0.7374	2.6900e-003	0.1590	5.6000e-003	0.1646	0.0425	5.3300e-003	0.0478		279.5544	279.5544	0.0135		279.8926

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.8061	20.7472	8.0808	0.0172		0.9523	0.9523		0.8761	0.8761		1,735.3630	1,735.3630	0.5402		1,748.8690
Total	1.8061	20.7472	8.0808	0.0172	5.7996	0.9523	6.7518	2.9537	0.8761	3.8298		1,735.3630	1,735.3630	0.5402		1,748.8690

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3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518
Total	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.8061	20.7472	8.0808	0.0172		0.9523	0.9523		0.8761	0.8761	0.0000	1,735.3630	1,735.3630	0.5402		1,748.8690
Total	1.8061	20.7472	8.0808	0.0172	5.7996	0.9523	6.7518	2.9537	0.8761	3.8298	0.0000	1,735.3630	1,735.3630	0.5402		1,748.8690

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Summer

3.3 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518
Total	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4972	17.0666	6.7630	0.0141		0.7947	0.7947		0.7311	0.7311		1,421.2605	1,421.2605	0.4425		1,432.3219
Total	1.4972	17.0666	6.7630	0.0141	4.9143	0.7947	5.7090	2.5256	0.7311	3.2568		1,421.2605	1,421.2605	0.4425		1,432.3219

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Summer

3.4 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518
Total	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4972	17.0666	6.7630	0.0141		0.7947	0.7947		0.7311	0.7311	0.0000	1,421.2605	1,421.2605	0.4425		1,432.3219
Total	1.4972	17.0666	6.7630	0.0141	4.9143	0.7947	5.7090	2.5256	0.7311	3.2568	0.0000	1,421.2605	1,421.2605	0.4425		1,432.3219

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Summer

3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518
Total	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.8389	2,030.8389	0.4088		2,041.0596
Total	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.8389	2,030.8389	0.4088		2,041.0596

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3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1683	3.7974	1.2209	6.5000e-003	0.1485	0.0352	0.1837	0.0428	0.0337	0.0765		689.6361	689.6361	0.0438		690.7303
Worker	0.4813	0.4259	4.2009	9.0900e-003	0.9095	6.2200e-003	0.9157	0.2412	5.7500e-003	0.2470		903.5811	903.5811	0.0366		904.4957
Total	0.6496	4.2233	5.4218	0.0156	1.0580	0.0415	1.0995	0.2840	0.0395	0.3235		1,593.2173	1,593.2173	0.0804		1,595.2260

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.8389	2,030.8389	0.4088		2,041.0596
Total	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.8389	2,030.8389	0.4088		2,041.0596

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3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1683	3.7974	1.2209	6.5000e-003	0.1485	0.0352	0.1837	0.0428	0.0337	0.0765		689.6361	689.6361	0.0438		690.7303
Worker	0.4813	0.4259	4.2009	9.0900e-003	0.9095	6.2200e-003	0.9157	0.2412	5.7500e-003	0.2470		903.5811	903.5811	0.0366		904.4957
Total	0.6496	4.2233	5.4218	0.0156	1.0580	0.0415	1.0995	0.2840	0.0395	0.3235		1,593.2173	1,593.2173	0.0804		1,595.2260

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618		1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618		1,346.4360	1,346.4360	0.4113		1,356.7186

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3.6 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092
Total	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618	0.0000	1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618	0.0000	1,346.4360	1,346.4360	0.4113		1,356.7186

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Summer

3.6 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092
Total	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	29.2808					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	29.5795	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171

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3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0942	0.0833	0.8219	1.7800e-003	0.1780	1.2200e-003	0.1792	0.0472	1.1200e-003	0.0483		176.7876	176.7876	7.1600e-003		176.9666
Total	0.0942	0.0833	0.8219	1.7800e-003	0.1780	1.2200e-003	0.1792	0.0472	1.1200e-003	0.0483		176.7876	176.7876	7.1600e-003		176.9666

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	29.2808					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171
Total	29.5795	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Summer

3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0942	0.0833	0.8219	1.7800e-003	0.1780	1.2200e-003	0.1792	0.0472	1.1200e-003	0.0483		176.7876	176.7876	7.1600e-003		176.9666
Total	0.0942	0.0833	0.8219	1.7800e-003	0.1780	1.2200e-003	0.1792	0.0472	1.1200e-003	0.0483		176.7876	176.7876	7.1600e-003		176.9666

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	29.2808					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	29.5473	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Summer

3.7 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0846	0.0729	0.7233	1.7200e-003	0.1780	1.1800e-003	0.1791	0.0472	1.0900e-003	0.0483		171.6027	171.6027	6.3000e-003		171.7603
Total	0.0846	0.0729	0.7233	1.7200e-003	0.1780	1.1800e-003	0.1791	0.0472	1.0900e-003	0.0483		171.6027	171.6027	6.3000e-003		171.7603

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	29.2808					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	29.5473	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Summer

3.7 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0846	0.0729	0.7233	1.7200e-003	0.1780	1.1800e-003	0.1791	0.0472	1.0900e-003	0.0483		171.6027	171.6027	6.3000e-003		171.7603
Total	0.0846	0.0729	0.7233	1.7200e-003	0.1780	1.1800e-003	0.1791	0.0472	1.0900e-003	0.0483		171.6027	171.6027	6.3000e-003		171.7603

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4696	1.8504	5.1490	0.0138	1.1741	0.0167	1.1908	0.3138	0.0157	0.3295		1,384.9023	1,384.9023	0.0581		1,386.3541
Unmitigated	0.4696	1.8504	5.1490	0.0138	1.1741	0.0167	1.1908	0.3138	0.0157	0.3295		1,384.9023	1,384.9023	0.0581		1,386.3541

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	146.30	140.58	128.92	363,443	363,443
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	80.00	12.30	5.25	135,697	135,697
Total	226.30	152.88	134.17	499,140	499,140

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
Enclosed Parking with Elevator	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Enclosed Parking with Elevator	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Apartments Mid Rise	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	9.6300e-003	0.0836	0.0447	5.3000e-004		6.6500e-003	6.6500e-003		6.6500e-003	6.6500e-003		105.0023	105.0023	2.0100e-003	1.9300e-003	105.6263
NaturalGas Unmitigated	9.6300e-003	0.0836	0.0447	5.3000e-004		6.6500e-003	6.6500e-003		6.6500e-003	6.6500e-003		105.0023	105.0023	2.0100e-003	1.9300e-003	105.6263

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Summer

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	667.177	7.2000e-003	0.0615	0.0262	3.9000e-004		4.9700e-003	4.9700e-003		4.9700e-003	4.9700e-003		78.4914	78.4914	1.5000e-003	1.4400e-003	78.9578
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	225.342	2.4300e-003	0.0221	0.0186	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5109	26.5109	5.1000e-004	4.9000e-004	26.6684
Total		9.6300e-003	0.0836	0.0447	5.2000e-004		6.6500e-003	6.6500e-003		6.6500e-003	6.6500e-003		105.0023	105.0023	2.0100e-003	1.9300e-003	105.6263

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	0.667177	7.2000e-003	0.0615	0.0262	3.9000e-004		4.9700e-003	4.9700e-003		4.9700e-003	4.9700e-003		78.4914	78.4914	1.5000e-003	1.4400e-003	78.9578
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0.225342	2.4300e-003	0.0221	0.0186	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5109	26.5109	5.1000e-004	4.9000e-004	26.6684
Total		9.6300e-003	0.0836	0.0447	5.2000e-004		6.6500e-003	6.6500e-003		6.6500e-003	6.6500e-003		105.0023	105.0023	2.0100e-003	1.9300e-003	105.6263

6.0 Area Detail

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Summer

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.9413	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.3666	3.3666	3.4500e-003	0.0000	3.4529
Unmitigated	0.9413	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.3666	3.3666	3.4500e-003	0.0000	3.4529

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Summer

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2407					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6409					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0598	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102		3.3666	3.3666	3.4500e-003		3.4529
Total	0.9413	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.3666	3.3666	3.4500e-003	0.0000	3.4529

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Summer

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2407					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6409					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0598	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102		3.3666	3.3666	3.4500e-003		3.4529
Total	0.9413	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.3666	3.3666	3.4500e-003	0.0000	3.4529

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Summer

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Annual

Palm & Nipomo Project - Alternative 2
San Luis Obispo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	5.00	1000sqft	0.00	5,000.00	0
Enclosed Parking with Elevator	445.00	Space	1.40	178,000.00	0
Apartments Mid Rise	22.00	Dwelling Unit	0.00	22,000.00	63

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.2	Precipitation Freq (Days)	44
Climate Zone	4			Operational Year	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project Alternative 2

Land Use - Total Lot Acreage = 1.4 based on Project Description, Theater square footage based on PD. Alt 2 replaces the Theater use with 22 two-bedroom residential units.

Construction Phase - Extended arch coating length to 30 days.

Demolition - Demo = 7,700 sf

Vehicle Trips - WkDy Trip Rate based on applicant provided traffic info. Parking Garage (0) would not generate trips

Road Dust - SLO County APCD- CARB

Area Mitigation -

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	30.00
tblLandUse	LotAcreage	0.11	0.00
tblLandUse	LotAcreage	4.00	1.40
tblLandUse	LotAcreage	0.58	0.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblVehicleTrips	WD_TR	11.03	16.00

2.0 Emissions Summary

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-5-2018	4-4-2018	0.8179	0.8179
2	4-5-2018	7-4-2018	0.8090	0.8090
3	7-5-2018	10-4-2018	0.8181	0.8181
4	10-5-2018	1-4-2019	0.8393	0.8393
5	1-5-2019	4-4-2019	0.0789	0.0789
		Highest	0.8393	0.8393

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1707	3.5500e-003	0.3081	2.0000e-005		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	0.5039	0.5039	5.2000e-004	0.0000	0.5169
Energy	1.7600e-003	0.0153	8.1600e-003	1.0000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	421.1291	421.1291	0.0186	4.1000e-003	422.8144
Mobile	0.0731	0.3152	0.8480	2.1800e-003	0.1876	2.7400e-003	0.1904	0.0503	2.5800e-003	0.0528	0.0000	199.3852	199.3852	8.6300e-003	0.0000	199.6010
Waste						0.0000	0.0000		0.0000	0.0000	2.9982	0.0000	2.9982	0.1772	0.0000	7.4279
Water						0.0000	0.0000		0.0000	0.0000	0.7367	5.1299	5.8666	0.0759	1.8300e-003	8.3107
Total	0.2456	0.3340	1.1642	2.3000e-003	0.1876	5.6300e-003	0.1932	0.0503	5.4700e-003	0.0557	3.7349	626.1481	629.8830	0.2808	5.9300e-003	638.6708

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1707	3.5500e-003	0.3081	2.0000e-005		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	0.5039	0.5039	5.2000e-004	0.0000	0.5169
Energy	1.7600e-003	0.0153	8.1600e-003	1.0000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	421.1291	421.1291	0.0186	4.1000e-003	422.8144
Mobile	0.0731	0.3152	0.8480	2.1800e-003	0.1876	2.7400e-003	0.1904	0.0503	2.5800e-003	0.0528	0.0000	199.3852	199.3852	8.6300e-003	0.0000	199.6010
Waste						0.0000	0.0000		0.0000	0.0000	2.9982	0.0000	2.9982	0.1772	0.0000	7.4279
Water						0.0000	0.0000		0.0000	0.0000	0.7367	5.1299	5.8666	0.0759	1.8300e-003	8.3107
Total	0.2456	0.3340	1.1642	2.3000e-003	0.1876	5.6300e-003	0.1932	0.0503	5.4700e-003	0.0557	3.7349	626.1481	629.8830	0.2808	5.9300e-003	638.6708

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/5/2018	2/1/2018	5	20	
2	Site Preparation	Site Preparation	2/2/2018	2/5/2018	5	2	
3	Grading	Grading	2/6/2018	2/9/2018	5	4	
4	Building Construction	Building Construction	2/10/2018	11/16/2018	5	200	
5	Paving	Paving	11/17/2018	11/30/2018	5	10	
6	Architectural Coating	Architectural Coating	12/1/2018	1/11/2019	5	30	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 1.4

Residential Indoor: 44,550; Residential Outdoor: 14,850; Non-Residential Indoor: 7,500; Non-Residential Outdoor: 2,500; Striped Parking Area: 10,680 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	35.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	92.00	32.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.9100e-003	0.0000	3.9100e-003	5.9000e-004	0.0000	5.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2436	0.1511	2.4000e-004		0.0144	0.0144		0.0134	0.0134	0.0000	21.6923	21.6923	5.5000e-003	0.0000	21.8297
Total	0.0248	0.2436	0.1511	2.4000e-004	3.9100e-003	0.0144	0.0183	5.9000e-004	0.0134	0.0140	0.0000	21.6923	21.6923	5.5000e-003	0.0000	21.8297

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3.2 Demolition - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1000e-004	6.5400e-003	1.4800e-003	1.0000e-005	3.0000e-004	5.0000e-005	3.5000e-004	8.0000e-005	5.0000e-005	1.3000e-004	0.0000	1.3699	1.3699	8.0000e-005	0.0000	1.3718
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-004	6.7000e-004	5.8000e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1132	1.1132	5.0000e-005	0.0000	1.1143
Total	9.1000e-004	7.2100e-003	7.2800e-003	2.0000e-005	1.5500e-003	6.0000e-005	1.6100e-003	4.1000e-004	6.0000e-005	4.7000e-004	0.0000	2.4831	2.4831	1.3000e-004	0.0000	2.4862

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.9100e-003	0.0000	3.9100e-003	5.9000e-004	0.0000	5.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2436	0.1511	2.4000e-004		0.0144	0.0144		0.0134	0.0134	0.0000	21.6923	21.6923	5.5000e-003	0.0000	21.8297
Total	0.0248	0.2436	0.1511	2.4000e-004	3.9100e-003	0.0144	0.0183	5.9000e-004	0.0134	0.0140	0.0000	21.6923	21.6923	5.5000e-003	0.0000	21.8297

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3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1000e-004	6.5400e-003	1.4800e-003	1.0000e-005	3.0000e-004	5.0000e-005	3.5000e-004	8.0000e-005	5.0000e-005	1.3000e-004	0.0000	1.3699	1.3699	8.0000e-005	0.0000	1.3718
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-004	6.7000e-004	5.8000e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1132	1.1132	5.0000e-005	0.0000	1.1143
Total	9.1000e-004	7.2100e-003	7.2800e-003	2.0000e-005	1.5500e-003	6.0000e-005	1.6100e-003	4.1000e-004	6.0000e-005	4.7000e-004	0.0000	2.4831	2.4831	1.3000e-004	0.0000	2.4862

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0208	8.0800e-003	2.0000e-005		9.5000e-004	9.5000e-004		8.8000e-004	8.8000e-004	0.0000	1.5743	1.5743	4.9000e-004	0.0000	1.5866
Total	1.8100e-003	0.0208	8.0800e-003	2.0000e-005	5.8000e-003	9.5000e-004	6.7500e-003	2.9500e-003	8.8000e-004	3.8300e-003	0.0000	1.5743	1.5743	4.9000e-004	0.0000	1.5866

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3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	4.0000e-005	3.6000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0685	0.0685	0.0000	0.0000	0.0686
Total	4.0000e-005	4.0000e-005	3.6000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0685	0.0685	0.0000	0.0000	0.0686

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0208	8.0800e-003	2.0000e-005		9.5000e-004	9.5000e-004		8.8000e-004	8.8000e-004	0.0000	1.5743	1.5743	4.9000e-004	0.0000	1.5866
Total	1.8100e-003	0.0208	8.0800e-003	2.0000e-005	5.8000e-003	9.5000e-004	6.7500e-003	2.9500e-003	8.8000e-004	3.8300e-003	0.0000	1.5743	1.5743	4.9000e-004	0.0000	1.5866

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3.3 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	4.0000e-005	3.6000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0685	0.0685	0.0000	0.0000	0.0686
Total	4.0000e-005	4.0000e-005	3.6000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0685	0.0685	0.0000	0.0000	0.0686

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0341	0.0135	3.0000e-005		1.5900e-003	1.5900e-003		1.4600e-003	1.4600e-003	0.0000	2.5787	2.5787	8.0000e-004	0.0000	2.5988
Total	2.9900e-003	0.0341	0.0135	3.0000e-005	9.8300e-003	1.5900e-003	0.0114	5.0500e-003	1.4600e-003	6.5100e-003	0.0000	2.5787	2.5787	8.0000e-004	0.0000	2.5988

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3.4 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	8.0000e-005	7.1000e-004	0.0000	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1370	0.1370	1.0000e-005	0.0000	0.1372
Total	9.0000e-005	8.0000e-005	7.1000e-004	0.0000	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1370	0.1370	1.0000e-005	0.0000	0.1372

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0341	0.0135	3.0000e-005		1.5900e-003	1.5900e-003		1.4600e-003	1.4600e-003	0.0000	2.5787	2.5787	8.0000e-004	0.0000	2.5988
Total	2.9900e-003	0.0341	0.0135	3.0000e-005	9.8300e-003	1.5900e-003	0.0114	5.0500e-003	1.4600e-003	6.5100e-003	0.0000	2.5787	2.5787	8.0000e-004	0.0000	2.5988

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3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	8.0000e-005	7.1000e-004	0.0000	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1370	0.1370	1.0000e-005	0.0000	0.1372
Total	9.0000e-005	8.0000e-005	7.1000e-004	0.0000	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1370	0.1370	1.0000e-005	0.0000	0.1372

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2592	1.7428	1.3877	2.2000e-003		0.1058	0.1058		0.1022	0.1022	0.0000	184.2346	184.2346	0.0371	0.0000	185.1618
Total	0.2592	1.7428	1.3877	2.2000e-003		0.1058	0.1058		0.1022	0.1022	0.0000	184.2346	184.2346	0.0371	0.0000	185.1618

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3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0172	0.3839	0.1298	6.4000e-004	0.0145	3.5600e-003	0.0181	4.2000e-003	3.4100e-003	7.6100e-003	0.0000	61.8142	61.8142	4.1000e-003	0.0000	61.9167
Worker	0.0492	0.0474	0.4103	8.7000e-004	0.0886	6.2000e-004	0.0892	0.0235	5.7000e-004	0.0241	0.0000	78.7794	78.7794	3.2400e-003	0.0000	78.8605
Total	0.0665	0.4314	0.5400	1.5100e-003	0.1031	4.1800e-003	0.1073	0.0277	3.9800e-003	0.0317	0.0000	140.5936	140.5936	7.3400e-003	0.0000	140.7772

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2592	1.7428	1.3877	2.2000e-003		0.1058	0.1058		0.1022	0.1022	0.0000	184.2344	184.2344	0.0371	0.0000	185.1616
Total	0.2592	1.7428	1.3877	2.2000e-003		0.1058	0.1058		0.1022	0.1022	0.0000	184.2344	184.2344	0.0371	0.0000	185.1616

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3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0172	0.3839	0.1298	6.4000e-004	0.0145	3.5600e-003	0.0181	4.2000e-003	3.4100e-003	7.6100e-003	0.0000	61.8142	61.8142	4.1000e-003	0.0000	61.9167
Worker	0.0492	0.0474	0.4103	8.7000e-004	0.0886	6.2000e-004	0.0892	0.0235	5.7000e-004	0.0241	0.0000	78.7794	78.7794	3.2400e-003	0.0000	78.8605
Total	0.0665	0.4314	0.5400	1.5100e-003	0.1031	4.1800e-003	0.1073	0.0277	3.9800e-003	0.0317	0.0000	140.5936	140.5936	7.3400e-003	0.0000	140.7772

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.0900e-003	0.0523	0.0450	7.0000e-005		3.0500e-003	3.0500e-003		2.8100e-003	2.8100e-003	0.0000	6.1073	6.1073	1.8700e-003	0.0000	6.1540
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.0900e-003	0.0523	0.0450	7.0000e-005		3.0500e-003	3.0500e-003		2.8100e-003	2.8100e-003	0.0000	6.1073	6.1073	1.8700e-003	0.0000	6.1540

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3.6 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	3.4000e-004	2.9000e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5566	0.5566	2.0000e-005	0.0000	0.5572
Total	3.5000e-004	3.4000e-004	2.9000e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5566	0.5566	2.0000e-005	0.0000	0.5572

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.0900e-003	0.0523	0.0450	7.0000e-005		3.0500e-003	3.0500e-003		2.8100e-003	2.8100e-003	0.0000	6.1073	6.1073	1.8700e-003	0.0000	6.1540
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.0900e-003	0.0523	0.0450	7.0000e-005		3.0500e-003	3.0500e-003		2.8100e-003	2.8100e-003	0.0000	6.1073	6.1073	1.8700e-003	0.0000	6.1540

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3.6 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	3.4000e-004	2.9000e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5566	0.5566	2.0000e-005	0.0000	0.5572
Total	3.5000e-004	3.4000e-004	2.9000e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5566	0.5566	2.0000e-005	0.0000	0.5572

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3075					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1400e-003	0.0211	0.0195	3.0000e-005		1.5800e-003	1.5800e-003		1.5800e-003	1.5800e-003	0.0000	2.6809	2.6809	2.5000e-004	0.0000	2.6873
Total	0.3106	0.0211	0.0195	3.0000e-005		1.5800e-003	1.5800e-003		1.5800e-003	1.5800e-003	0.0000	2.6809	2.6809	2.5000e-004	0.0000	2.6873

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3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0100e-003	9.7000e-004	8.4300e-003	2.0000e-005	1.8200e-003	1.0000e-005	1.8300e-003	4.8000e-004	1.0000e-005	5.0000e-004	0.0000	1.6184	1.6184	7.0000e-005	0.0000	1.6201
Total	1.0100e-003	9.7000e-004	8.4300e-003	2.0000e-005	1.8200e-003	1.0000e-005	1.8300e-003	4.8000e-004	1.0000e-005	5.0000e-004	0.0000	1.6184	1.6184	7.0000e-005	0.0000	1.6201

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3075					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1400e-003	0.0211	0.0195	3.0000e-005		1.5800e-003	1.5800e-003		1.5800e-003	1.5800e-003	0.0000	2.6809	2.6809	2.5000e-004	0.0000	2.6873
Total	0.3106	0.0211	0.0195	3.0000e-005		1.5800e-003	1.5800e-003		1.5800e-003	1.5800e-003	0.0000	2.6809	2.6809	2.5000e-004	0.0000	2.6873

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3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0100e-003	9.7000e-004	8.4300e-003	2.0000e-005	1.8200e-003	1.0000e-005	1.8300e-003	4.8000e-004	1.0000e-005	5.0000e-004	0.0000	1.6184	1.6184	7.0000e-005	0.0000	1.6201
Total	1.0100e-003	9.7000e-004	8.4300e-003	2.0000e-005	1.8200e-003	1.0000e-005	1.8300e-003	4.8000e-004	1.0000e-005	5.0000e-004	0.0000	1.6184	1.6184	7.0000e-005	0.0000	1.6201

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1318					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2000e-003	8.2600e-003	8.2900e-003	1.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	1.1490	1.1490	1.0000e-004	0.0000	1.1514
Total	0.1330	8.2600e-003	8.2900e-003	1.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	1.1490	1.1490	1.0000e-004	0.0000	1.1514

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3.7 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	3.7000e-004	3.1700e-003	1.0000e-005	7.8000e-004	1.0000e-005	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6732	0.6732	3.0000e-005	0.0000	0.6738
Total	3.9000e-004	3.7000e-004	3.1700e-003	1.0000e-005	7.8000e-004	1.0000e-005	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6732	0.6732	3.0000e-005	0.0000	0.6738

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1318					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2000e-003	8.2600e-003	8.2900e-003	1.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	1.1490	1.1490	1.0000e-004	0.0000	1.1514
Total	0.1330	8.2600e-003	8.2900e-003	1.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	1.1490	1.1490	1.0000e-004	0.0000	1.1514

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3.7 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	3.7000e-004	3.1700e-003	1.0000e-005	7.8000e-004	1.0000e-005	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6732	0.6732	3.0000e-005	0.0000	0.6738
Total	3.9000e-004	3.7000e-004	3.1700e-003	1.0000e-005	7.8000e-004	1.0000e-005	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6732	0.6732	3.0000e-005	0.0000	0.6738

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0731	0.3152	0.8480	2.1800e-003	0.1876	2.7400e-003	0.1904	0.0503	2.5800e-003	0.0528	0.0000	199.3852	199.3852	8.6300e-003	0.0000	199.6010
Unmitigated	0.0731	0.3152	0.8480	2.1800e-003	0.1876	2.7400e-003	0.1904	0.0503	2.5800e-003	0.0528	0.0000	199.3852	199.3852	8.6300e-003	0.0000	199.6010

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	146.30	140.58	128.92	363,443	363,443
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	80.00	12.30	5.25	135,697	135,697
Total	226.30	152.88	134.17	499,140	499,140

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
Enclosed Parking with Elevator	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Enclosed Parking with Elevator	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Apartments Mid Rise	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	403.7448	403.7448	0.0183	3.7800e-003	405.3268
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	403.7448	403.7448	0.0183	3.7800e-003	405.3268
NaturalGas Mitigated	1.7600e-003	0.0153	8.1600e-003	1.0000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	17.3843	17.3843	3.3000e-004	3.2000e-004	17.4876
NaturalGas Unmitigated	1.7600e-003	0.0153	8.1600e-003	1.0000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	17.3843	17.3843	3.3000e-004	3.2000e-004	17.4876

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	243520	1.3100e-003	0.0112	4.7700e-003	7.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	12.9951	12.9951	2.5000e-004	2.4000e-004	13.0724
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	82250	4.4000e-004	4.0300e-003	3.3900e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	4.3892	4.3892	8.0000e-005	8.0000e-005	4.4153
Total		1.7500e-003	0.0153	8.1600e-003	9.0000e-005		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003	0.0000	17.3843	17.3843	3.3000e-004	3.2000e-004	17.4876

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	243520	1.3100e-003	0.0112	4.7700e-003	7.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	12.9951	12.9951	2.5000e-004	2.4000e-004	13.0724
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	82250	4.4000e-004	4.0300e-003	3.3900e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	4.3892	4.3892	8.0000e-005	8.0000e-005	4.4153
Total		1.7500e-003	0.0153	8.1600e-003	9.0000e-005		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003	0.0000	17.3843	17.3843	3.3000e-004	3.2000e-004	17.4876

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	97041.3	28.2304	1.2800e-003	2.6000e-004	28.3411
Enclosed Parking with Elevator	1.19972e+006	349.0123	0.0158	3.2700e-003	350.3798
General Office Building	91100	26.5020	1.2000e-003	2.5000e-004	26.6059
Total		403.7448	0.0183	3.7800e-003	405.3268

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	97041.3	28.2304	1.2800e-003	2.6000e-004	28.3411
Enclosed Parking with Elevator	1.19972e+006	349.0123	0.0158	3.2700e-003	350.3798
General Office Building	91100	26.5020	1.2000e-003	2.5000e-004	26.6059
Total		403.7448	0.0183	3.7800e-003	405.3268

6.0 Area Detail

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6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1707	3.5500e-003	0.3081	2.0000e-005		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	0.5039	0.5039	5.2000e-004	0.0000	0.5169
Unmitigated	0.1707	3.5500e-003	0.3081	2.0000e-005		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	0.5039	0.5039	5.2000e-004	0.0000	0.5169

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6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0439					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1170					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.8700e-003	3.5500e-003	0.3081	2.0000e-005		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	0.5039	0.5039	5.2000e-004	0.0000	0.5169
Total	0.1707	3.5500e-003	0.3081	2.0000e-005		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	0.5039	0.5039	5.2000e-004	0.0000	0.5169

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0439					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1170					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.8700e-003	3.5500e-003	0.3081	2.0000e-005		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	0.5039	0.5039	5.2000e-004	0.0000	0.5169
Total	0.1707	3.5500e-003	0.3081	2.0000e-005		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	0.5039	0.5039	5.2000e-004	0.0000	0.5169

7.0 Water Detail

7.1 Mitigation Measures Water

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	5.8666	0.0759	1.8300e-003	8.3107
Unmitigated	5.8666	0.0759	1.8300e-003	8.3107

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	1.43339 / 0.903658	3.6312	0.0469	1.1300e-003	5.1399
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0.888669 / 0.544668	2.2354	0.0291	7.0000e-004	3.1707
Total		5.8666	0.0759	1.8300e-003	8.3107

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	1.43339 / 0.903658	3.6312	0.0469	1.1300e-003	5.1399
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0.888669 / 0.544668	2.2354	0.0291	7.0000e-004	3.1707
Total		5.8666	0.0759	1.8300e-003	8.3107

8.0 Waste Detail

8.1 Mitigation Measures Waste

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.9982	0.1772	0.0000	7.4279
Unmitigated	2.9982	0.1772	0.0000	7.4279

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	10.12	2.0543	0.1214	0.0000	5.0894
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	4.65	0.9439	0.0558	0.0000	2.3385
Total		2.9982	0.1772	0.0000	7.4279

Palm & Nipomo Project - Alternative 2 - San Luis Obispo County, Annual

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	10.12	2.0543	0.1214	0.0000	5.0894
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	4.65	0.9439	0.0558	0.0000	2.3385
Total		2.9982	0.1772	0.0000	7.4279

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

Greenhouse Gas Emission Worksheet
N2O Mobile Emissions

Nipomo Palm Parking Alternative 2

From CalEEMod:

Annual VMT: 499,140

Vehicle Type	Percent Type	CH4 Emission Factor (g/mile)*	CH4 Emission (g/mile)**	N2O Emission Factor (g/mile)*	N2O Emission (g/mile)**
Light Auto	56.0%	0.04	0.0224	0.04	0.0224
Light Truck < 3750 lbs	3.2%	0.05	0.0016	0.06	0.00192
Light Truck 3751-5750 lbs	19.9%	0.05	0.00995	0.06	0.01194
Med Truck 5751-8500 lbs	13.0%	0.12	0.0156	0.2	0.026
Lite-Heavy Truck 8501-10,000 lbs	3.1%	0.12	0.00372	0.2	0.0062
Lite-Heavy Truck 10,001-14,000 lbs	0.7%	0.09	0.00063	0.125	0.000875
Med-Heavy Truck 14,001-33,000 lbs	1.3%	0.06	0.00078	0.05	0.00065
Heavy-Heavy Truck 33,001-60,000 lbs	1.9%	0.06	0.00114	0.05	0.00095
Other Bus	0.2%	0.06	0.00012	0.05	0.0001
Urban Bus	0.1%	0.06	0.00006	0.05	0.00005
Motorcycle	0.5%	0.09	0.00045	0.01	0.00005
School Bus	0.0%	0.06	0	0.05	0
Motor Home	0.1%	0.09	0.00009	0.125	0.000125
Total	100.0%		0.05654		0.07126

Total Emissions (metric tons) =

Emission Factor by Vehicle Mix (g/mi) x Annual VMT(mi) x 0.000001 metric tons/g

Conversion to Carbon Dioxide Equivalency (CO2e) Units based on Global Warming Potential (GWP)

CH4 21 GWP
 N2O 310 GWP
 1 ton (short, US) = 0.90718474 metric ton

Annual Mobile Emissions:

	Total Emissions	Total CO2e units
N2O Emissions:	0.0356 metric tons N2O	11.03 metric tons CO2e
Project Total:		11.03 metric tons CO2e

References

- * from Table C.4: Methane and Nitrous Oxide Emission Factors for Mobile Sources by Vehicle and Fuel Type (g/mile). in California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009. Assume Model year 2000-present, gasoline fueled.
- ** Source: California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.

Appendix B

Geotechnical, Geologic, and Hazardous Materials Assessment Report

**GEOTECHNICAL, GEOLOGIC, AND
HAZARDOUS MATERIALS
ASSESSMENT REPORT
PALM AND NIPOMO PARKING STRUCTURE
PALM AND NIPOMO STREETS
SAN LUIS OBISPO, CALIFORNIA**

April 21, 2011

Prepared for
Watry Design, Inc.
Attn: Ms. Michelle Wendler

Prepared by
Earth Systems Pacific
4378 Old Santa Fe Road
San Luis Obispo, CA 93401

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April 21, 2011

FILE NO.: SL-16264-SA

Ms. Michelle Wendler, AIA
Watry Design, Inc.
1700 Seaport Boulevard, Suite 210
Redwood City, CA 94063

PROJECT: PALM AND NIPOMO PARKING STRUCTURE
PALM AND NIPOMO STREETS
SAN LUIS OBISPO, CALIFORNIA

SUBJECT: Geotechnical, Geologic, and Hazardous Materials Assessment Report

CONTRACT

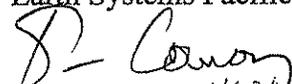
REF.: Letter of Agreement for Design Consulting Services, Palm Nipomo Parking Structure, San Luis Obispo, CA, by Watry Design, Inc., dated July 19, 2010, WDI Job #09079.111

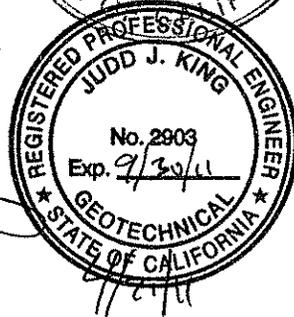
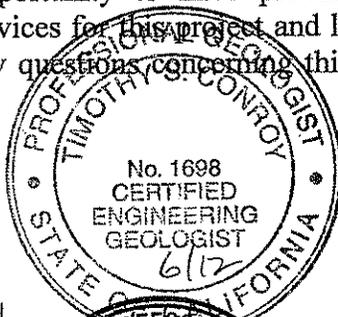
Dear Ms. Wendler:

In accordance with the above-referenced agreement, this geotechnical, geologic, and hazardous materials assessment report has been prepared for use in the on-going development and planning phase of the Palm and Nipomo Parking structure in San Luis Obispo, California. This report is based upon a review of published and unpublished maps and literature, a site reconnaissance and subsurface exploration program, laboratory testing, and evaluation of the information obtained. Two bound copies and one digital copy of this report are furnished for your use. As requested, an additional digital copy is being forwarded as indicated below.

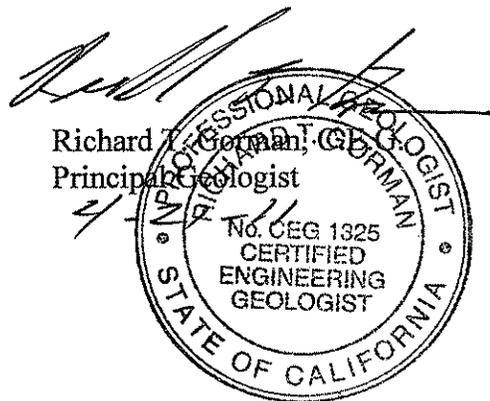
We appreciate the opportunity to have provided geotechnical engineering, geologic, and hazardous materials services for this project and look forward to working with you again in the future. If there are any questions concerning this report, please do not hesitate to contact the undersigned.

Sincerely,
Earth Systems Pacific


Timothy Conroy, C.E.G.
Principal Geologist




Judd J. King, G.E.
Senior Engineer



Richard J. Gorman, C.E.G.
Principal Geologist

Copy to: Watry Design, Inc., Attn: Ms. Melinda Veregge

Doc. No.: 1104-091.RPT/rw



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APPENDICES

APPENDIX A	Site Vicinity Map (1 Page) Boring Location Map (1 Page) Log Key, Kleinfelder (1 Page) Boring Logs 1 through 3, Kleinfelder, (5 Pages) Boring Log Legend, Earth Systems Pacific (1 Page) Boring Logs 4 through 8, Earth Systems Pacific (8 Pages)
APPENDIX B	Geologic Map (1 page) FIRM Flood Zone Map (1 page)
APPENDIX C	Geotechnical Laboratory Test Results, Earth Systems Pacific (8 Pages) Geotechnical Laboratory Test Results, Kleinfelder (3 Pages)
APPENDIX D	Hazardous Materials Laboratory Test Results (10 Pages) Chain of Custody Documents (2 Pages)



1.0 INTRODUCTION AND SITE SETTING

The proposed five-level parking structure will be constructed where an existing surface parking lot is located at the southeast corner (in reference to Project North on the Site Vicinity Map in Appendix A) of Palm and Nipomo Streets in San Luis Obispo, California. According to the most recent site plan for Option A (Watry, 2011), the lowest level of the 420-parking space garage will be at an approximate elevation of 190 feet (El. 190). We understand that Option A is the preferred layout of the proposed structure. No other options are addressed herein. The upper four stories of the project will have a similar layout as the lowest level; roughly square. Vehicular access to the garage will occur at two locations; one at the northeast corner off Palm Street and the second at the southwest corner off Nipomo Street. Pedestrian access to the structure is planned at the northeast, southwest, and southeast corners. The proposed structure will encompass the northern two-thirds of the subject land that lies between Monterey and Palm Streets. The southern one-third is being set aside as the future location of the San Luis Obispo Little Theatre. A buffer parcel will be created along the west side of the garage. This parcel, which measures approximately 19 feet wide and 100 feet long, is slated for future commercial use and is not a part of this project and therefore not addressed herein.

The site slopes to the northwest with surface elevations of 203 feet at the southeast corner to El. 190 at the northwest corner. At planned finish floor of the lowest level (El. 190), the finish floor will be within 3 feet of existing grade along the north (Palm Street) and west (Nipomo Street) sides. The southeast corner of the structure will be situated approximately 13 feet below existing grade.

The site is currently used as a surface parking lot by the City of San Luis Obispo. Two residential parcels with existing structures, one at the northeast corner and one at the southwest corner, will be incorporated into the overall project. The structures on these lots will be razed. Mission Preparatory School is situated north of the site, an apartment building lies directly to the east, and two existing residences are situated on the south side of the site near the corner of Monterey and Nipomo streets. To the west, across Nipomo Street are various commercial businesses. The Hays-Latimer Adobe is located directly southeast of the project site.

We have assumed the parking garage will be of pre-stressed and/or post-tensioned Portland cement concrete (PCC) and masonry construction with property line retaining walls up to 15 feet tall. It is anticipated that exterior flatwork will be of PCC construction and that limited areas of asphalt concrete (AC) are planned.



For the purpose of this assessment report, preliminary maximum continuous loads of 15 klf and maximum concentrated loads of 800 kips have been assumed. The assumed loads include dead and live loads that are approximately two-thirds dead and one-third live.

A Constraints-Level Environmental and Geotechnical Assessment report was prepared by Kleinfelder, Inc. (Kleinfelder) in 2005. According to this report the subject site consists of several lots that have been used for residential and commercial purposes. The report indicated that a property in the northwest corner of the site, variously identified as 609 Palm Street and 960 Nipomo Street, had been used as a welding shop from circa 1942 to 1985 and later as an automotive repair business. In the 1980's, these parcels were consolidated to create the current municipal parking lot.

2.0 SCOPE OF SERVICES

The scope of work for this geotechnical, geologic, and hazardous materials assessment included research of existing information about the general area, a site reconnaissance and field investigation, laboratory testing, analysis of data, and preparation of this report. The tests were performed in general conformance with the standards cited, as modified by common geotechnical/geologic/environmental practice in this area under similar conditions at this time. The study and subsequent assessment are based upon information and a conceptual site plan provided by the client.

In 2005, Kleinfelder prepared a constraints level environmental and geotechnical assessment for the site (Kleinfelder, 2005). As a part of that assessment, Kleinfelder performed a field investigation, laboratory analyses, and prepared an assessment report. Upon review of that report, it was determined that acquisition of further data was warranted. As a result, additional information was obtained and this study was prepared to supplement the Kleinfelder assessment and address the major geotechnical, geologic, and hazardous material issues that could potentially affect the project, thus providing a framework for continued project planning. The intent of this report is to provide geotechnical, geologic, and hazardous materials information to be used in the preparation of an Initial Environmental Study (IES), which is being prepared by others. In addition to the information needed for the IES, we are also providing a discussion of the overall feasibility of the project, particularly from a geotechnical standpoint. Also included are recommendations for future study and analyses as the project further develops toward the design and construction phase. This report is intended to be used solely by the client in planning the project.

In the event that there are any changes in the nature, design, or location of improvements, or if any of the assumptions used in the preparation of this report prove to be incorrect, the



conclusions contained in this report shall not be considered valid unless the changes are reviewed and the conclusions of this report verified or modified by the soils engineer and/or geologist in writing. Please note that this report is not intended as a design level document. The criteria presented in this report are considered preliminary until such time as they are modified by the soils engineer or verified by additional studies such as a design-level geotechnical engineering report. It is possible that variations exist beyond or between points explored during the course of this investigation. Changes in conditions could also occur due to contaminant migration, variations in rainfall, temperature, or other factors not apparent at the time of field work.

This report does not address issues in the domain of contractors such as, but not limited to, site safety, loss of volume due to stripping of the site, shrinkage of soils during compaction, excavatability, dewatering, shoring, temporary slope angles, construction means and methods, etc. Analyses of the soil for mold potential, man-made asbestos, corrosivity, radioisotopes, or chemical properties other than those addressed for hazardous materials analyses are beyond the scope of this report. Ancillary features such as access roads, fences, flag and light poles, signage, exterior flatwork, above or below ground drainage basins, and nonstructural fills are not within our scope and are also not addressed.

3.0 FIELD INVESTIGATION

As a part of the previous assessment by Kleinfelder, on February 15, 2005, three exploratory borings (Borings 1 through 3) were drilled at the site to depths ranging from 21.5 to 41.5 feet below the surface. To supplement this information, five exploratory borings (Borings 4 through 8) were drilled by this firm to depths of 11.5 to 46.5 feet on August 18, 2010. Borings 4 through 8 were drilled using a truck-mounted Mobile Drill rig, Model B-53, equipped with an 8-inch outside diameter hollow stem auger. The locations of the Kleinfelder borings, as well as the borings by this firm, are depicted on the Boring Location Map in Appendix A.

Soils encountered in the borings by this firm were categorized and logged in general accordance with the Unified Soil Classification System and ASTM D 2488-09a. The approximate surface elevations at the boring locations were determined from a topographic map of the site prepared by RRM.Design Group (RRM, 2006). Logs of the borings by this firm are also attached, along with a boring log legend. In reviewing the boring logs and legend, the reader should recognize that the legend is intended as a guideline only, and there are a number of conditions that may influence the soil characteristics as observed during drilling. These include, but are not limited to, the presence of cobbles or boulders, cementation, variations in soil moisture, presence of groundwater, and other factors. Consequently, the logger must exercise judgment in interpreting soil characteristics, possibly resulting in soil descriptions that vary somewhat from the legend. Where rock was encountered, its properties were described based upon observation of ring



and/or Standard Penetration Test samples, observation of the auger cuttings, the effort required to drill into the rock, and the effort required to drive samplers into the rock.

As the borings were drilled by this firm, Standard Penetration Tests (SPT) were performed (ASTM D 1586-08a) and soil samples were obtained using a ring-lined barrel sampler (ASTM D 3550-01/07 with shoe similar to D 2937-04). Bulk samples were obtained from the auger cuttings. To explore the potential for hazardous materials, Borings 4 through 6 were drilled in the general area of the former welding shop/auto repair business, and soil samples were collected from these borings for chemical analysis. Samples were collected from depths of 2, 5 and 10 feet using a 2.5-inch diameter drive sampler lined with stainless steel sleeves. Sample sleeves were capped with Teflon, labeled and placed on ice for transport to the testing laboratory. Sampling equipment was cleaned between samples to reduce the potential for cross-contamination.

4.0 LABORATORY ANALYSES

Geotechnical

Ring samples were tested for unit weight and moisture (ASTM D 2937-04, as modified for ring liners). Two SPT samples were combined as a composite sample and tested for expansion index (ASTM D 4829-08a). The angle of shearing resistance and cohesion (ASTM D 3080-04) was determined for one ring sample. Three samples were analyzed for grain size distribution (ASTM D 1140-06 and D 422-07), and two ring samples were tested for unconfined compressive strength (ASTM D 2166-06). The Kleinfelder report presented laboratory tests on soil samples that included a test on a ring sample for one-dimensional consolidation and unconfined compressive strength tests on two ring samples. The geotechnical laboratory data, including the data from Kleinfelder are presented in Appendix C.

Hazardous Materials

Nine soil samples were submitted to a State-certified laboratory, Oilfield Environmental and Compliance, Inc. for analysis. Each sample was analyzed for Total Petroleum Hydrocarbons (TPH) as diesel and motor oil by EPA Test Method 8015m, and four of the samples were analyzed for LUFT Metals (cadmium, chromium, lead, nickel and zinc) by EPA Test Method 6020. The test results are presented in Appendix D.

5.0 SUBSURFACE PROFILE

Preliminary subsurface information was presented in a letter from this firm following our field investigation (ESP, 2010). Subsurface conditions encountered in the borings were generally consistent. In the borings drilled by this firm, pavement sections in the parking lot consisted of 3.5 to 7.5 inches of AC over 4 inches of aggregate base. Beneath the pavement sections,



subsurface conditions consisted of fill and alluvium overlying bedrock materials of the Franciscan Mélange.

Fill was encountered below the pavement sections in Borings 4 and 8. In Boring 4, the fill consisted of medium stiff sandy lean clay to a depth of 5.5 feet. In Boring 8, fill, consisting of medium dense silty sand with gravel was encountered to a depth of 3 feet. Below the fill in Borings 4 and 8 and beneath the pavement sections of Borings 1 through 3, and 5 through 7, alluvium was encountered. The alluvium consisted of clay and clayey sand with various proportions of clay, sand, and gravel. The clays were generally stiff to hard and the sands, where encountered, were generally medium dense to dense.

In Borings 1, 2, 4, 7, and 8, bedrock was encountered at depths of 25 to 44 feet below the surface. Kleinfelder classified the rock as a highly to moderately foliated and weak to moderately strong shale. This firm classified the bedrock as very soft to soft Metavolcanic rock in Borings 4 and 8. Very soft claystone was recovered in Boring 7. Bedrock materials encountered by this firm were logged as being intensely to moderately weathered and fractured. No field signs of contamination (odor, discoloration) were noted in any of the borings. Soils and rock were logged as being moist to wet. Subsurface water was encountered at depths of 23 to 34 feet below the surface. Table 1 summarizes the eight borings drilled at the site.

Table 1
Exploratory Boring Summary

Boring No.	Surface Elevation*, ft	Date Drilled	Subsurface Water Elevation, ft.	Bedrock Elevation, ft
1	205.5	2/15/2005	175.5	165.0
2	190.0	2/15/2005	NA	164.0
3	201.0	2/15/2005	NA	NA
4	190.0	8/18/2010	166.0	165.0
5	191.0	8/18/2010	NA	NA
6	190.5	8/18/2010	NA	NA
7	200.5	8/18/2010	177.5	167.5
8	204.0	8/18/2010	170.0	160.0

* Surface elevations estimated from topographic map by RRM Design Group, dated 2006



6.0 HAZARDOUS MATERIALS ASSESSMENT

Project Background

According to the Constraints-Level Environmental Assessment report (Kleinfelder, 2005), the subject site consists of several lots that have historically been used for residential and commercial purposes. The report indicates that a property in the northwest corner of the site, identified as 609 Palm Street and 960 Nipomo Street, had been used as a welding shop from circa 1942 to 1985 and later as an automotive repair business.

Archived documents at the San Luis Obispo Fire Department indicated that the welding/repair shop contained several areas of oil-stained soil, a dry well and a hydraulic lift. These features were reportedly removed or addressed in the late 1980's. At that time, the site was converted into a municipal parking lot, which is the current use. It is not known, however, whether confirmation sampling was conducted at the time of the removal of the dry well and hydraulic lift, as no such documents were present in the Fire Department files.

As part of their 2005 study, Kleinfelder drilled three exploratory borings at the site. Soil samples from the borings were analyzed for volatile and semi-volatile organic compounds (VOCs/SVOCs), and for cadmium, chromium, nickel, lead and zinc. Because of the preliminary nature of the study, only one sample, collected at a depth of 5 feet was analyzed from each boring. VOCs and SVOCs were not detected in any of the samples analyzed by Kleinfelder. Cadmium, lead and zinc were detected at typical background concentrations. Nickel and chromium concentrations were somewhat elevated, but were below their respective thresholds for hazardous waste disposal. The elevated concentrations of these elements were attributed to the presence of metavolcanic rock of the Franciscan Mélange beneath the site, which commonly contains minerals with relatively high iron, nickel, chromium and magnesium concentrations.

The intent of additional sampling and testing was to obtain information on soils at shallower depths and in locations where historically, contaminants have been reported or detected.

Laboratory Test Results and Analyses

Diesel-range Total Petroleum Hydrocarbons (TPHd) were not detected in any of the nine samples submitted for analysis. Motor oil-range Total Petroleum Hydrocarbons (TPHo) were detected in three of the nine samples, at concentrations ranging from 71 to 3,700 milligrams per kilogram (mg/kg). Varying concentrations of metals were detected in each of the samples submitted for analysis. Test results and their corresponding regulatory thresholds are summarized in Table 2.



TPH results are listed in Table 3. Laboratory reports and chain-of-custody documents are included in Appendix D.

**TABLE 2
RESULTS OF SOIL ANALYSIS-METALS**

	B-4 @ 2'	B-4 @ 4'	B-5 @ 2'	B-6 @ 3'	TTLIC	STLC	10xSTLC	CHHSL
Cadmium	1.4	1.7	1.3	1.5	100	1.0	10	7.5/1.7
Chromium	280	200	120	130	500	5	50	10,000/ 10,000
Lead	25	45	14	27	1,000	5.0	50	320/80
Nickel	400	250	160	210	2,000	20	200	16,000/ 1,600
Zinc	69	89	65	66	5,000	250	2,500	100,000/ 23,000

Notes:

All results expressed in milligrams per kilogram (mg/kg)

TTLIC Total Threshold Limit Concentration, 22CCR §66699 (hazardous waste threshold)

STLC Soluble Threshold Limit Concentration, 22CCR §66699 (hazardous waste threshold)

CHHSL California Human Health Screening Level, commercial/residential setting, California OEHHA, 2009.

Numbers in bold typeface exceed 10X STLC threshold, indicating possible need for soluble analysis.

**TABLE 3
RESULTS OF SOIL ANALYSIS-HYDROCARBONS**

Sample ID	TPHd	TPHo
B-4 @ 2'	ND <10	ND <50
B-4 @ 4'	ND <10	140
B-4 @ 9'	ND <10	ND <50
B-5 @ 2'	ND <10	ND <50
B-5 @ 5'	ND <10	ND <50
B-5 @ 10'	ND <10	ND <50
B-6 @ 3'	ND <50	3,700
B-6 @ 5'	ND <10	71
B-6 @ 10'	ND <10	ND <50

Notes:

All results expressed in milligrams per kilogram (mg/kg)

Motor oil-range TPH concentrations in samples from Borings 4 and 6 at depths of 4 and 3 feet, respectively, exceed the City of San Luis Obispo Fire Department action level of 100 mg/kg. The vertical extent of TPH appears to be limited, as TPH concentrations from underlying samples were low or non-detectable.



Nickel and chromium were elevated in tested samples from Borings 4 through 6, but were below hazardous waste levels. The total concentrations detected are *theoretically* high enough to exceed soluble hazardous waste levels, assuming that 100% of the nickel and chromium are soluble; however, Kleinfelder's 2005 analysis indicates that only these elements are 2% to 7% soluble, and are well below hazardous waste thresholds. Although no soluble analysis was conducted during the current investigation, total concentrations were similar Kleinfelder's 2005 data, and thus we conclude that soluble concentrations would also be below hazardous waste thresholds.

Conclusions and Recommendations

Construction of the proposed parking structure will require excavation of a large volume of soil that will need to be removed from the site. The export of large volumes of soil will require consideration of several issues:

- Once the material has been excavated, it is technically considered a 'waste,' and hazardous waste regulations would apply to material exported from the site. Based on the data obtained to date, it is unlikely that the excavated soil would be classified as a hazardous waste; however, we recommend that supplemental testing for soluble nickel and chromium be conducted prior to excavation to confirm this assumption.
- While soils excavated from the site may not be classified as hazardous, they may not be suitable for use as fill on sites with sensitive uses, such as schools, hospitals or residential properties. Health-based thresholds for contaminants have been established by the California EPA, Office of Environmental Health Hazard Assessment (OEHHA). These thresholds, termed California Human Health Screening Levels (CHHSLs), have been developed using standard exposure assumptions and toxicity data published by the USEPA and California EPA (OEHHA, 2005). CHHSLs have been developed for two exposure scenarios: an unrestricted (residential) setting and a commercial/industrial setting. The levels of cadmium found in the samples approach the residential CHHSL of 1.7 mg/kg for this element, suggesting that the soil may not be suitable for sites with residential uses. None of the analytical data exceed or approach the commercial/industrial CHHSLs, and consequently the soil would be suitable for fill at these types of sites. Based on the results of soluble analysis from the 2005 Kleinfelder report, it appears unlikely that soluble concentrations of nickel or chromium will exceed hazardous waste thresholds; however, it is recommended that additional testing for soluble nickel and chromium be conducted on soils that will be exported from the site to verify that this is the case.



- Based on the former presence of the welding/auto repair shop, and comments in Fire Department files regarding subsurface features at that site (a mechanic's pit, dry well, etc.), there is a reasonable probability that these or other undocumented buried features will be encountered during excavation for the structure. It has been our experience at other large-scale excavations in the downtown area that it was common practice for older subsurface features to be abandoned in place. It is possible to perform shallow geophysical investigations to locate such features when their general location is known; however, smaller unknown features are difficult to identify during such an investigation. Although it does not appear that widespread soil contamination is present beneath the project, localized areas of contaminated soil associated with such abandoned structures should be anticipated during excavation.
- The levels of TPH found in Boring 6, and to a lesser extent in Boring 4, exceed the City Fire Department's action level of 100 mg/kg. It appears that the affected materials are limited to the upper few feet of soil; however, we recommend that additional shallow soil samples be collected in the northwest corner of the site prior to beginning earthwork, to confirm the findings of this initial assessment.

7.0 PRELIMINARY GEOTECHNICAL AND GEOLOGIC ASSESSMENT

Preliminary Geologic Assessment

The site lies on an alluvial plain within the San Luis Valley. San Luis Valley is bounded to the northeast by the San Lucia Range and to the southwest by the San Luis Range. The alluvial deposits underlying the site were generally deposited from Chorro Creek to the north and San Luis Creek, located south of the site. Based upon the borings drilled, alluvial deposits range in thickness from 25 to 44 feet and are underlain by metavolcanic rock and claystone of the Franciscan Mélange. The conditions encountered in the borings coincide with the mapped units on the Geologic Map in Appendix B. That map is based upon the published map by T.W. Dibblee, Jr. in 2004.

Landslides/Slope Instability

The site is relatively flat with no significant slopes on or immediately adjacent to the site. Therefore, the potential for landsliding or slope instability to occur on site considered to be very low.

Flooding and Erosion

The United States Department of Homeland Security, Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map (FIRM), Map No. 06079C1068F for San Luis Obispo



County, California, dated August 28, 2008, was evaluated for the site. The western side of the project area is located within in a 100-year Flood Zone that has 1.0 percent chance of being equaled or exceeded in any given year. According to the map, the flood elevation is 192, which is 2 feet above finish floor for the lowest level of the planned garage. Refer to the FIRM Flood Zone Map in Appendix B.

Surface water runoff at the site is generally by sheetflow. No evidence of significant erosion, such as gulying or rilling, was observed within or immediately around the site. The site is relatively flat with no significant drainages or creeks that cross or lie immediately adjacent to the site. It is judged that there is a low potential for erosion to occur on site; however, in the event of a flood (see previous paragraph) localized erosion may occur where soil is exposed. The potential for erosion could be increased if the development of the site results in an increased concentration of uncontrolled surface drainage.

Naturally Occurring Asbestos and Radon

Radon is a colorless, odorless gas present in soil and rock, which is derived from the decay of uranium. The occurrence of radon correlates with the presence of specific minerals, and it's concentrations in soil or rock will vary depending on the mineralogy of the surrounding bedrock, temperature, barometric pressure, moisture and other factors. According to Special Report 208, by the California Geological Survey (Churchill, 2008) radon is most commonly found in areas of San Luis Obispo County that are underlain by bedrock of the Monterey formation. The site is underlain by alluvial deposits, metavolcanic rock and claystone (Franciscan Mélange) which are not part of the Monterey formation. Therefore, the potential for naturally occurring radon gas to be present at the site is considered to be very low.

Asbestos occurs naturally in certain, known asbestos-bearing rock formations such serpentinite or ultramafic materials. The claystone and metavolcanic rock encountered in the borings are not asbestos-bearing geologic materials. Therefore, the potential for naturally-occurring asbestos to affect the project is considered to be very low to nil.

Fault Rupture

No mapped active faults cross or lie immediately adjacent to the site. The Los Osos, Hosgri, and San Andreas faults are considered to be the most significant regional active faults that could affect the proposed project during its anticipated lifespan. The closest active fault to the site is the Los Osos Fault which lies approximately 2.5 miles southwest. At this distance, there is only a very low potential for ground rupture to occur on site due to nearby active faults.



Ground Shaking

The site is in a region of generally high seismicity and has the potential to experience strong ground shaking from earthquakes on regional or local causative faults. To characterize the seismicity at the site and to provide seismic parameters, a seismic hazard analysis was performed to assess the deterministic ground motions that could occur at the site. The deterministic ground motions are based on the 2010 California Building Code (CBC) Section 1613.5.4, utilizing the United States Geological Survey Earthquake Hazards Program website (USGS, 2010). A CBC Site Class “D” was also used in the analysis. The results of the analysis are presented in Table 4.

**TABLE 4
SUMMARY OF RESPONSE ACCELERATION PARAMETERS**

Mapped Acceleration Values for Site Class B		2010 CBC Site Coefficients and General Procedure Adjusted MCE Spectral Response Acceleration Parameters For Site Class D Site Coordinates: 35.2795; -120.6663 (PGA = 0.36g)					
Seismic Parameter	Value (g)	Site Coefficients	Value (g)	Seismic Parameter	Value (g)	Seismic Parameter	Value (g)
S _s	1.37	F _a	1.00	S _{MS}	1.37	S _{DS}	0.910
S ₁	0.503	F _v	1.50	S _{M1}	0.754	S _{D1}	0.503

Liquefaction and Seismically Induced Settlement

Soil liquefaction is the loss of soil strength during a significant seismic event. During liquefaction, the energy from the earthquake causes the water pressure within the pores of the soil to increase. The increase in water pressure decreases the friction between the soil grains, allowing the soil grains to move relative to one another. During this state, the soil will behave as a viscous liquid, temporarily losing its ability to support foundations and other improvements. The high pressure water will flow through the soil along the path of least resistance. As the pressure is released, the soils typically settle in a process called “dynamic settlement.” Dynamic settlement can cause damage to structures and other surface and subsurface improvements.

Liquefaction potential is influenced by such factors as soil type, depth to groundwater, degree of seismic shaking, and density of the soil. It occurs most commonly in saturated, loose to medium dense, fine to medium grained sands, and sandy silts. Common types of liquefaction-related ground deformation include differential settlement and lateral spreading. In some cases, cracks in the ground surface occur, allowing mixtures of sand and water to be released at the surface in



conical deposits known as “sand boils.” Lightweight buried structures, such as pipelines and vaults, can also float to the surface. Other heavier structures can settle.

Layers of clayey sand, clayey gravel with sand, and clayey sand with gravel were encountered in some of the borings. A loose layer of clayey sand with gravel was recovered at a depth of 32 feet in Boring 8, which is located beyond the current project area. These materials were typically encountered directly above or slightly above the bedrock and were in a wet condition. It was judged that these layers of soil could potentially be liquefiable.

A liquefaction analysis requires both the earthquake magnitude and the Peak Ground Acceleration (PGA). The PGA was determined by dividing S_{DS} (see Table 4) by 2.5 as prescribed in CBC Section 1803.5.12.2, which resulted in a value of 0.36g. The seismicity of nearby faults was then deaggregated to determine the statistical mean and modal earthquake magnitudes that contributed to the site PGA. These two magnitudes were then compared to one another and the higher of the two was used in the analysis. In this case, the modal magnitude was higher than the mean magnitude; this value was a maximum moment magnitude of 7.8.

Using the developed seismic values, liquefaction potential at the site was analyzed following the guidelines of Special Publication 117 (CDMG, 1997, Revised 2008), and recommended procedures for analyzing liquefaction potential (Martin and others, 1999) using the “Simplified Procedure” as presented at the NCEER workshop and summarized by Youd and others (2001). The analysis also considered recent information presented by Seed and others (2003) and Idriss and others (2004). The analysis indicated that the potential for liquefaction and subsequent dynamic settlement to be very low to nil. This is mostly due to the density of the clay and granular soils, and the discontinuous nature of the potentially liquefiable layers.

Lateral Spreading

Lateral spreading can occur as a consequence of liquefaction. This phenomenon is confined to areas where the terrain is sloping, or where the liquefied zone extends below sloping terrain, and generally affects slopes along creeks, bays, or other water features bordered by slopes. This site is not situated near a body of water and the potential for liquefaction at this site is very low to nil. Therefore, the potential for lateral spreading is considered to be nil.

Seismically Induced Landslides

The site is relatively flat with no significant slopes on or within the immediate vicinity. Therefore, the potential for the seismically induced landsliding or slope instability to occur on site is considered to be nil.



Tsunami and Seiche Potential

The site is not located in the County of San Luis Obispo Tsunami Inundation Zone according to maps published by the California Emergency Management Agency. With elevations ranging between 190 and 203 feet and the fact that the site is 10 miles from the Pacific Ocean, the potential for a tsunami to affect the site is considered to be nil.

A seiche is a single water wave that can be generated in a reservoir, lake or pond as the result of long-period surface waves normally generated by strong local earthquakes or larger earthquakes at farther distances. The closest open body of water to the site is Laguna Lake. It is located approximately 1.63 miles west and is separated by Cerro San Luis and associated topography. Given the distance from Laguna Lake and the terrain that exists between the site and the lake, the potential for a seiche to affect the project site is nil.

Preliminary Geotechnical Assessment

In our opinion, the site appears suitable, from a geotechnical/geologic standpoint, for the proposed parking structure. No conditions were observed that would constitute a sufficiently severe geotechnical/geologic constraint that constructing the proposed project would be precluded. The primary geotechnical/geologic concerns anticipated at this site are the presence of existing fill, the potential for total and differential settlement of the structure, protection of the surrounding streets and other improvements during construction, and the soil's expansive nature. Other items discussed are lateral earth pressures and subsurface water.

Existing Fill

Fill was encountered in Boring 4, which was located on the north side of the site. The depth of fill was approximately 5.5 feet. Fill was also encountered in Boring 8, but this boring is beyond the limits of the currently proposed structure. Based upon the information discussed in the Hazardous Materials Assessment section of this report, this boring could be located where a feature of the previous welding/auto repair shop existed. According to our research, features including a dry well and a mechanic's pit may have been backfilled with undocumented fill material. The surface elevation where Boring 4 was drilled is nearly the proposed finish floor elevation of the structure. As a result, planned excavation of the site to construct the project would likely not remove the fill. The existing fill is not considered suitable to support the proposed structure. Regardless of the mitigative option for potential settlement (see below) any future grading recommendations should take into account the presence of this fill and mitigation of any fill encountered in this area will probably include removing and replacing it with properly moisture conditioned and compacted soil.



Total and Differential Settlement

The depth to bedrock varied from 25 to 44 feet below the surface in the borings. Considering the proposed finish floor elevation of 190, the bedrock surface is 22.5 to 30 feet below this proposed elevation. Soil below the proposed structure consists of interbedded layers of medium stiff to very stiff sandy lean clay and loose to medium dense clayey sands. The Kleinfelder report states that assuming allowable bearing capacities of 4,000 psf, estimated amounts of settlement of 1.5 to 2.0 inches could be expected. Given the local geologic and geotechnical conditions, the allowable bearing capacity that Kleinfelder assumed is higher than typically given for alluvial materials in San Luis Obispo. Depending upon the actual design loads of the structure, the degree of settlement stated in the Kleinfelder report might actually be on the low end. Considering the information available to date, there is a potential for excessive settlement of the parking structure if it is supported by conventional foundations without first performing some type of mitigative program. We considered several mitigative options to address the settlement potential of the site. These included overexcavation and recompaction, drilled caissons, driven piles, and rammed aggregate piers.

Mitigation of settlement potential can often be accomplished with a program of overexcavation and recompaction of the causative soils. Due to the relatively high anticipated loads of the parking structure, overexcavation depths on the order of 5 to 10 feet below the bottom of the proposed footing elevation may be warranted. Taking these depths into consideration, overexcavation and recompaction would likely be a considerable undertaking, due to the depth to which the subject soils extend and the limited working area of the project site. The removed soil would be moisture conditioned and placed back as compacted fill for a part of the depth. To provide bearing capacities of 2,000 to 3,000 psf, the upper portion of the fill below the foundations and slab areas should be an imported high quality granular fill such as Class 2 aggregate base or decomposed granite. For these presumed bearing capacities, foundations would need to be on the order of 3 feet in depth below lowest adjacent grade.

Another mitigative option would be to utilize some type of deep foundation system such as caissons or driven piles. Drilled caissons (CIDH piles), socketed into bedrock, have been used to support numerous structures including all of the other parking garages within the downtown area of San Luis Obispo. This type of deep foundation system would not involve as significant an amount of excavation as an overexcavation program. Caissons are able to support fairly large loads, which can be particularly advantageous for parking structures where concentrated column loads are common. Subsurface water was encountered at elevations of 166 to 177.5 feet. Drilling of caissons into the underlying bedrock would likely require the use of casing or drill fluid during construction of some of the holes if they do not stay open. It has been our experience that casing or drill fluid is typically utilized during caisson construction in this area of



San Luis Obispo. It is anticipated that skin friction values on the order of 800 to 1,300 psf for the underlying rock may be utilized for caisson design.

For the purposes of this assessment report, the use of driven piles was also considered. Such a process involves mobilizing large equipment, it is very noisy, and can damage nearby buildings. Given the proximity of historic buildings to the site and the noise sensitivity of the area, the use of driven piles does not seem to be a suitable solution for this project.

We also considered the use of rammed aggregate piers as another option for supporting the proposed structure. In this type of support, a rig is utilized to drill pilot holes to a specified depth. In this case we would consider the surface of the bedrock to be a likely depth of the piers. The holes are then sequentially filled with coarse aggregate and rammed with a proprietary device that consolidates the gravel thus creating firm, compacted bulbs in the soil matrix. The process modifies the ground and results in columns of very densely packed aggregate where foundation loads are more uniformly distributed through the subsurface stratum. Once the piers are installed, conventional foundations are then constructed over the modified ground. It is anticipated that allowable bearing capacities of 3,000 to 4,000 psf may be used in the design of foundations supported by rammed aggregate piers. It is our understanding that this process is relatively fast, may be less expensive than other types of deep foundation systems, and considering the subsurface conditions is judged to be a viable mitigative solution.

Protection of Adjacent Structures and Improvements

An issue of concern will be the proximity of public streets, existing structures, and other improvements to the excavation required to construct the project. Along the southern and eastern boundaries of the project, excavation depths on the order of 13 feet are anticipated. These depths would be necessary to accommodate the planned finish floor elevation of 190. Sloping the excavation walls in accordance with Cal-OSHA requirements does not appear to be feasible because the slopes would most likely encroach into neighboring properties and historic structures. Depending upon the planned earthwork/foundation program, excavations along Palm and Nipomo Streets may also approach depths greater than 5 feet. Consequently, it is anticipated that shoring will be necessary to support the walls of the excavation. Shoring methods could include, but are not limited to, shotcrete-faced soil nail walls, tangent drilled caissons, whaler-braced retaining walls, and steel I-beam and lagging walls.

Shotcrete-faced soil nail walls are a composite shoring system. Soil nails are inserted and grouted into holes drilled into the sides of the excavation at a slight downward incline. The facing of the excavation is covered with reinforcing steel and sprayed with shotcrete. These walls can provide a clean and safe working environment and can be designed to be part of the



permanent structure. Soil nail lengths depend upon soil types and field testing however, they typically have lengths roughly equivalent to the height of the wall. The soil nails would encroach into public rights of way and private property, requiring easements.

Another option for shoring could be steel I-beams with wood, steel, or precast concrete lagging. If the I-beams are cantilevered (i.e. not anchored or braced with interior bracing), their overall lengths will depend upon the exposed excavation height. A rule of thumb is that the embedment depth may approach twice the cantilevered height. Proposed excavations are on the order of 13 feet deep; therefore the total length of the beams could reach 40 feet. Utilizing tiebacks with steel walers or interior braced frames will typically reduce I-beam lengths substantially. While beams approaching 40 feet long may not be economically feasible, cantilevered shoring could be considered for shallower excavations.

Regardless of the type of shoring/support to be utilized, there will be a need to monitor local streets, structures, and improvements for damage during construction of the project as a result of the planned excavation.

Expansive Soils

The result of expansion index testing on a composite of two soil samples yielded a value of 87. This value indicates that soils anticipated at proposed excavation depths are moderate to highly expansive. Expansive soils tend to swell with seasonal increases in soil moisture and shrink during the dry season as soil moisture decreases. The volume changes that the soils undergo in this cyclical pattern can stress and damage slabs, retaining walls, and foundations if precautionary measures are not incorporated into the design and construction procedure. This will be particularly true for slabs and foundations that are near the surface where the shrink-swell cycle is most pronounced.

Use of imported nonexpansive materials combined with premoistening of the soil might be recommended to provide protection for slabs and flatwork. For this site, it is probable that a layer of nonexpansive material 18 to 24 inches thick would be recommended. Post-tensioned slabs-on-grade could also be utilized to mitigate the expansive soils on the site.

Lateral Earth Pressures

With respect to design of retaining walls, generally, the on-site expansive soil would not be recommended to be used as retaining wall backfill as it will be more difficult to compact and will have greater settlement potential than crushed gravel or sand/cement slurry. Sand/cement slurry or gravel backfill will also apply the least active pressure on the walls, and will provide adequate support for foundations that bear in the retaining wall backfill zone. Active equivalent fluid



pressures, not including any surcharges, on the order of 30 to 35 pcf are anticipated for slurry or gravel backfill. In limited areas, native soils might be suitable for use as wall backfill; active pressures, not including any surcharges, of about 50 to 65 pcf are anticipated. At-rest equivalent fluid pressures for rigid walls will be about 15 to 20 pcf higher than the active pressures for the applicable type of backfill.

Section 1803.5.12.1 of the 2010 CBC identifies the need for determining earthquake loads on buried structures and retaining walls. Such criteria are typically developed based upon the Mononobe-Okabe method (1926, 1929) as modified by Seed and Whitman (1970). This methodology has been the accepted geotechnical standard for development of seismic parameters for retaining wall design for over 35 years. In October, 2010, a professional paper was published in the Journal of Geotechnical and Environmental Engineering that has challenged this generally accepted view. The paper, entitled "Seismic Earth Pressures on Cantilever Retaining Structures" was authored by Linda Al Atik, Ph.D. and Nicholas Sitar, Ph.D. of the University of California at Berkeley. The paper was also presented, in association with several prominent structural and geotechnical engineers, at the Structural Engineering Association of California (SEAOC) 2010 Convention. In their research, the paper's authors were able to model gravitational forces through the use of centrifuge modeling at U.C. Davis, an element that was lacking in previous studies. Among other findings, they concluded that the effects of seismic soil loading on retaining walls are negligible for peak ground acceleration of less than about 0.4g. As the peak ground acceleration at the site was found to be 0.36g, we believe that the findings of Atik and Sitar apply to the project. The seismic loading of soil on retaining walls and buried structures may be disregarded as the design progresses.

Lateral resistance will be derived from passive pressure and friction of the retaining wall footings on the bearing material. Passive resistance of 300 to 350 pcf (equivalent fluid pressure) is anticipated. The friction coefficients will probably range from about 0.30 to 0.35.

Subsurface Water

Subsurface water was encountered in the borings at elevations of 166.0 to 177.5. At these elevations, subsurface water is not anticipated to be a significant issue. However, the 100-yr flood elevation is approximately 2 feet above planned finish floor (see Preliminary Geologic Conclusions). As a result, a subslab drain coupled with pressure relief pop-up valves in any recessed or below grade areas where hydrostatic pressure could develop in the lower level slab-on-grade should be considered. In addition, proper drainage of retaining walls and thorough waterproofing of walls facing habitable areas, or other areas where transmission of moisture would be undesirable, will be essential.



Recommendations

As the project design progresses, it will be essential that a geotechnical engineering investigation be undertaken and a comprehensive design-level report be prepared. Additional borings are recommended to address specific areas of the site once ultimate loads are determined. The report should address: a more in-depth analysis of total and differential settlement under the ultimate structure loads, retaining wall and buried structure design parameters, expansive soils, site specific seismicity, soil corrosivity, and any other items deemed relevant to the geotechnical engineer.

8.0 CLOSURE

Our intent was to perform the investigation in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing in the locality of this project under similar conditions at this time. No representation, warranty, or guarantee is either expressed or implied. This report is intended for the exclusive use by the client, as discussed in the "Scope of Services" section of this report. Application beyond the stated intent is strictly at the user's risk.

This report is valid for conditions as they exist at this time for the type of project described herein. The conclusions and recommendations contained in this report could be rendered invalid, either in whole or in part, due to changes in building codes, regulations, standards of geotechnical or construction practice, changes in physical conditions, or the broadening of knowledge.

If changes with respect to project type or location become necessary, if items not addressed in this report are incorporated into plans, or if any of the assumptions used in the preparation of this report are not correct, the soils engineer/geologist should be notified for modifications to this report. Any items not specifically addressed in this report should comply with a design-level geotechnical engineering report, the CBC, other applicable standards, and the requirements of the governing jurisdiction.

The preliminary recommendations of this soils report are based upon the geotechnical conditions encountered at the site, and may be augmented by additional requirements of the architect/engineer, or by additional recommendations provided by the soils engineer based on a design-level geotechnical engineering report, peer or jurisdiction reviews, or conditions exposed at the time of construction.



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Thank you for this opportunity to have been of service. If you have any questions, please feel free to contact this office at your convenience.

End of Text.



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APPENDIX A

Site Vicinity Map

Boring Location Map

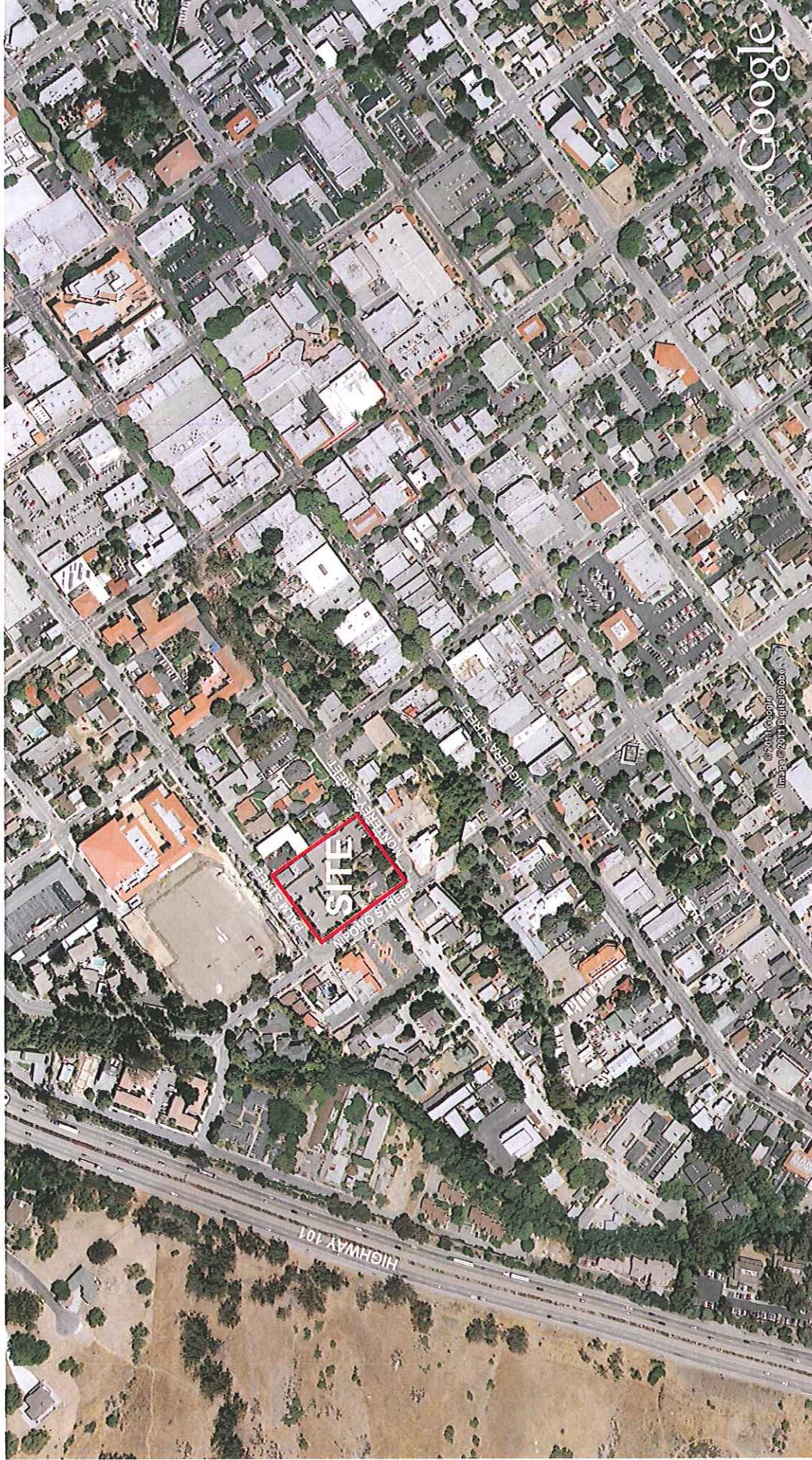
Log Key, Kleinfelder

Boring Logs 1 through 3, Kleinfelder

Boring Log Legend, Earth Systems Pacific

Boring Logs 4 through 8, Earth Systems Pacific

SITE VICINITY MAP
PALM AND NIPOMO PARKING STRUCTURE
Palm and Nipomo Streets
San Luis Obispo, California



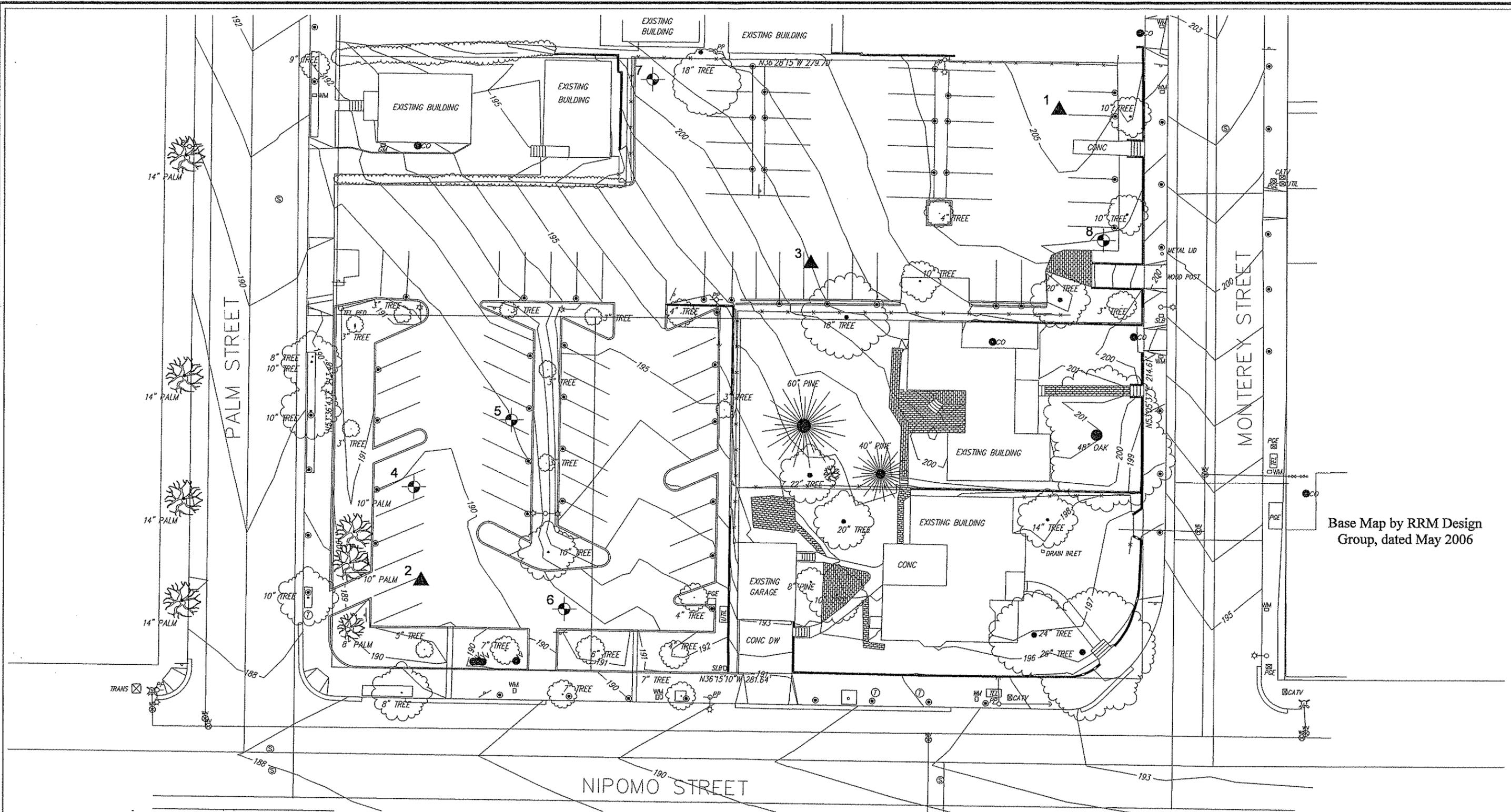
(Approximate scale: 1" = 400')



EARTH SYSTEMS PACIFIC

4378 Old Santa Fe Road, San Luis Obispo, CA 93401
February 2011

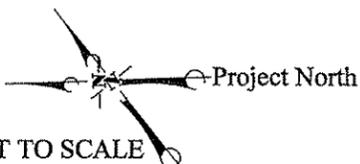
(805) 544-3276 - (805) 544-1786
www.earthsys.com - email: esc@earthsys.com
SL-16264-SA



Base Map by RRM Design Group, dated May 2006

LEGEND

- 3 ▲ Borings 1-3 Location (Approx.), drilled by Kleinfelder, Inc., 2/15/2005
- 5 ⊕ Borings 4-8 Location (Approx.), drilled by Earth Systems Pacific, 8/18/2010



NOT TO SCALE



Earth Systems Pacific

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 SL-16264-SA

September 1, 2010

SB

BORING LOCATION MAP

PALM AND NIPOMO PARKING STRUCTURE

Palm and Nipomo Streets
 San Luis Obispo, California

LOG SYMBOLS

	BULK / BAG SAMPLE	-4	PERCENT FINER THAN THE NO. 4 SIEVE (ASTM Test Method C 136)
	MODIFIED CALIFORNIA SAMPLER (2-1/2 inch outside diameter)	-200	PERCENT FINER THAN THE NO. 200 SIEVE (ASTM Test Method C 117)
	CALIFORNIA SAMPLER (3 inch outside diameter)		LL LIQUID LIMIT (ASTM Test Method D 4318)
	STANDARD PENETRATION SPLIT SPOON SAMPLER (2 inch outside diameter)		PI PLASTICITY INDEX (ASTM Test Method D 4318)
	NX SIZE CORE BARREL		EI EXPANSION INDEX (UBC Standard 18-2)
	CONTINUOUS SAMPLER (3 inch outside diameter)		COL COLLAPSE POTENTIAL
	WATER LEVEL (level after completion)		UC UNCONFINED COMPRESSION
	WATER LEVEL (level where first encountered)		MC MOISTURE CONTENT
	SEEPAGE		NFGWE NO FREE GROUND WATER ENCOUNTERED

GENERAL NOTES

1. Lines separating strata on the logs represent approximate boundaries only. Actual transitions may be gradual.
2. No warranty is provided as to the continuity of soil conditions between individual sample locations.
3. Logs represent general soil conditions observed at the point of exploration on the date indicated.
4. In general, Unified Soil Classification designations presented on the logs were evaluated by visual methods only. Therefore, actual designations (based on laboratory tests) may vary.
5. A temporary benchmark for relative elevation was located at:

KEYLOGG 54188.GPJ 6/26/05



KLEINFELDER

LOG KEY

PALM - NIPOMO SITE

SAN LUIS OBISPO, CALIFORNIA

PLATE

C

Drafted By:
Date:

Project No.: 54188-1
File Number:

Date Completed: 2/15/05
 Logged By: M. Guilbert
 Total Depth: 41.5 feet

Surface Conditions: SLIGHT SLOPE, PAVED PARKING AREA
 Rig Type: CME 55 Auger Type: 6" H.S.
 Groundwater: 30 feet

Depth, ft	FIELD		LABORATORY				Pen, tsf	DESCRIPTION
	Sample	Blows/ft	Dry Density pcf	Moisture Content %	Approx. Saturation %	Other Tests		
							Approximate Surface Elevation (ft):	
5		42					AC & BASE	
10		73	106.1	14.2			CLAY to SANDY CLAY (CL) - red brown, moist, medium stiff to very hard, no diesel, gas or other noticeable petroleum, no obvious discoloration or staining	
15		16	101.8	22.9			... red brown, becoming more clay stone	
20		58	116.1	12.6			... dark red brown	
25		78	114.7	13.8			... color change to dark brown	
30							... gravelly; gravel up to 1.5 in diameter	
							... gravel	
							CLAYEY GRAVEL (GC) - dark brown, moist, dense to very dense, gravel up to 1 inch diameter, rounded	
							... very slow drilling, more competent formation	



PROJECT NO. 54188-1

LOG OF BORING B-1
 PALM - NIPOMO SITE
 SAN LUIS OBISPO, CALIFORNIA

PLATE
 1 of 2

C1

Depth, ft	FIELD		LABORATORY				Pen, tsf	DESCRIPTION
	Sample	Blows/ft	Dry Density pcf	Moisture Content %	Approx. Saturation %	Other Tests		
	41		120.0	11.2				(Continued from previous plate)
35	94+		116.7	20.7				... wet, coarse grained sand to 2 mm ... easier drilling ... brown
40	100+							BLACK SHALE - highly foliated, weak to moderately strong
45								Notes: 1.) Bottom of boring at 41.5 feet. 2.) Groundwater encountered at 30 feet. 3.) Boring backfilled with soil cuttings to 20 feet below ground surface, bentonite grout to surface 02/15/2005.
50								
55								
60								



KLEINFELDER

LOG OF BORING B- 1
PALM - NIPOMO SITE

SAN LUIS OBISPO, CALIFORNIA

PLATE
2 of 2

C1

PROJECT NO. 54188-1

Date Completed: 2/15/05
 Logged By: M. Guilbert
 Total Depth: 36.5 feet

Surface Conditions: SLIGHT SLOPE, PAVED PARKING AREA
 Rig Type: CME 55 Auger Type: 6" H.S.
 Groundwater: No free groundwater encountered.

Depth, ft	FIELD		LABORATORY				pen, tsf	DESCRIPTION
	Sample	Blows/ft	Dry Density pcf	Moisture Content %	Approx. Saturation %	Other		
								Approximate Surface Elevation (ft):
								AC & BASE
5		7						CLAYEY SAND(SC) - red brown, moist, medium dense, sand to 0.5 mm, no petroleum or chemical odor perceived, no discoloration or staining evident
10		18						CLAYEY GRAVEL(GC) - brown, moist, medium dense, gravel to 1"
15		17						SANDY CLAY (CL) - brown, moist, stiff, trace coarse sand to 1/4"
20		21						CLAYEY GRAVEL(GC) - brown, moist, medium dense, gravel coarse to 1" CLAY (CL) - olive gray, moist, stiff
25		83+						SHALE - light brown to gray, foliated (fracture not applicable) rocks, weak ... very slow drilling, competent formation ... easier drilling, shale chips
30								



PROJECT NO. 54188-1

LOG OF BORING B-2
 PALM - NIPOMO SITE
 SAN LUIS OBISPO, CALIFORNIA

PLATE 1 of 2

C2

Depth, ft	FIELD		LABORATORY					Pen, tsf	DESCRIPTION
	Sample	Blows/ft	Dry Density pcf	Moisture Content %	Approx. Saturation %	Other	Tests		
35		100+						... black, highly foliated (fracture not applicable), weathered, weak to moderately strong Notes: 1.) Bottom of boring at 36.5 feet. 2.) No free groundwater encountered. 3.) Boring backfilled with soil cuttings to 20 feet below ground surface, bentonite grout to surface 02/15/2005.	
40		100+							
45									
50									
55									
60									



KLEINFELDER

PROJECT NO. 54188-1

LOG OF BORING B- 2
PALM - NIPOMO SITE

SAN LUIS OBISPO, CALIFORNIA

PLATE
2 of 2

C2

Date Completed: 2/15/05
 Logged By: M. Guilbert
 Total Depth: 21.5 feet

Surface Conditions: SLIGHT SLOPE, PAVED PARKING AREA
 Rig Type: CME 55 Auger Type: 6" H.S.
 Groundwater: No free groundwater encountered.

Depth, ft	FIELD		LABORATORY					Pen, tsf	DESCRIPTION
	Sample	Blows/ft	Dry Density pcf	Moisture Content %	Approx. Saturation %	Other	Tests		
5		26						AC & BASE	
10		25						SANDY CLAY (CL) - red brown, moist, stiff, trace gravel to 1/2", no perceptible petroleum or chemical odor, no discoloration or staining evident	
15		27						CLAYEY GRAVEL(GC) - brown, moist, medium dense, gravel to 1"	
20		41						SANDY CLAY (CL) - light brown to gray, moist, stiff to hard	
25								... brown, gravel to 3/4"	
30								Notes: 1.) Bottom of boring at 21.5 feet. 2.) No free groundwater encountered. 3.) Boring backfilled with soil cuttings to 20 feet, bentonite grout to surface 02/15/2005.	



KLEINFELDER

LOG OF BORING B- 3
 PALM - NIPOMO SITE

PLATE
 1 of 1

PROJECT NO. 54188-1

SAN LUIS OBISPO, CALIFORNIA

C3



Earth Systems Pacific

BORING LOG LEGEND

SOIL CLASSIFICATION SYSTEM

SAMPLE / SUBSURFACE WATER SYMBOLS		GRAPH. SYMBOL	MAJOR DIVISIONS	GROUP SYMBOL	TYPICAL DESCRIPTIONS	GRAPH. SYMBOL
CALIFORNIA MODIFIED		■	COARSE GRAINED SOILS MORE THAN HALF OF MATERIAL IS TESTED OR JUDGED TO BE LARGER THAN #200 SIEVE SIZE	GW	WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES	
STANDARD PENETRATION TEST (SPT)		●		GP	POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES	
SHELBY TUBE		□		GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES, NON-PLASTIC FINES	
BULK		○		GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES, PLASTIC FINES	
SUBSURFACE WATER DURING DRILLING		▽		SW	WELL GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES	
SUBSURFACE WATER AFTER DRILLING		▽		SP	POORLY GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES	
				SM	SILTY SANDS, SAND-SILT MIXTURES, NON-PLASTIC FINES	
				SC	CLAYEY SANDS, SAND-CLAY MIXTURES, PLASTIC FINES	
			FINE GRAINED SOILS HALF OR MORE OF MATERIAL IS TESTED OR JUDGED TO BE SMALLER THAN #200 SIEVE SIZE	ML	INORGANIC SILTS AND VERY FINE SANDS, SILTY, CLAYEY FINE SANDS, CLAYEY SILTS WITH SLIGHT PLASTICITY	
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS	
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	
				MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY, SILTY SOILS, ELASTIC SILTS	
				CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS	
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS	
				PT	PEAT AND OTHER HIGHLY ORGANIC SOILS	

OBSERVED MOISTURE CONDITION

DRY	SLIGHTLY MOIST	MOIST	VERY MOIST	WET
LITTLE/NO MOISTURE	JUDGED BELOW OPTIMUM	JUDGED ABOUT OPTIMUM	JUDGED OVER OPTIMUM	SATURATED

TYPICAL CONSISTENCY

COARSE GRAINED SOILS			FINE GRAINED SOILS		
BLOWS/FOOT		DESCRIPTIVE TERM	BLOWS/FOOT		DESCRIPTIVE TERM
SPT	CA SAMPLER		SPT	CA SAMPLER	
0-10	0-16	LOOSE	0-2	0-3	VERY SOFT
11-30	17-50	MEDIUM DENSE	3-4	4-7	SOFT
31-50	51-83	DENSE	5-8	8-13	MEDIUM STIFF
OVER 50	OVER 83	VERY DENSE	9-15	14-25	STIFF
			16-30	26-50	VERY STIFF
			OVER 30	OVER 50	HARD

GRAIN SIZES

U.S. STANDARD SERIES SIEVE				CLEAR SQUARE SIEVE OPENING			
# 200	# 40	# 10	# 4	3/4"	3"	12"	
SILT & CLAY	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		

TYPICAL ROCK HARDNESS

MAJOR DIVISIONS	TYPICAL DESCRIPTIONS
EXTREMELY HARD	CORE, FRAGMENT, OR EXPOSURE CANNOT BE SCRATCHED WITH KNIFE OR SHARP PICK; CAN ONLY BE CHIPPED WITH REPEATED HEAVY HAMMER BLOWS
VERY HARD	CANNOT BE SCRATCHED WITH KNIFE OR SHARP PICK; CORE OR FRAGMENT BREAKS WITH REPEATED HEAVY HAMMER BLOWS
HARD	CAN BE SCRATCHED WITH KNIFE OR SHARP PICK WITH DIFFICULTY (HEAVY PRESSURE); HEAVY HAMMER BLOW REQUIRED TO BREAK SPECIMEN
MODERATELY HARD	CAN BE GROOVED 1/16 INCH DEEP BY KNIFE OR SHARP PICK WITH MODERATE OR HEAVY PRESSURE; CORE OR FRAGMENT BREAKS WITH LIGHT HAMMER BLOW OR HEAVY MANUAL PRESSURE
SOFT	CAN BE GROOVED OR GOUGED EASILY BY KNIFE OR SHARP PICK WITH LIGHT PRESSURE, CAN BE SCRATCHED WITH FINGERNAIL; BREAKS WITH LIGHT TO MODERATE MANUAL PRESSURE
VERY SOFT	CAN BE READILY INDENTED, GROOVED OR GOUGED WITH FINGERNAIL, OR CARVED WITH KNIFE; BREAKS WITH LIGHT MANUAL PRESSURE

TYPICAL ROCK WEATHERING

MAJOR DIVISIONS	TYPICAL DESCRIPTIONS
FRESH	NO DISCOLORATION, NOT OXIDIZED
SLIGHTLY WEATHERED	DISCOLORATION OR OXIDATION IS LIMITED TO SURFACE OF, OR SHORT DISTANCE FROM; SOME FRACTURES PRESENT; FELDSPAR CRYSTALS ARE DULL
MODERATELY WEATHERED	DISCOLORATION OR OXIDATION EXTENDS FROM FRACTURES, USUALLY THROUGHOUT; Fe-Mg MINERALS ARE "RUSTY"; FELDSPAR CRYSTALS ARE "CLOUDY"
INTENSELY WEATHERED	DISCOLORATION OR OXIDATION THROUGHOUT; FELDSPAR AND Fe-Mg MINERALS ARE ALTERED TO CLAY TO SOME EXTENT OR CHEMICAL ALTERATION PRODUCES IN SITU DISAGGREGATION
DECOMPOSED	DISCOLORATION OR OXIDATION THROUGHOUT, BUT RESISTANT MINERALS SUCH AS QUARTZ MAY BE UNALTERED; FELDSPAR AND Fe-Mg MINERALS ARE COMPLETELY ALTERED TO CLAY

drafting/masters/Bottom Log Legend 08 1608.dwg



Earth Systems Pacific

Boring No. 4

PAGE 1 OF 2

LOGGED BY: T. Conroy

DRILL RIG: Mobile Drill, Model B-53 w/ Autohammer

JOB NO.: SL-16264-SA

AUGER TYPE: 8" Hollow Stem

Approximate Surface Elevation: +/- 190.0 ft

DATE: 08/18/10

DEPTH (feet)	USCS CLASS	SYMBOL	PALM AND NIPOMO PARKING STRUCTURE Palm and Nipomo Streets San Luis Obispo, California					
			SOIL DESCRIPTION	INTERVAL (feet)	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.
0			5.5" asphalt concrete over 4.0" aggregate base					
1	CL		SANDY LEAN CLAY: brown, medium stiff, moist, trace fine gravel, ceramic and brick fragments to 0.5" diameter (fill)	2.0-3.5	ⓔ			7 5 4
2				3.5-5.0	ⓔ			5 5 5
3				5.0-6.5	■	105.5	13.0	5 11 14
4	CL		SANDY LEAN CLAY: gray/brown mottled, stiff, moist, trace fine gravel (alluvium)	8.5-10.0	ⓔ			5 10 11
5				10.0-11.5	■	94.5	22.9	8 14 19
6				14.0-15.5	■	103.1	23.7	12 18 18
7				20.0-21.5	●			8 13 17
8				25.0-26.5	●			12 16 50/5.0"
9			METAVOLCANIC ROCK: dark olive green to dark gray, soft, wet, intensely weathered, fractured (Franciscan Melange)					

LEGEND: ■ Ring Sample ○ Grab Sample □ Shelby Tube Sample ● SPT ⓔ Environmental Sample

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.



LOGGED BY: T. Conroy
 DRILL RIG: Mobile Drill, Model B-53 w/ Autohammer
 AUGER TYPE: 8" Hollow Stem

PAGE 2 OF 2
 JOB NO.: SL-16264-SA
 DATE: 08/18/10
 Approximate Surface Elevation: +/- 190.0 ft

DEPTH (feet)	USCS CLASS	SYMBOL	PALM AND NIPOMO PARKING STRUCTURE Palm and Nipomo Streets San Luis Obispo, California	SAMPLE DATA				
				SOIL DESCRIPTION	INTERVAL (feet)	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)
27			METAVOLCANIC ROCK: as above					
28								
29								
30					30.0-31.5	●		
31								34
32								50/5.0"
33			moderately hard, moderately weathered					
34								
35					35.0-36.5	●		
36			End of Boring @ 35.5' Subsurface water encountered @ 24.0'					
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								

LEGEND: Ring Sample Grab Sample Shelby Tube Sample SPT

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.



Earth Systems Pacific

Boring No. 5

PAGE 1 OF 1

LOGGED BY: T. Conroy

DRILL RIG: Mobile Drill, Model B-53 w/ Autohammer

JOB NO.: SL-16264-SA

AUGER TYPE: 8" Hollow Stem

Approximate Surface Elevation: +/- 191.0 ft

DATE: 08/18/10

DEPTH (feet)	USCS CLASS	SYMBOL	PALM AND NIPOMO PARKING STRUCTURE Palm and Nipomo Streets San Luis Obispo, California	SAMPLE DATA				
				SOIL DESCRIPTION	INTERVAL (feet)	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)
0			4.5" asphalt concrete over 4.0" aggregate base					
1	CL		SANDY LEAN CLAY: brown, medium stiff, moist (alluvium)	2.0-3.5	(E)			6 10 11
2								
3								
4								
5				5.0-6.5	(E)			10 17 19
6	SC		CLAYEY SAND WITH GRAVEL: brown to light brown, medium dense, moist					
7								
8								
9	CL		SANDY LEAN CLAY: brown, very stiff, moist	10.0-11.5	(E)			10 18 19
10								
11								
12			End of Boring @ 11.5' No subsurface water encountered.					
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								

LEGEND: ■ Ring Sample ○ Grab Sample □ Shelby Tube Sample ● SPT (E) Environmental Sample

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.



LOGGED BY: T. Conroy

DRILL RIG: Mobile Drill, Model B-53 w/ Autohammer

JOB NO.: SL-16264-SA

AUGER TYPE: 8" Hollow Stem

Approximate Surface Elevation: +/- 190.5 ft

DATE: 08/18/10

DEPTH (feet)	USCS CLASS	SYMBOL	PALM AND NIPOMO PARKING STRUCTURE Palm and Nipomo Streets San Luis Obispo, California	SAMPLE DATA				
				INTERVAL (feet)	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.
SOIL DESCRIPTION								
0			7.5" asphalt concrete over 4.0" aggregate base					
1	CL		SANDY LEAN CLAY WITH GRAVEL: brown, medium stiff, moist (alluvium)	2.0-3.5	Ⓔ			3
2								8
3								7
4								
5				5.0-6.5	Ⓔ			5
6								9
7	SC		CLAYEY SAND: brown to light brown, medium dense, moist, trace fine gravel					19
8								
9	CL		SANDY LEAN CLAY: brown, stiff, moist	10.0-11.5	Ⓔ			9
10								
11								12
12			End of Boring @ 11.5' No subsurface water encountered.					
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								

LEGEND: ■ Ring Sample ○ Grab Sample □ Shelby Tube Sample ● SPT Ⓔ Environmental Sample

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.



Earth Systems Pacific

Boring No. 7

PAGE 1 OF 2

LOGGED BY: T. Conroy

DRILL RIG: Mobile Drill, Model B-53 w/ Autohammer

JOB NO.: SL-16264-SA

AUGER TYPE: 8" Hollow Stem

Approximate Surface Elevation: +/- 200.5 ft

DATE: 08/18/10

DEPTH (feet)	USCS CLASS	SYMBOL	SAMPLE DATA				
			INTERVAL (feet)	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.
PALM AND NIPOMO PARKING STRUCTURE Palm and Nipomo Streets San Luis Obispo, California							
SOIL DESCRIPTION							
0			3.5" asphalt concrete over 4.0" aggregate base				
1	CL		LEAN CLAY: light brown, medium stiff, moist, trace sand (alluvium)				
2							
3							
4							
5							
5.0-6.5			5.0-6.5	●			8 13 20
6	CL		SANDY LEAN CLAY: light brown, hard, moist, trace fine gravel				
7							
8							
9							
10							
10.0-11.5			10.0-11.5	●			10 12 16
11							
12			very stiff				
13							
14							
15.0-16.0			15.0-16.0	■	114.4	17.2	15 50
16			hard				
17							
17			increasing sand content				
18							
19							
20.0-21.5			20.0-21.5	●			8 12 12
21							
22							
23	SC		CLAYEY SAND WITH GRAVEL: brown, dense, wet, coarse gravel				
24							
25.0-26.0			25.0-26.0	■	No Return		18 50
26							

LEGEND: ■ Ring Sample ○ Grab Sample □ Shelby Tube Sample ● SPT (E) Environmental Sample

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.



Earth Systems Pacific

Boring No. 7

PAGE 2 OF 2

LOGGED BY: T. Conroy

DRILL RIG: Mobile Drill, Model B-53 w/ Autohammer

JOB NO.: SL-16264-SA

AUGER TYPE: 8" Hollow Stem

Approximate Surface Elevation: +/- 200.5 ft

DATE: 08/18/10

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	SAMPLE DATA				
				INTERVAL (feet)	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.
27	SC		CLAYEY SAND WITH GRAVEL: as above	30.0-31.5	●			20 12 14
28			cobbles to 5" diameter					
29	CL		SANDY LEAN CLAY WITH GRAVEL: gray/dark red mottled, stiff, wet	34.0-35.5	●			12 50
30			CLAYSTONE: gray, very soft, moist, moderately to highly weathered, closely fractured (Franciscan Melange)					
31			End of Boring @ 35.0'					
32			Subsurface water encountered @ 23.0'					
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								

LEGEND: Ring Sample Grab Sample Shelby Tube Sample SPT

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.



LOGGED BY: T. Conroy

PAGE 1 OF 2

DRILL RIG: Mobile Drill, Model B-53 w/ Autohammer

JOB NO.: SL-16264-SA

AUGER TYPE: 8" Hollow Stem

Approximate Surface Elevation: +/- 204.0 ft

DATE: 08/18/10

DEPTH (feet)	USCS CLASS	SYMBOL	SAMPLE DATA				
			INTERVAL (feet)	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.
PALM AND NIPOMO PARKING STRUCTURE Palm and Nipomo Streets San Luis Obispo, California							
SOIL DESCRIPTION							
0			3.5" asphalt concrete over 4.0" aggregate base				
1	SM		SILTY SAND WITH GRAVEL: brown, medium dense, moist (fill)				
2							
3	CL		SANDY LEAN CLAY: red brown, very stiff, moist, trace fine gravel (alluvium)				
4							
5			5.0-6.5	●			15 34 34
6			hard				
7							
8	CL		SANDY LEAN CLAY WITH GRAVEL: brown, very stiff, moist, coarse gravel				
9							
10			10.0-11.5	●			7 9 11
11							
12							
13	CL		SANDY LEAN CLAY: red brown, stiff, moist				
14							
15			15.0-16.5	●			4 6 7
16							
17							
18							
19							
20			20.0-21.5	■	116.5	16.3	4 18 33
21			hard				
22							
23							
24							
25			25.0-26.5	●			4 6 6
26			very moist, stiff				

LEGEND: ■ Ring Sample ○ Grab Sample □ Shelby Tube Sample ● SPT (E) Environmental Sample

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.



LOGGED BY: T. Conroy
 DRILL RIG: Mobile Drill, Model B-53 w/ Autohammer
 AUGER TYPE: 8" Hollow Stem

PAGE 2 OF 2
 JOB NO.: SL-16264-SA
 DATE: 08/18/10

Approximate Surface Elevation: +/- 204.0 ft

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	SAMPLE DATA				
				INTERVAL (feet)	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.
27	CL		SANDY LEAN CLAY: as above					
28								
29								
30			light brown, interbedded gravels	30.0-31.5	●			3 6 8
31								
32	SC		CLAYEY SAND WITH GRAVEL: light brown, loose, very moist, fine gravel					
33								
34			wet					
35				34.0-35.5	●			2 4 4
36								
37	GC		CLAYEY GRAVEL WITH SAND: gray, medium dense, wet					
38								
39								
40				40.0-41.5	●			5 8 12
41								
42								
43								
44								
45			METAVOLCANIC ROCK: light olive brown, very soft, very moist, intensely weathered, closely fractured (Franciscan Melange)	45.0-46.5	●			6 24 38
46			dark gray, soft, moderately weathered					
47			End of Boring @ 46.5'					
48			Subsurface water encountered @ 34.0'					
49								
50								
51								
52								
53								

LEGEND: Ring Sample Grab Sample Shelby Tube Sample SPT

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

APPENDIX B

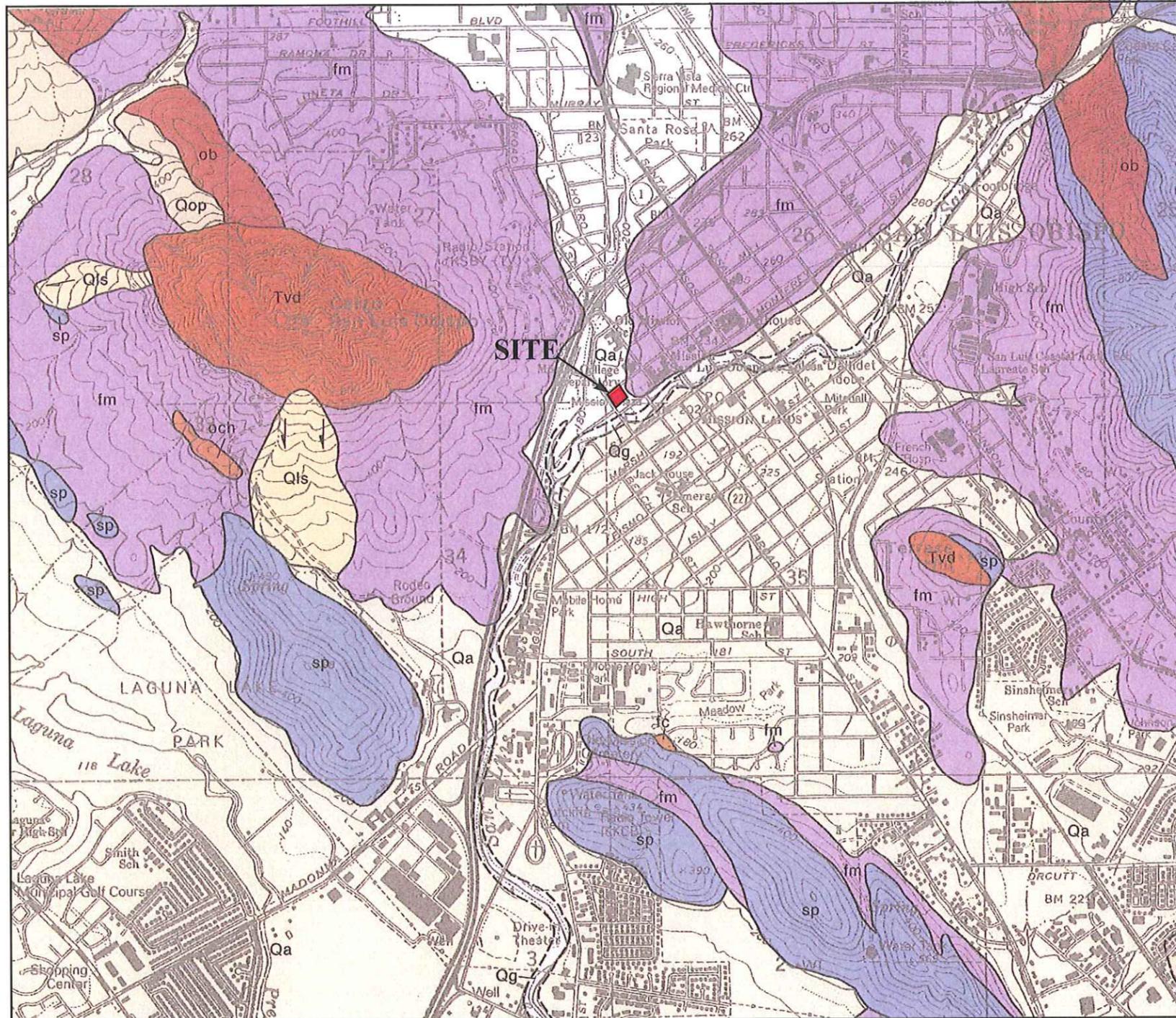
Geologic Map
FIRM Flood Zone Map

GEOLOGIC MAP

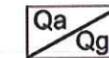
PALM AND NIPOMO PARKING STRUCTURE

Palm and Nipomo Streets
San Luis Obispo, California

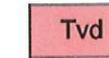
EXPLANATION



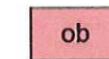
Geologic Units



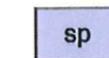
Surficial Sediments
-alluvial sand and gravel
of valley areas



Volcanic Intrusive Rocks
-dacite of quartz latite porphyry



Coast Range Ophiolite Complex
-basalt-diabase, black, fine-grained



Serpentine
blue-green slicked, gray, slickensided



Franciscan Assemblage
fs-mostly greywacke sandstone,
gray, fine-grained, hard, but fractured

Geologic Symbols

Contact
Dashed where approximately located or inferred

High-angle fault
Dashed where approximately located or inferred; dotted where concealed

Thrust or reverse fault
Dashed where approximately located or inferred; dotted where concealed.
Saw-teeth on upper plate. Dip of fault plane between 30° and 80°

Anticline
Showing axis at surface. Dashed where approximately located; dotted where concealed

Syncline
Showing axis at surface. Dashed where approximately located; dotted where concealed

⊕ 30° 90°
Horizontal Inclined Vertical
Strike and dip of beds

↗ (Project North) ↑ (True North)

Approx. Scale: 1" = 2000'

Extract from: Geologic Map of the San Luis Obispo Quadrangle, San Luis Obispo County, California, by T.W. Dibblee, Jr., 2004



Earth Systems Pacific

4378 Old Santa Fe Road, San Luis Obispo, CA 93401
February 2011

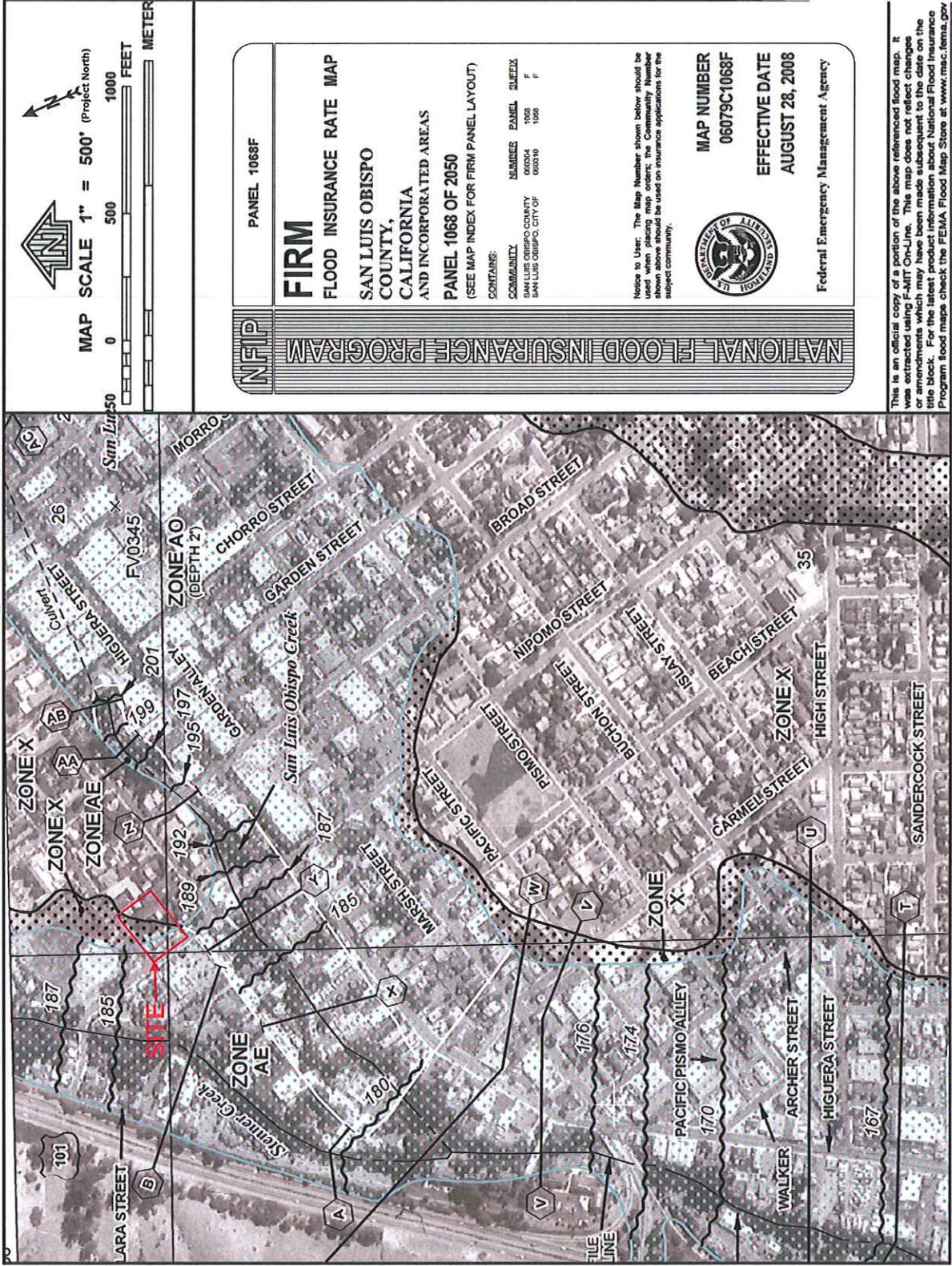
(805) 544-3276 - (805) 544-1786 Fax

www.earthsys.com - e-mail: esc@earthsystems.com
SL-16264-SA

FIRM FLOOD ZONE MAP

PALM AND NIPOMO PARKING STRUCTURE

Palm and Nipomo Streets San Luis Obispo, California



NFIP

PANEL 1068F

FIRM

FLOOD INSURANCE RATE MAP

SAN LUIS OBISPO COUNTY, CALIFORNIA AND INCORPORATED AREAS

PANEL 1068 OF 2050
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
SAN LUIS OBISPO COUNTY	00004	1068	F
SAN LUIS OBISPO, CITY OF	00010	1068	F

Notice to User: The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
06079C1068F

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

U.S. DEPARTMENT OF HOMELAND SECURITY

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.nesc.fema.gov



EARTH SYSTEMS PACIFIC

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February 2011

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SL-16264-SA

APPENDIX C

Geotechnical Laboratory Test Results, Earth Systems Pacific

Geotechnical Laboratory Test Results, Kleinfelder



Palm and Nipomo Parking Structure

SL-16264-SA

BULK DENSITY TEST RESULTS

ASTM D 2937-04 (modified for ring liners)

August 29, 2010

<u>BORING NO.</u>	<u>DEPTH feet</u>	<u>MOISTURE CONTENT, %</u>	<u>WET DENSITY, pcf</u>	<u>DRY DENSITY, pcf</u>
4	5.5 - 6.0	13.0	119.2	105.5
4	10.5 - 11.0	22.9	116.1	94.5
4	15.0 - 15.5	23.7	127.5	103.1
7	15.5 - 16.0	17.2	134.1	114.4
8	21.0 - 21.5	16.3	135.5	116.5

EXPANSION INDEX TEST RESULTS

ASTM D 4829-08a

<u>SAMPLE</u>	<u>EXPANSION INDEX</u>
Composite sample of: 7 @ 10.0-10.5' 8 @ 16.0-16.5'	87



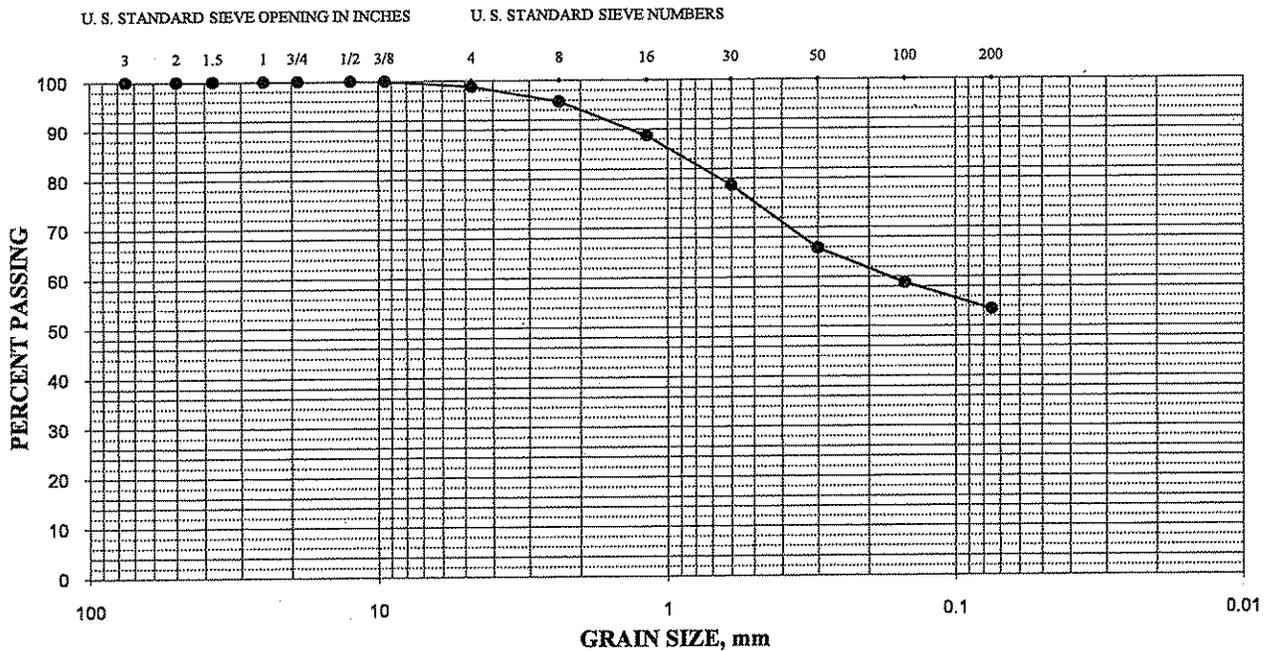
PARTICLE SIZE ANALYSIS

ASTM D 422-63/07; D 1140-06

Boring #4 @ 15.0 - 15.5'
Sandy Lean Clay (CL)

August 29, 2010

Sieve size	% Retained	% Passing
3" (75-mm)	0	100
2" (50-mm)	0	100
1.5" (37.5-mm)	0	100
1" (25-mm)	0	100
3/4" (19-mm)	0	100
1/2" (12.5-mm)	0	100
3/8" (9.5-mm)	0	100
#4 (4.75-mm)	1	99
#8 (2.36-mm)	4	96
#16 (1.18-mm)	11	89
#30 (600- μ m)	21	79
#50 (300- μ m)	34	66
#100 (150- μ m)	41	59
#200 (75- μ m)	47	53





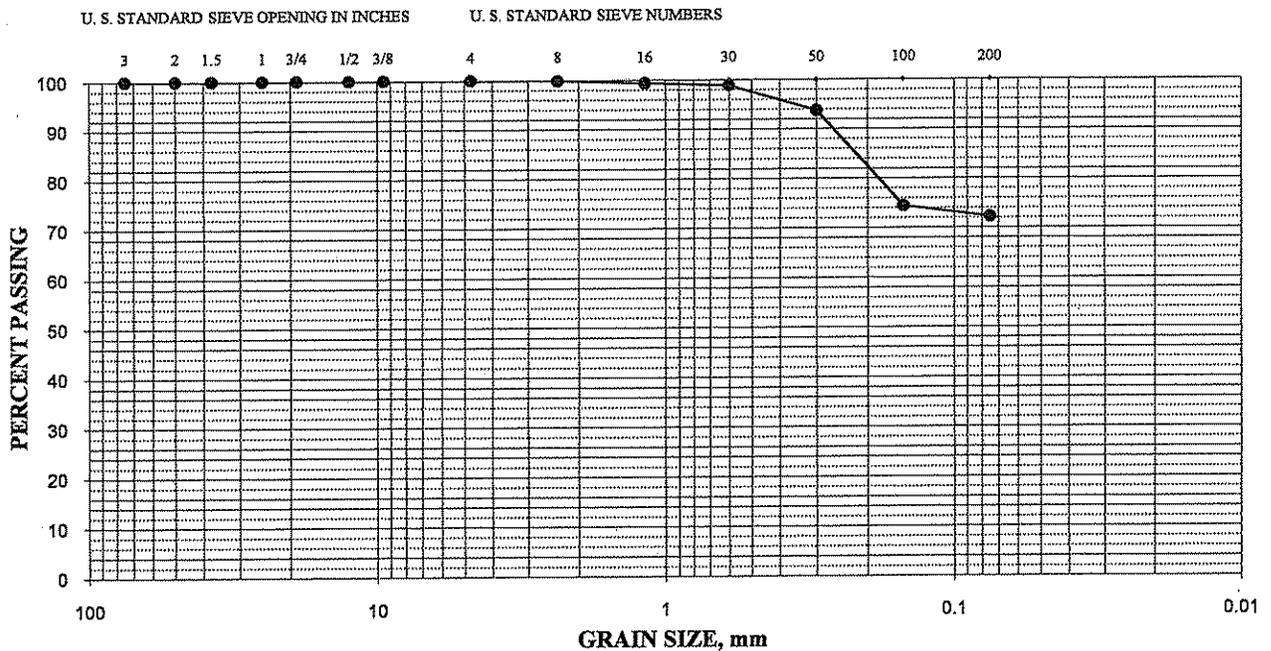
PARTICLE SIZE ANALYSIS

ASTM D 422-63/07; D 1140-06

Boring #7 @ 20.0 - 21.5'
Sandy Lean Clay (CL)

August 29, 2010

Sieve size	% Retained	% Passing
3" (75-mm)	0	100
2" (50-mm)	0	100
1.5" (37.5-mm)	0	100
1" (25-mm)	0	100
3/4" (19-mm)	0	100
1/2" (12.5-mm)	0	100
3/8" (9.5-mm)	0	100
#4 (4.75-mm)	0	100
#8 (2.36-mm)	0	100
#16 (1.18-mm)	1	99
#30 (600- μ m)	1	99
#50 (300- μ m)	6	94
#100 (150- μ m)	26	74
#200 (75- μ m)	28	72





Palm and Nipomo Parking Structure

SL-16264-SA

PARTICLE SIZE ANALYSIS

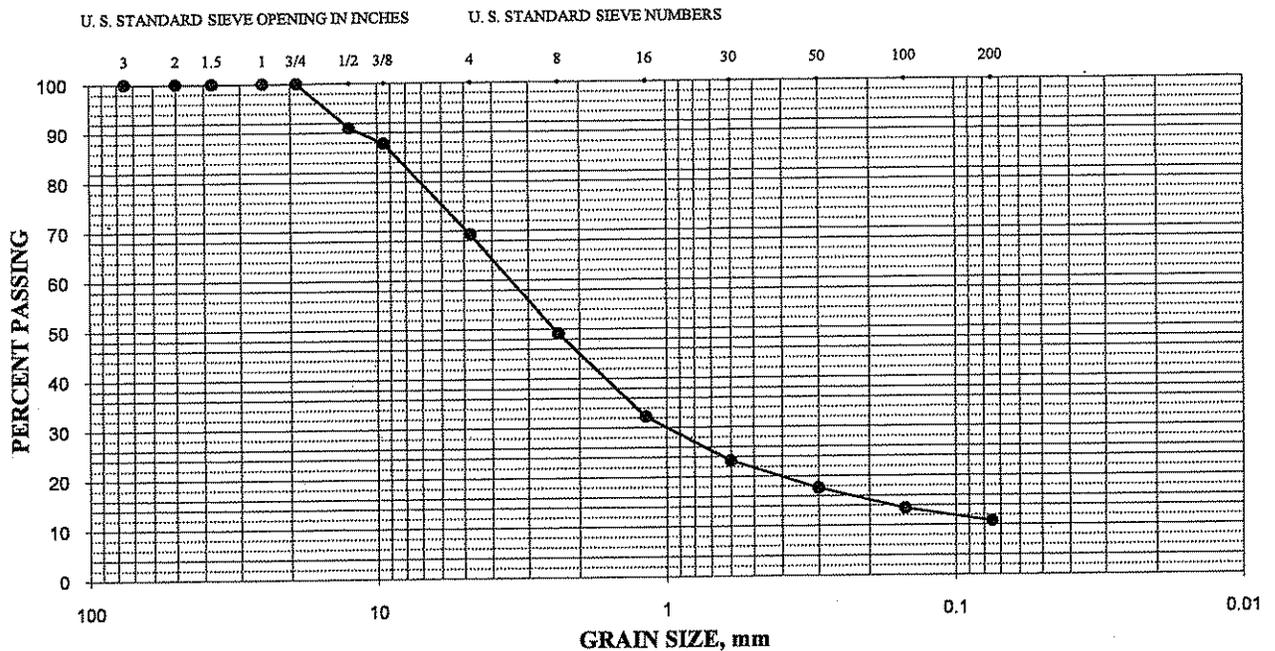
ASTM D 422-63/07; D 1140-06

Boring #8 @ 35.0 - 35.5'

August 29, 2010

Clayey Sand with Gravel (SC)

Sieve size	% Retained	% Passing
3" (75-mm)	0	100
2" (50-mm)	0	100
1.5" (37.5-mm)	0	100
1" (25-mm)	0	100
3/4" (19-mm)	0	100
1/2" (12.5-mm)	9	91
3/8" (9.5-mm)	12	88
#4 (4.75-mm)	31	69
#8 (2.36-mm)	51	49
#16 (1.18-mm)	68	32
#30 (600- μ m)	77	23
#50 (300- μ m)	82	18
#100 (150- μ m)	87	13
#200 (75- μ m)	89	11





DIRECT SHEAR

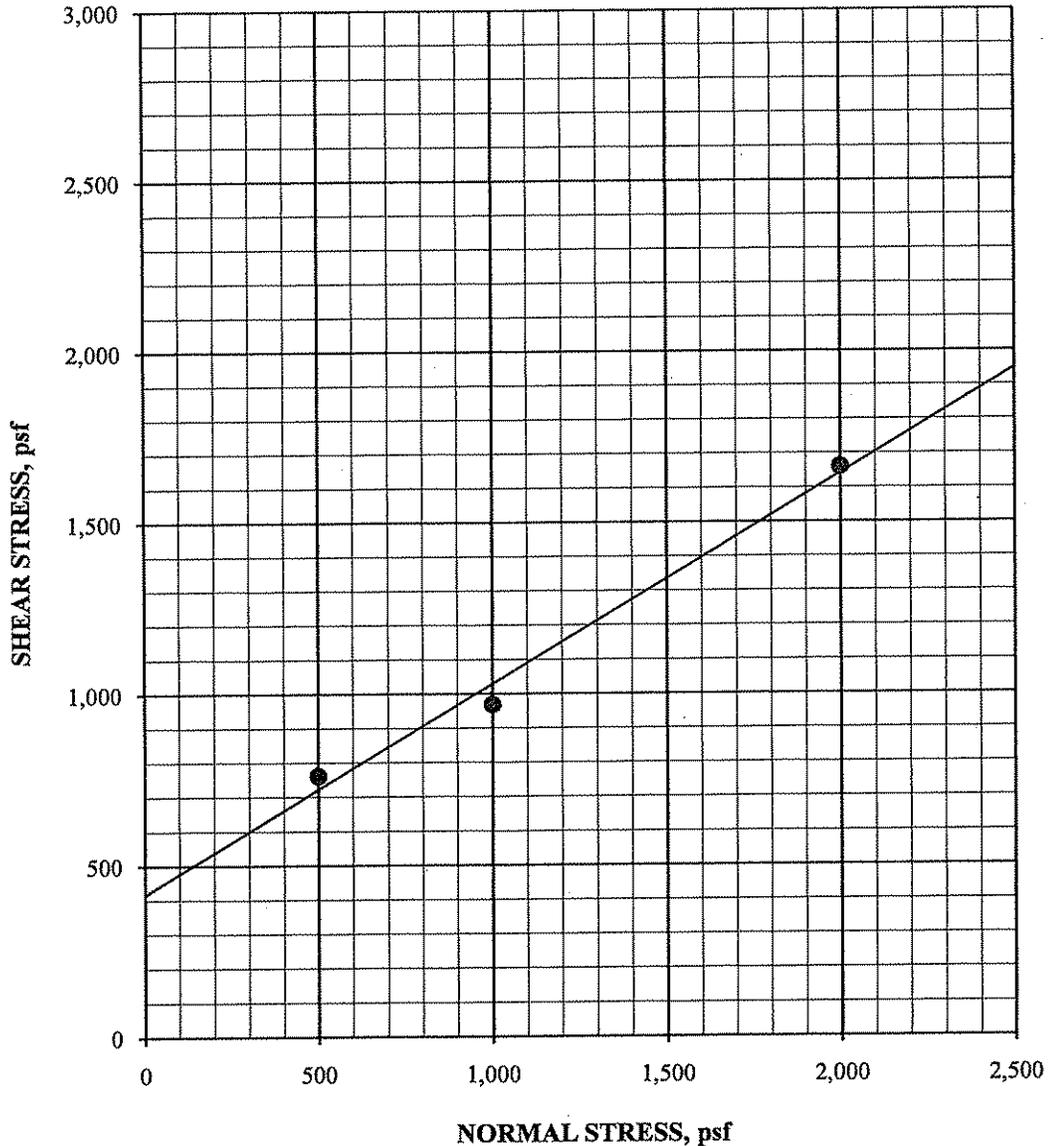
ASTM D 3080-04 (modified for consolidated, undrained conditions)

August 29, 2010

Boring #4 @ 6.0 - 6.5'
Sandy Lean Clay (CL)
Ring sample, saturated

INITIAL DRY DENSITY: 101.5 pcf
INITIAL MOISTURE CONTENT: 13.0 %
PEAK SHEAR ANGLE (ϕ): 32°
COHESION (C): 415 psf

SHEAR vs. NORMAL STRESS





DIRECT SHEAR continued

ASTM D 3080-04 (modified for consolidated, undrained conditions)

Boring #4 @ 6.0 - 6.5'

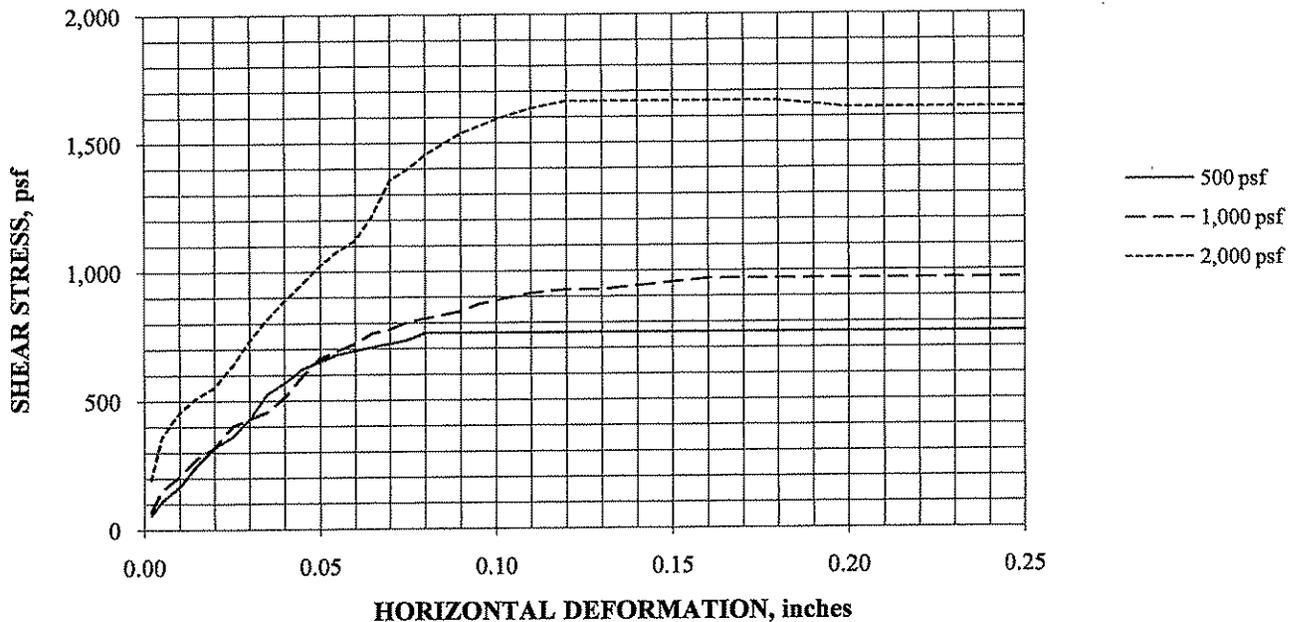
August 29, 2010

Sandy Lean Clay (CL)

Ring sample, saturated

SPECIFIC GRAVITY: 2.70 (assumed)

SAMPLE NO.:	1	2	3	AVERAGE
INITIAL				
WATER CONTENT, %	13.0	13.0	13.0	13.0
DRY DENSITY, pcf	102.0	103.9	98.7	101.5
SATURATION, %	53.8	56.4	49.6	53.3
VOID RATIO	0.652	0.622	0.707	0.660
DIAMETER, inches	2.375	2.375	2.375	
HEIGHT, inches	1.00	1.00	1.00	
AT TEST				
WATER CONTENT, %	25.3	22.1	22.0	
DRY DENSITY, pcf	103.9	106.8	106.0	
SATURATION, %	100.0	100.0	100.0	
VOID RATIO	0.621	0.578	0.589	
HEIGHT, inches	0.98	0.97	0.93	





Palm and Nipomo Parking Structure

SL-16264-SA

UNCONFINED COMPRESSION ON COHESIVE SOIL

ASTM D 2166-06

August 29, 2010

Boring #7 @ 15.5 - 16'

Sandy Lean Clay (CL)

Ring Sample

COMPRESSIVE STRENGTH: 102 psi (14,636 psf)

Dry Density: 114.4 pcf

Moisture Content: 17.2%

Degree Saturation: 98.3%

Specific Gravity: 2.70 (assumed)

H/D Ratio: 2.13

TIME (MINUTES)	DEFORM, in (X 1000)	AXIAL STRAIN	AREA (SQ. IN.)	APPLIED LOAD (LBS)	STRENGTH (PSI)	STRENGTH (PSF)
0.5	21	0.0042	4.45	76	17	2,460
1.0	43	0.0085	4.47	145	32	4,673
1.5	64	0.0127	4.49	206	46	6,611
2.0	83	0.0164	4.50	253	56	8,088
2.5	102	0.0202	4.52	291	64	9,268
3.0	122	0.0242	4.54	325	72	10,309
3.5	142	0.0281	4.56	350	77	11,057
4.0	161	0.0319	4.58	370	81	11,643
4.5	181	0.0358	4.59	388	84	12,160
5.0	200	0.0396	4.61	405	88	12,643
5.5	220	0.0436	4.63	419	90	13,026
6.0	239	0.0473	4.65	431	93	13,346
6.5	260	0.0515	4.67	446	95	13,751
7.0	286	0.0566	4.70	458	98	14,044
7.5	314	0.0622	4.72	469	99	14,297
8.0	342	0.0677	4.75	476	100	14,424
8.5	370	0.0733	4.78	483	101	14,549
9.0	400	0.0792	4.81	489	102	14,636
9.5	433	0.0857	4.85	491	101	14,591
10.0	467	0.0925	4.88	479	98	14,130



Palm and Nipomo Parking Structure

SL-16264-SA

UNCONFINED COMPRESSION ON COHESIVE SOIL

ASTM D 2166-06

August 29, 2010

Boring #8 @ 21.0 - 21.5'

Sandy Lean Clay (CL)

Ring Sample

COMPRESSIVE STRENGTH: 110 psi (15,886 psf)

Dry Density: 116.5 pcf

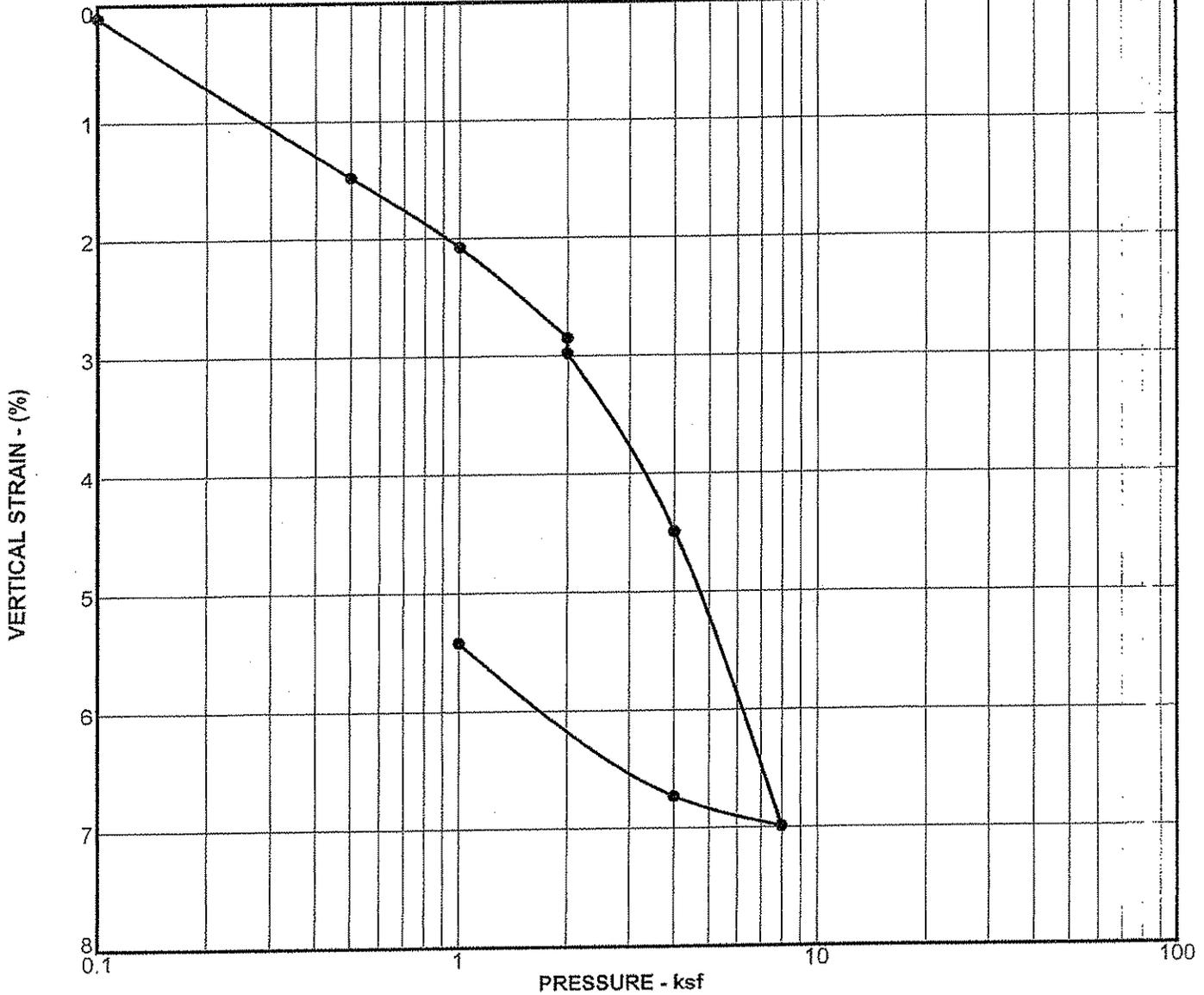
Moisture Content: 16.3%

Degree Saturation: 98.7%

Specific Gravity: 2.70 (assumed)

H/D Ratio: 1.69

TIME (MINUTES)	DEFORM, in (X 1000)	AXIAL STRAIN	AREA (SQ. IN.)	APPLIED LOAD (LBS)	STRENGTH (PSI)	STRENGTH (PSF)
0.5	27	0.0067	4.46	128	29	4,133
1.0	55	0.0137	4.49	243	54	7,790
1.5	84	0.0209	4.52	330	73	10,502
2.0	113	0.0282	4.56	386	85	12,193
2.5	143	0.0357	4.59	424	92	13,290
3.0	171	0.0426	4.63	456	99	14,190
3.5	200	0.0499	4.66	478	103	14,762
4.0	227	0.0566	4.70	498	106	15,271
4.5	256	0.0638	4.73	509	108	15,489
5.0	284	0.0708	4.77	521	109	15,736
5.5	312	0.0778	4.80	529	110	15,857
6.0	340	0.0848	4.84	534	110	15,886
6.5	370	0.0923	4.88	531	109	15,667
7.0	399	0.0995	4.92	504	102	14,752
7.5	426	0.1062	4.96	464	94	13,480
8.0	456	0.1137	5.00	416	83	11,984
8.5	483	0.1204	5.04	361	72	10,321
9.0	510	0.1272	5.08	325	64	9,220
9.5	529	0.1319	5.10	285	56	8,042
10.0	565	0.1409	5.16	241	47	6,730



Sample	B-1
Depth	16.0 ft
Description	Clay
Classification	CL

	Initial	Final
Dry density, pcf	101.3	109.0
Water content, %	22.9	21.6
Sample height, in.	1	0.9301



KLEINFELDER

CONSOLIDATION TEST
 PALM - NIPOMO SITE
 SAN LUIS OBISPO, CALIFORNIA

PLATE
 E-1

PROJECT NO. 54188-1



Unconfined Compression Test

Project Name:	Palm Nipomo	Sample Date/Time:	Not Provided
Project Number:	54188	Test Date:	5/3/05
Description:	Sandy Clay (CL) Olive Brown, Fine Grained		
Sample/Lab No.:	B2	Client Ref No:	Not Provided
Location:	B2	Sample Depth:	15'
Source:	Native	Vol./Tons:	Not Provided
Proposed Use:	Geotechnical		
Proving Ring No.:	3487	lbs./div.:	0.322
		Total Wt. Specimen Wet	723.6

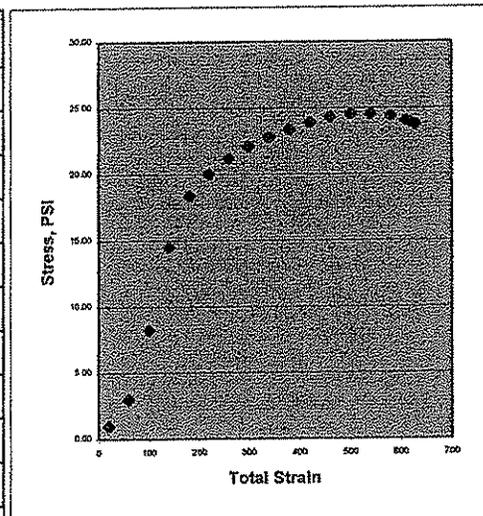
Water Content Determination

Tare No.	1	Water Content %:	Diameter, D _o , in.:	2.42	
Wt. Specimen Wet + Tare:	823.6	Dry Wt. At 105°C:	Area, A _o , in ² :	4.60	
Wt. Specimen Dry + Tare:		Unit Wt. Wet:	124.9	Height, H _o , in.:	4.8
Wt. Water:	823.6	Unit Wt. Dry:		Volume, V _o , in ³ :	22.08
Wt. Tare:	100				
Wt. Specimen Dry:					

Corr. Area = A_o / 1-Unit Strain

Test Data

Load Dial (0.0001")	Axial Load	Total Strain	Unit Strain	Corrected Area, in.2	Stress, PSI
14	4.5	20	0.0042	4.62	0.98
43	13.8	60	0.0125	4.66	2.97
120	38.6	100	0.0208	4.70	8.23
213	68.6	140	0.0292	4.74	14.48
272	87.6	180	0.0375	4.78	18.33
300	96.6	220	0.0458	4.82	20.04
320	103.0	260	0.0542	4.86	21.19
336	108.2	300	0.0625	4.91	22.05
350	112.7	340	0.0708	4.95	22.77
362	116.6	380	0.0792	5.00	23.34
374	120.4	420	0.0875	5.04	23.89
384	123.6	460	0.0958	5.09	24.31
391	125.9	500	0.1042	5.13	24.52
395	127.2	540	0.1125	5.18	24.54
396	127.5	580	0.1208	5.23	24.37
393	126.5	610	0.1271	5.27	24.02
392	126.2	620	0.1292	5.28	23.90
390	125.6	630	0.1313	5.29	23.72



Failure Conditions: conical at middle of sample

q (psf) =	3533.9
C (psf) =	1767.0

Remarks:

Check Test: ASTM D2166

Technician: F. Portillo

Lab Coordinator: P. Geitner



Unconfined Compression Test

Project Name:	Palm Nipomo	Sample Date/Time:	Not Provided
Project Number:	54188	Test Date:	5/3/05
Description:	Silty Clay (CL) Dark Brown, Fine Grained		
Sample/Lab No.:	B3	Client Ref No:	Not Provided
Location:	B3	Sample Depth:	15'
Source:	Native	Vol/Tons:	Not Provided
Proposed Use:	Geotechnical		
Proving Ring No.:	3487	lbs./div.:	0.322
		Total Wt. Specimen Wet	732.6

Water Content Determination

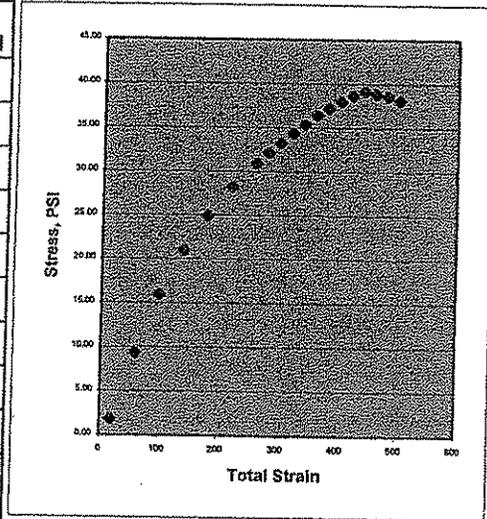
Tare No.	1	Water Content %:	Diameter, D_o , in.:	2.42	
Wt. Specimen Wet + Tare:	832.6	Dry Wt. At 105°C:	Area, A_o , in ² :	4.60	
Wt. Specimen Dry + Tare:		Unit Wt. Wet:	140.5	Height, H_o , in.:	4.32
Wt. Water:	832.6	Unit Wt. Dry:		Volume, V_o , in ³ :	19.87
Wt. Tare:	100				

w

Corr. Area = $A_o / 1$ -Unit Strain

Test Data

Load Dial (0.0001")	Axial Load	Total Strain	Unit Strain	Corrected Area, in.2	Stress, PSI
25	8.1	20	0.0046	4.62	1.74
135	43.5	60	0.0139	4.66	9.32
233	75.0	100	0.0231	4.71	15.93
309	99.5	140	0.0324	4.75	20.93
371	119.5	180	0.0417	4.80	24.89
424	136.5	220	0.0509	4.85	28.17
470	151.3	260	0.0602	4.89	30.92
490	157.8	280	0.0648	4.92	32.08
510	164.2	300	0.0694	4.94	33.22
529	170.3	320	0.0741	4.97	34.29
548	176.5	340	0.0787	4.99	35.34
567	182.6	360	0.0833	5.02	36.39
583	187.7	380	0.0880	5.04	37.22
598	192.6	400	0.0926	5.07	37.99
612	197.1	420	0.0972	5.09	38.68
622	200.3	440	0.1019	5.12	39.11
621	200.0	460	0.1065	5.15	38.85
619	199.3	480	0.1111	5.17	38.52
615	198.0	500	0.1157	5.20	38.07



Failure Conditions: conical at middle of sample

q (psf) =	5631.7
C (psf) =	2815.8

Remarks:

Check Test: © ASTM D2166

Technician: F. Portillo

Lab Coordinator: P. Geitner

APPENDIX C

Geotechnical Laboratory Test Results, Earth Systems Pacific

Geotechnical Laboratory Test Results, Kleinfelder



Palm and Nipomo Parking Structure

SL-16264-SA

BULK DENSITY TEST RESULTS

ASTM D 2937-04 (modified for ring liners)

August 29, 2010

BORING NO.	DEPTH feet	MOISTURE CONTENT, %	WET DENSITY, pcf	DRY DENSITY, pcf
4	5.5 - 6.0	13.0	119.2	105.5
4	10.5 - 11.0	22.9	116.1	94.5
4	15.0 - 15.5	23.7	127.5	103.1
7	15.5 - 16.0	17.2	134.1	114.4
8	21.0 - 21.5	16.3	135.5	116.5

EXPANSION INDEX TEST RESULTS

ASTM D 4829-08a

SAMPLE	EXPANSION INDEX
Composite sample of: 7 @ 10.0-10.5' 8 @ 16.0-16.5'	87



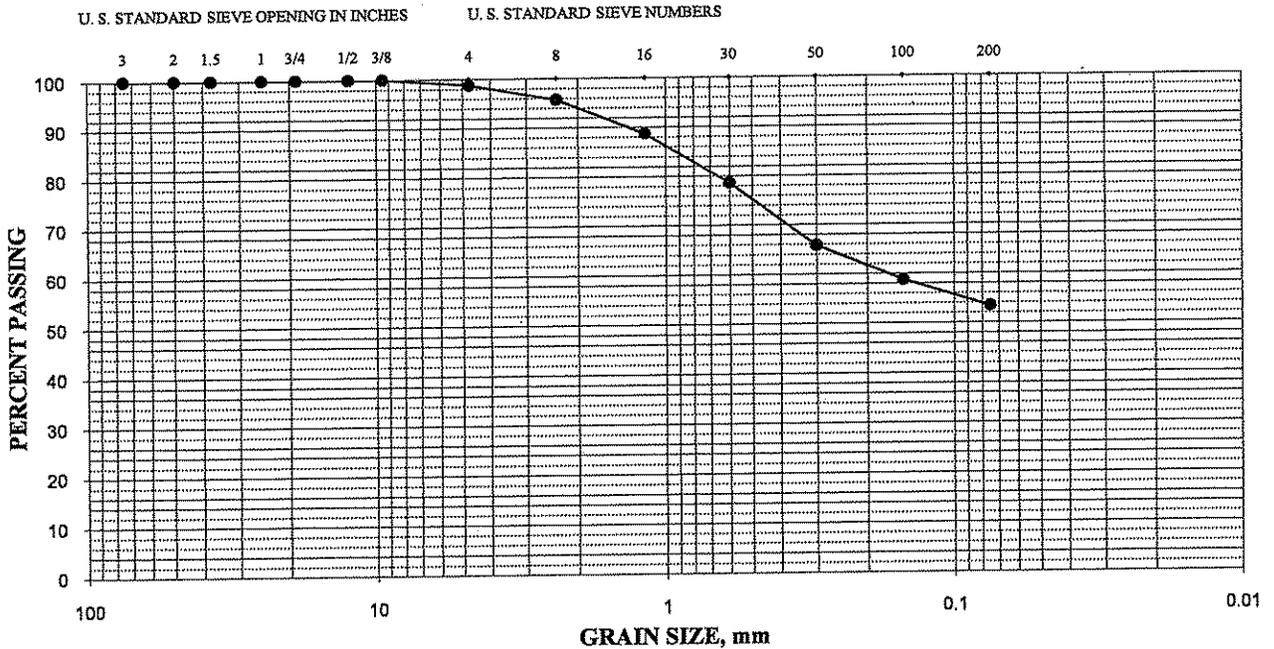
PARTICLE SIZE ANALYSIS

ASTM D 422-63/07; D 1140-06

Boring #4 @ 15.0 - 15.5'
Sandy Lean Clay (CL)

August 29, 2010

Sieve size	% Retained	% Passing
3" (75-mm)	0	100
2" (50-mm)	0	100
1.5" (37.5-mm)	0	100
1" (25-mm)	0	100
3/4" (19-mm)	0	100
1/2" (12.5-mm)	0	100
3/8" (9.5-mm)	0	100
#4 (4.75-mm)	1	99
#8 (2.36-mm)	4	96
#16 (1.18-mm)	11	89
#30 (600- μ m)	21	79
#50 (300- μ m)	34	66
#100 (150- μ m)	41	59
#200 (75- μ m)	47	53





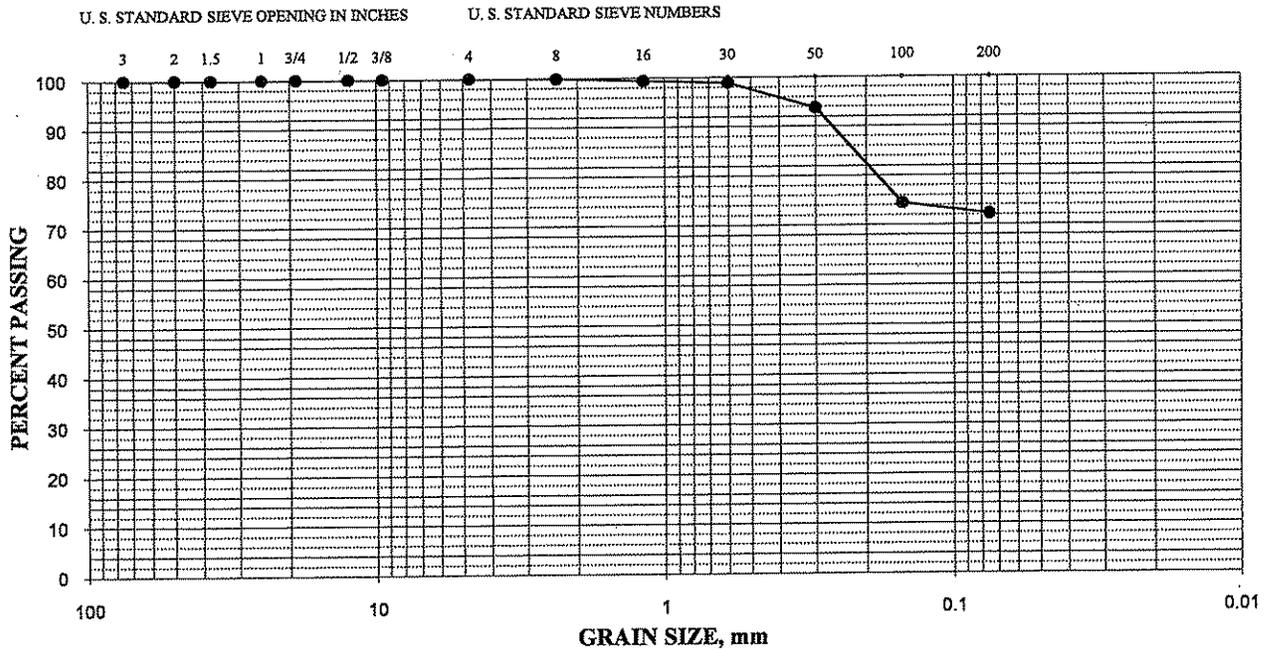
PARTICLE SIZE ANALYSIS

ASTM D 422-63/07; D 1140-06

Boring #7 @ 20.0 - 21.5'
Sandy Lean Clay (CL)

August 29, 2010

Sieve size	% Retained	% Passing
3" (75-mm)	0	100
2" (50-mm)	0	100
1.5" (37.5-mm)	0	100
1" (25-mm)	0	100
3/4" (19-mm)	0	100
1/2" (12.5-mm)	0	100
3/8" (9.5-mm)	0	100
#4 (4.75-mm)	0	100
#8 (2.36-mm)	0	100
#16 (1.18-mm)	1	99
#30 (600- μ m)	1	99
#50 (300- μ m)	6	94
#100 (150- μ m)	26	74
#200 (75- μ m)	28	72





PARTICLE SIZE ANALYSIS

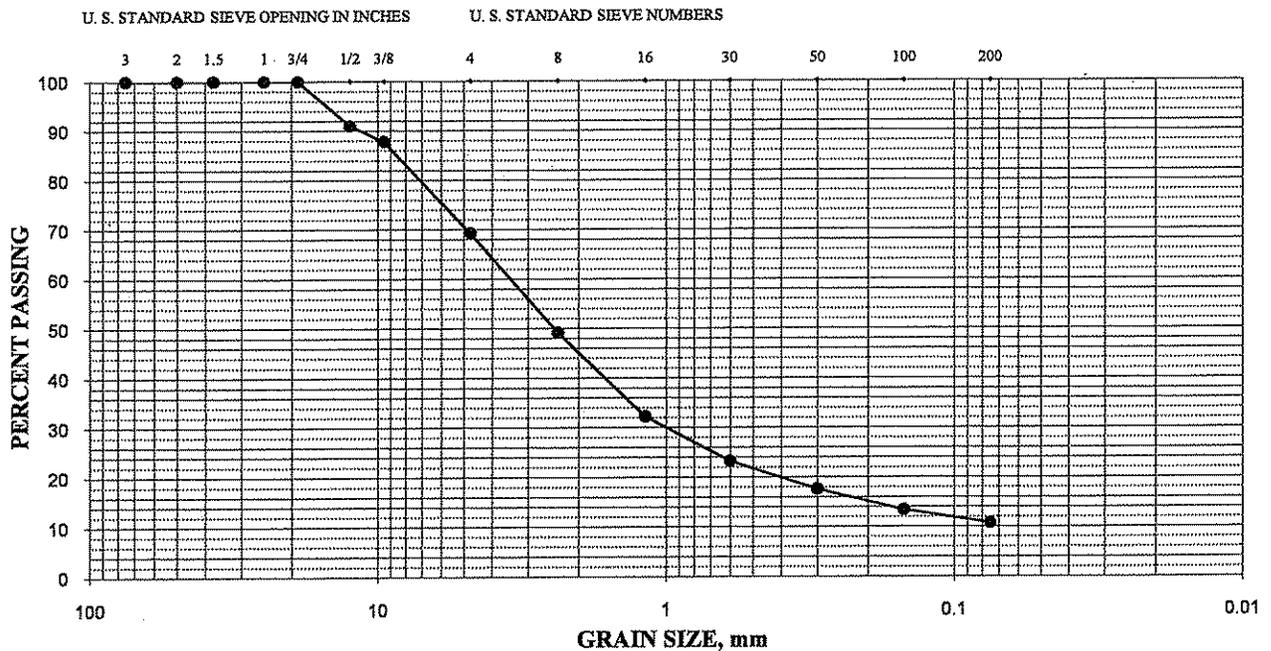
ASTM D 422-63/07; D 1140-06

Boring #8 @ 35.0 - 35.5'

August 29, 2010

Clayey Sand with Gravel (SC)

Sieve size	% Retained	% Passing
3" (75-mm)	0	100
2" (50-mm)	0	100
1.5" (37.5-mm)	0	100
1" (25-mm)	0	100
3/4" (19-mm)	0	100
1/2" (12.5-mm)	9	91
3/8" (9.5-mm)	12	88
#4 (4.75-mm)	31	69
#8 (2.36-mm)	51	49
#16 (1.18-mm)	68	32
#30 (600- μ m)	77	23
#50 (300- μ m)	82	18
#100 (150- μ m)	87	13
#200 (75- μ m)	89	11





DIRECT SHEAR

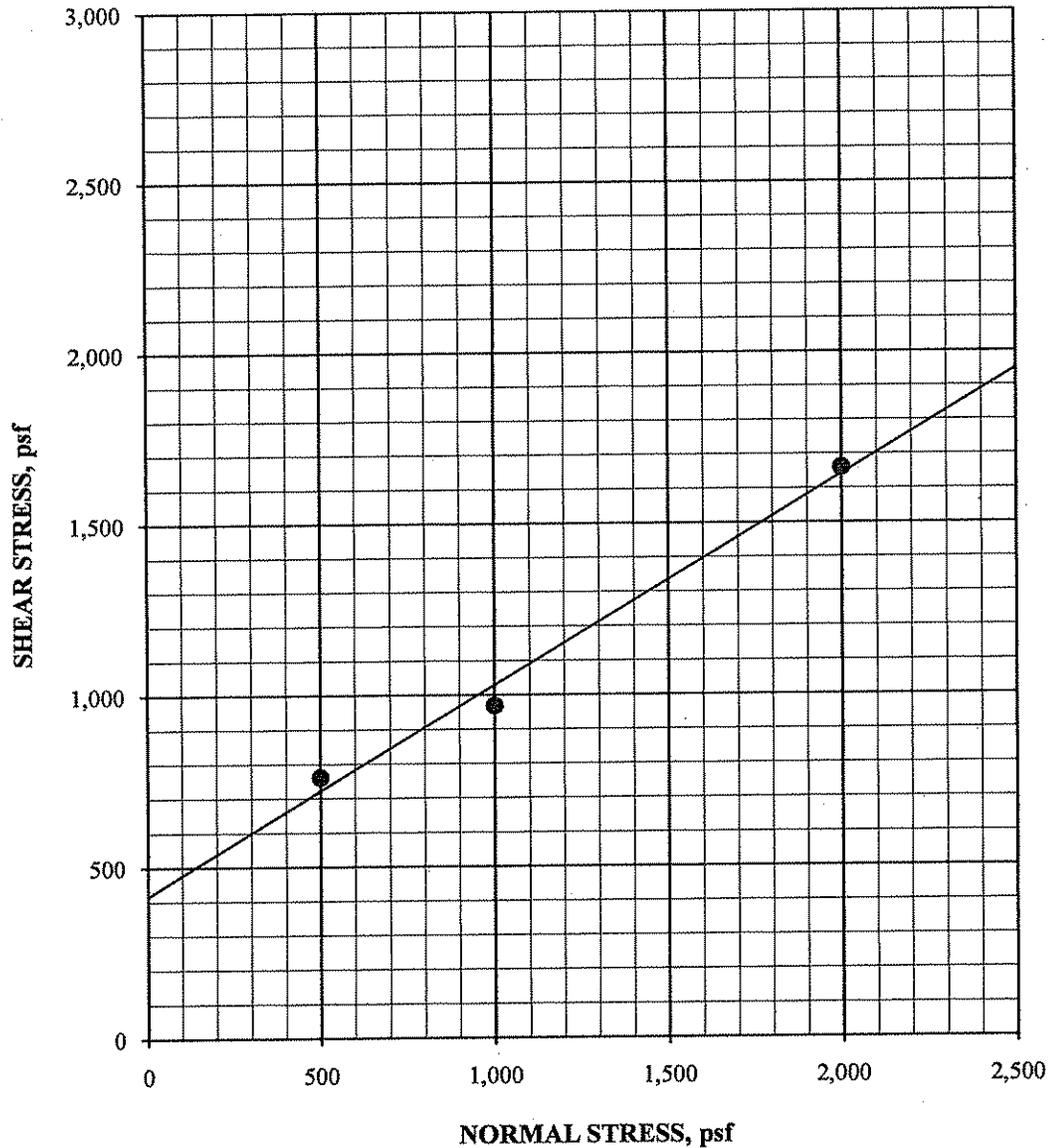
ASTM D 3080-04 (modified for consolidated, undrained conditions)

August 29, 2010

Boring #4 @ 6.0 - 6.5'
Sandy Lean Clay (CL)
Ring sample, saturated

INITIAL DRY DENSITY: 101.5 pcf
INITIAL MOISTURE CONTENT: 13.0 %
PEAK SHEAR ANGLE (ϕ): 32°
COHESION (C): 415 psf

SHEAR vs. NORMAL STRESS





DIRECT SHEAR continued

ASTM D 3080-04 (modified for consolidated, undrained conditions)

Boring #4 @ 6.0 - 6.5'

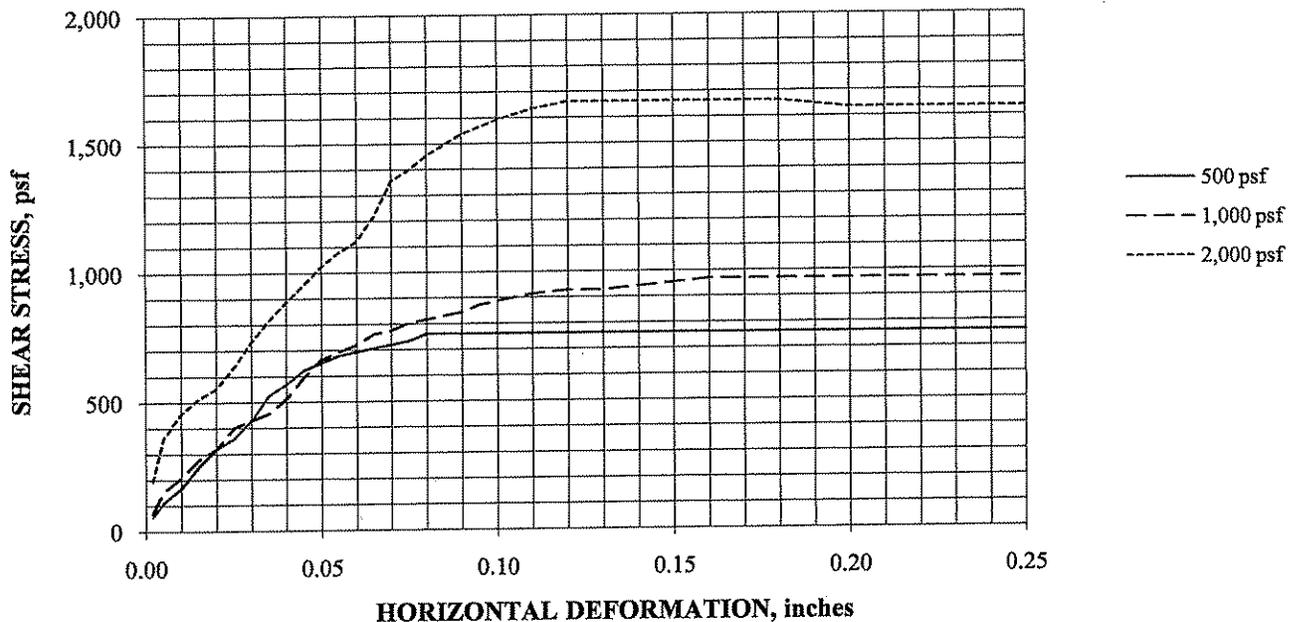
August 29, 2010

Sandy Lean Clay (CL)

Ring sample, saturated

SPECIFIC GRAVITY: 2.70 (assumed)

SAMPLE NO.:	1	2	3	AVERAGE
INITIAL				
WATER CONTENT, %	13.0	13.0	13.0	13.0
DRY DENSITY, pcf	102.0	103.9	98.7	101.5
SATURATION, %	53.8	56.4	49.6	53.3
VOID RATIO	0.652	0.622	0.707	0.660
DIAMETER, inches	2.375	2.375	2.375	
HEIGHT, inches	1.00	1.00	1.00	
AT TEST				
WATER CONTENT, %	25.3	22.1	22.0	
DRY DENSITY, pcf	103.9	106.8	106.0	
SATURATION, %	100.0	100.0	100.0	
VOID RATIO	0.621	0.578	0.589	
HEIGHT, inches	0.98	0.97	0.93	





Palm and Nipomo Parking Structure

SL-16264-SA

UNCONFINED COMPRESSION ON COHESIVE SOIL

ASTM D 2166-06

August 29, 2010

Boring #7 @ 15.5 - 16'

Sandy Lean Clay (CL)

Ring Sample

COMPRESSIVE STRENGTH: 102 psi (14,636 psf)

Dry Density: 114.4 pcf

Moisture Content: 17.2%

Degree Saturation: 98.3%

Specific Gravity: 2.70 (assumed)

H/D Ratio: 2.13

TIME (MINUTES)	DEFORM, in (X 1000)	AXIAL STRAIN	AREA (SQ. IN.)	APPLIED LOAD (LBS)	STRENGTH (PSI)	STRENGTH (PSF)
0.5	21	0.0042	4.45	76	17	2,460
1.0	43	0.0085	4.47	145	32	4,673
1.5	64	0.0127	4.49	206	46	6,611
2.0	83	0.0164	4.50	253	56	8,088
2.5	102	0.0202	4.52	291	64	9,268
3.0	122	0.0242	4.54	325	72	10,309
3.5	142	0.0281	4.56	350	77	11,057
4.0	161	0.0319	4.58	370	81	11,643
4.5	181	0.0358	4.59	388	84	12,160
5.0	200	0.0396	4.61	405	88	12,643
5.5	220	0.0436	4.63	419	90	13,026
6.0	239	0.0473	4.65	431	93	13,346
6.5	260	0.0515	4.67	446	95	13,751
7.0	286	0.0566	4.70	458	98	14,044
7.5	314	0.0622	4.72	469	99	14,297
8.0	342	0.0677	4.75	476	100	14,424
8.5	370	0.0733	4.78	483	101	14,549
9.0	400	0.0792	4.81	489	102	14,636
9.5	433	0.0857	4.85	491	101	14,591
10.0	467	0.0925	4.88	479	98	14,130



Palm and Nipomo Parking Structure

SL-16264-SA

UNCONFINED COMPRESSION ON COHESIVE SOIL

ASTM D 2166-06

August 29, 2010

Boring #8 @ 21.0 - 21.5'

Sandy Lean Clay (CL)

Ring Sample

COMPRESSIVE STRENGTH: 110 psi (15,886 psf)

Dry Density: 116.5 pcf

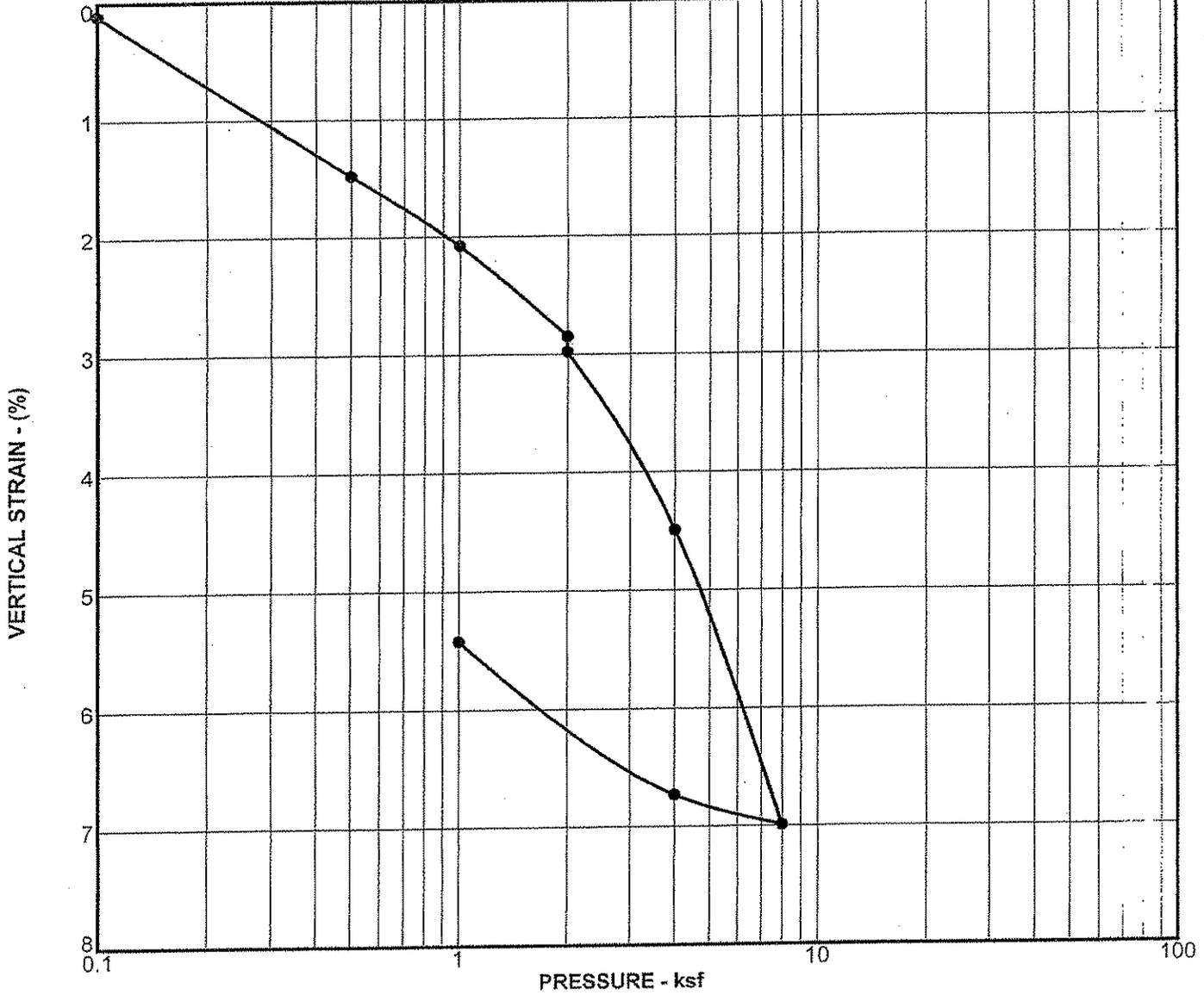
Moisture Content: 16.3%

Degree Saturation: 98.7%

Specific Gravity: 2.70 (assumed)

H/D Ratio: 1.69

TIME (MINUTES)	DEFORM, in (X 1000)	AXIAL STRAIN	AREA (SQ. IN.)	APPLIED LOAD (LBS)	STRENGTH (PSI)	STRENGTH (PSF)
0.5	27	0.0067	4.46	128	29	4,133
1.0	55	0.0137	4.49	243	54	7,790
1.5	84	0.0209	4.52	330	73	10,502
2.0	113	0.0282	4.56	386	85	12,193
2.5	143	0.0357	4.59	424	92	13,290
3.0	171	0.0426	4.63	456	99	14,190
3.5	200	0.0499	4.66	478	103	14,762
4.0	227	0.0566	4.70	498	106	15,271
4.5	256	0.0638	4.73	509	108	15,489
5.0	284	0.0708	4.77	521	109	15,736
5.5	312	0.0778	4.80	529	110	15,857
6.0	340	0.0848	4.84	534	110	15,886
6.5	370	0.0923	4.88	531	109	15,667
7.0	399	0.0995	4.92	504	102	14,752
7.5	426	0.1062	4.96	464	94	13,480
8.0	456	0.1137	5.00	416	83	11,984
8.5	483	0.1204	5.04	361	72	10,321
9.0	510	0.1272	5.08	325	64	9,220
9.5	529	0.1319	5.10	285	56	8,042
10.0	565	0.1409	5.16	241	47	6,730



Sample	B- 1
Depth	16.0 ft
Description	Clay
Classification	CL

	Initial	Final
Dry density, pcf	101.3	109.0
Water content, %	22.9	21.6
Sample height, in.	1	0.9301



KLEINFELDER

CONSOLIDATION TEST
 PALM - NIPOMO SITE
 SAN LUIS OBISPO, CALIFORNIA

PLATE

E-1

PROJECT NO. 54188-1



Unconfined Compression Test

Project Name:	Palm Nipomo	Sample Date/Time:	Not Provided
Project Number:	54188	Test Date:	5/3/05
Description:	Sandy Clay (CL) Olive Brown, Fine Grained		
Sample/Lab No.:	B2	Client Ref No.:	Not Provided
Location:	B2	Sample Depth:	15'
Source:	Native	Vol./Tons:	Not Provided
Proposed Use:	Geotechnical		
Proving Ring No.:	3487	lbs./div.:	0.322
		Total Wt. Specimen Wet	723.6

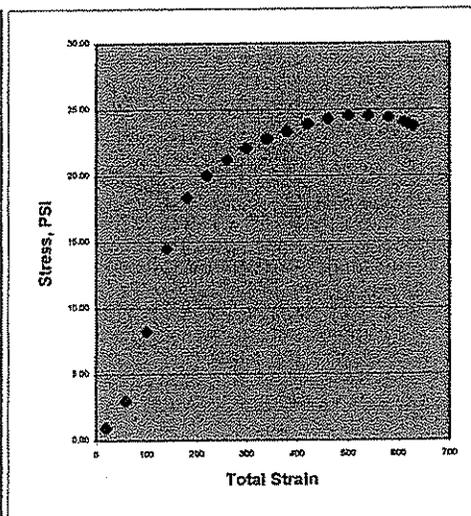
Water Content Determination

Tare No.	1	Water Content %:	Diameter, D _o , in.:	2.42	
Wt. Specimen Wet + Tare:	823.6	Dry Wt. At 105°C:	Area, A _o , in ² :	4.60	
Wt. Specimen Dry + Tare:		Unit Wt. Wet:	124.9	Height, H _o , in.:	4.8
Wt. Water:	823.6	Unit Wt. Dry:		Volume, V _o , in ³ :	22.08
Wt. Tare:	100				
Wt. Specimen Dry:					

Corr. Area = A_o / 1-Unit Strain

Test Data

Load Dial (0.0001")	Axial Load	Total Strain	Unit Strain	Corrected Area, in.2	Stress, PSI
14	4.5	20	0.0042	4.62	0.98
43	13.8	60	0.0125	4.66	2.97
120	38.6	100	0.0208	4.70	8.23
213	68.6	140	0.0292	4.74	14.48
272	87.6	180	0.0375	4.78	18.33
300	96.6	220	0.0458	4.82	20.04
320	103.0	260	0.0542	4.86	21.19
336	108.2	300	0.0625	4.91	22.05
350	112.7	340	0.0708	4.95	22.77
362	116.6	380	0.0792	5.00	23.34
374	120.4	420	0.0875	5.04	23.89
384	123.6	460	0.0958	5.09	24.31
391	125.9	500	0.1042	5.13	24.52
395	127.2	540	0.1125	5.18	24.54
396	127.5	580	0.1208	5.23	24.37
393	126.5	610	0.1271	5.27	24.02
392	126.2	620	0.1292	5.28	23.90
390	125.6	630	0.1313	5.29	23.72



Failure Conditions: conical at middle of sample

q (psf) =	3533.9
C (psf) =	1767.0

Remarks:

Check Test: ASTM D2166

Technician: F. Portillo

Lab Coordinator: P. Geitner



Unconfined Compression Test

Project Name:	Palm Nipomo	Sample Date/Time:	Not Provided
Project Number:	54188	Test Date:	5/3/05
Description:	Silty Clay (CL) Dark Brown, Fine Grained		
Sample/Lab No.:	B3	Client Ref No:	Not Provided
Location:	B3	Sample Depth:	15'
Source:	Native	Vol./Tons:	Not Provided
Proposed Use:	Geotechnical		
Proving Ring No.:	3487	lbs./div.:	0.322
		Total Wt. Specimen Wet	732.6

Water Content Determination

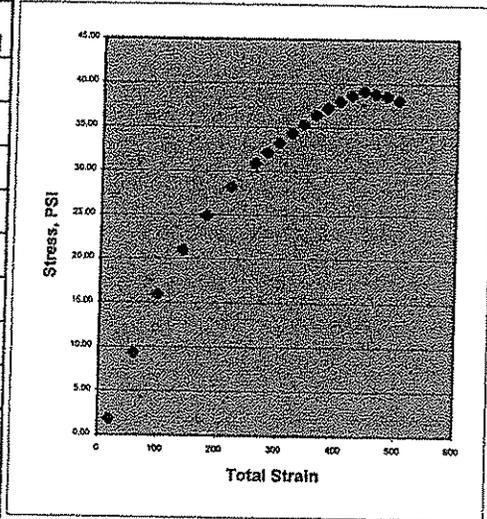
Tare No.	1	Water Content %:	Diameter, D_o , in.:	2.42	
Wt. Specimen Wet + Tare:	832.6	Dry Wt. At 105°C:	Area, A_o , in ² :	4.60	
Wt. Specimen Dry + Tare:		Unit Wt. Wet:	140.5	Height, H_o , in.:	4.32
Wt. Water:	832.6	Unit Wt. Dry:		Volume, V_o , in ³ :	19.87
Wt. Tare:	100				

w

Corr. Area = $A_o / 1$ -Unit Strain

Test Data

Load Dial (0.0001")	Axial Load	Total Strain	Unit Strain	Corrected Area, in.2	Stress, PSI
25	8.1	20	0.0046	4.62	1.74
135	43.5	60	0.0139	4.66	9.32
233	75.0	100	0.0231	4.71	15.93
309	99.5	140	0.0324	4.75	20.93
371	119.5	180	0.0417	4.80	24.89
424	136.5	220	0.0509	4.85	28.17
470	151.3	260	0.0602	4.89	30.92
490	157.8	280	0.0648	4.92	32.08
510	164.2	300	0.0694	4.94	33.22
529	170.3	320	0.0741	4.97	34.29
548	176.5	340	0.0787	4.99	35.34
567	182.6	360	0.0833	5.02	36.39
583	187.7	380	0.0880	5.04	37.22
598	192.6	400	0.0926	5.07	37.99
612	197.1	420	0.0972	5.09	38.68
622	200.3	440	0.1019	5.12	39.11
621	200.0	460	0.1065	5.15	38.85
619	199.3	480	0.1111	5.17	38.52
615	198.0	500	0.1157	5.20	38.07



Failure Conditions: conical at middle of sample

q (psf) = 5631.7

C (psf) = 2815.8

Remarks:

Check Test: ASTM D2166

Technician: F. Portillo

Lab Coordinator: P. Geitner

APPENDIX D

Hazardous Materials Laboratory Test Results

Chain of Custody Documents

Oilfield Environmental and Compliance, INC.



Tim Conroy
Earth Systems Pacific
4378 Santa Fe Rd.
San Luis Obispo, CA 93401

02 September 2010

RE: Palm-Nipomo Parking Structure

Work Order: 1003032

Dear Client:

Enclosed is an analytical report for the above referenced project. The samples included in this report were received on 20-Aug-10 17:10 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read "Lisa Race", written in a cursive style.

Lisa Race

Laboratory Manager



Oilfield Environmental and Compliance, INC.

Earth Systems Pacific 4378 Santa Fe Rd. San Luis Obispo CA, 93401	Project: Palm-Nipomo Parking Structure Project Number: SL-16264-SA Project Manager: Tim Conroy	Reported: 02-Sep-10 11:00
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-4/2'	1003032-01	Solid	18-Aug-10 00:00	20-Aug-10 17:10
B-4/4'	1003032-02	Solid	18-Aug-10 00:00	20-Aug-10 17:10
B-4/9'	1003032-03	Solid	18-Aug-10 00:00	20-Aug-10 17:10
B-5/2'	1003032-04	Solid	18-Aug-10 00:00	20-Aug-10 17:10
B-5/5'	1003032-05	Solid	18-Aug-10 00:00	20-Aug-10 17:10
B-5/10'	1003032-06	Solid	18-Aug-10 00:00	20-Aug-10 17:10
B-6/3'	1003032-07	Solid	18-Aug-10 00:00	20-Aug-10 17:10
B-6/5'	1003032-08	Solid	18-Aug-10 00:00	20-Aug-10 17:10
B-6/10'	1003032-09	Solid	18-Aug-10 00:00	20-Aug-10 17:10



Oilfield Environmental and Compliance, INC.

Earth Systems Pacific 4378 Santa Fe Rd. San Luis Obispo CA, 93401	Project: Palm-Nipomo Parking Structure Project Number: SL-16264-SA Project Manager: Tim Conroy	Reported: 02-Sep-10 11:00
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B-4/2'
1003032-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Total Metals by EPA 6000/7000 Series Methods

Cadmium	1.4	0.85	mg/kg	5	A008544	30-Aug-10	01-Sep-10	EPA 6020	
Chromium	280	3.4	"	20	"	"	01-Sep-10	"	
Lead	25	0.85	"	5	"	"	01-Sep-10	"	
Nickel	400	3.4	"	20	"	"	01-Sep-10	"	
Zinc	69	2.1	"	5	"	"	01-Sep-10	"	

TEPH by GC FID

TPH Diesel (C13-C22)	ND	10	mg/kg	1	A008439	24-Aug-10	24-Aug-10	EPA 8015	
TPH Motor Oil (C23-C40)	ND	50	"	"	"	"	"	"	
Surrogate: o-Terphenyl		112 %	50-150		"	"	"	"	

B-4/4'
1003032-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

Total Metals by EPA 6000/7000 Series Methods

Cadmium	1.7	0.92	mg/kg	5	A008544	30-Aug-10	01-Sep-10	EPA 6020	
Chromium	200	1.8	"	10	"	"	01-Sep-10	"	
Lead	45	0.92	"	5	"	"	01-Sep-10	"	
Nickel	250	1.8	"	10	"	"	01-Sep-10	"	
Zinc	89	2.3	"	5	"	"	01-Sep-10	"	

TEPH by GC FID

TPH Diesel (C13-C22)	ND	10	mg/kg	1	A008439	24-Aug-10	24-Aug-10	EPA 8015	
TPH Motor Oil (C23-C40)	140	50	"	"	"	"	"	"	
Surrogate: o-Terphenyl		107 %	50-150		"	"	"	"	

Oilfield Environmental and Compliance

307 Roemer Way, Suite 300, Santa Maria, CA 93454

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

Earth Systems Pacific 4378 Santa Fe Rd. San Luis Obispo CA, 93401	Project: Palm-Nipomo Parking Structure Project Number: SL-16264-SA Project Manager: Tim Conroy	Reported: 02-Sep-10 11:00
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B-4/9'
1003032-03 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TEPH by GC FID									
TPH Diesel (C13-C22)	ND	10	mg/kg	1	A008439	24-Aug-10	24-Aug-10	EPA 8015	
TPH Motor Oil (C23-C40)	ND	50	"	"	"	"	"	"	
Surrogate: o-Terphenyl		108 %	50-150		"	"	"	"	

B-5/2'
1003032-04 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Metals by EPA 6000/7000 Series Methods									
Cadmium	1.3	0.90	mg/kg	5	A008544	30-Aug-10	01-Sep-10	EPA 6020	
Chromium	120	1.8	"	10	"	"	01-Sep-10	"	
Lead	14	0.90	"	5	"	"	01-Sep-10	"	
Nickel	160	1.8	"	10	"	"	01-Sep-10	"	
Zinc	65	2.2	"	5	"	"	01-Sep-10	"	
TEPH by GC FID									
TPH Diesel (C13-C22)	ND	10	mg/kg	1	A008439	24-Aug-10	24-Aug-10	EPA 8015	
TPH Motor Oil (C23-C40)	ND	50	"	"	"	"	"	"	
Surrogate: o-Terphenyl		112 %	50-150		"	"	"	"	

B-5/5'
1003032-05 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TEPH by GC FID									
TPH Diesel (C13-C22)	ND	10	mg/kg	1	A008439	24-Aug-10	24-Aug-10	EPA 8015	
TPH Motor Oil (C23-C40)	ND	50	"	"	"	"	"	"	
Surrogate: o-Terphenyl		107 %	50-150		"	"	"	"	

Oilfield Environmental and Compliance

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Oilfield Environmental and Compliance, INC.

Earth Systems Pacific 4378 Santa Fe Rd. San Luis Obispo CA, 93401	Project: Palm-Nipomo Parking Structure Project Number: SL-16264-SA Project Manager: Tim Conroy	Reported: 02-Sep-10 11:00
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B-5/10'
1003032-06 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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TEPH by GC FID

TPH Diesel (C13-C22)	ND	10	mg/kg	1	A008439	24-Aug-10	24-Aug-10	EPA 8015	
TPH Motor Oil (C23-C40)	ND	50	"	"	"	"	"	"	
Surrogate: o-Terphenyl		107 %	50-150		"	"	"	"	

B-6/3'
1003032-07 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

Total Metals by EPA 6000/7000 Series Methods

Cadmium	1.5	0.97	mg/kg	5	A008544	30-Aug-10	01-Sep-10	EPA 6020	
Chromium	130	0.97	"	"	"	"	"	"	
Lead	27	0.97	"	"	"	"	"	"	
Nickel	210	1.9	"	10	"	"	01-Sep-10	"	
Zinc	66	2.4	"	5	"	"	01-Sep-10	"	

TEPH by GC FID

TPH Diesel (C13-C22)	ND	50	mg/kg	5	A008439	24-Aug-10	24-Aug-10	EPA 8015	
TPH Motor Oil (C23-C40)	3700	250	"	"	"	"	"	"	
Surrogate: o-Terphenyl		99.3 %	50-150		"	"	"	"	

B-6/5'
1003032-08 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

TEPH by GC FID

TPH Diesel (C13-C22)	ND	10	mg/kg	1	A008439	24-Aug-10	24-Aug-10	EPA 8015	
TPH Motor Oil (C23-C40)	71	50	"	"	"	"	"	"	
Surrogate: o-Terphenyl		106 %	50-150		"	"	"	"	

Oilfield Environmental and Compliance

307 Roemer Way, Suite 300, Santa Maria, CA 93454

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Oilfield Environmental and Compliance, INC.

Earth Systems Pacific
4378 Santa Fe Rd.
San Luis Obispo CA, 93401

Project: Palm-Nipomo Parking Structure
Project Number: SL-16264-SA
Project Manager: Tim Conroy

Reported:
02-Sep-10 11:00

B-6/10'
1003032-09 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TEPH by GC FID									
TPH Diesel (C13-C22)	ND	10	mg/kg	1	A008439	24-Aug-10	24-Aug-10	EPA 8015	
TPH Motor Oil (C23-C40)	ND	50	"	"	"	"	"	"	
Surrogate: o-Terphenyl		106 %	50-150		"	"	"	"	

Oilfield Environmental and Compliance

307 Roemer Way, Suite 300, Santa Maria, CA 93454

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Oilfield Environmental and Compliance, INC.

Earth Systems Pacific 4378 Santa Fe Rd. San Luis Obispo CA, 93401	Project: Palm-Nipomo Parking Structure Project Number: SL-16264-SA Project Manager: Tim Conroy	Reported: 02-Sep-10 11:00
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Total Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch A008544 - EPA 3050B

Blank (A008544-BLK1)										
Prepared: 30-Aug-10 Analyzed: 01-Sep-10										
Cadmium	ND	0.20	mg/kg							
Chromium	ND	0.20	"							
Lead	ND	0.20	"							
Nickel	ND	0.20	"							
Zinc	ND	0.50	"							

LCS (A008544-BS1)										
Prepared: 30-Aug-10 Analyzed: 01-Sep-10										
Cadmium	15.3	0.20	mg/kg	15.0		102	85-115			
Chromium	14.8	0.20	"	15.0		98.9	85-115			
Lead	15.2	0.20	"	15.0		101	85-115			
Nickel	15.5	0.20	"	15.0		103	85-115			
Zinc	16.5	0.50	"	15.0		110	85-115			

LCS Dup (A008544-BSD1)										
Prepared: 30-Aug-10 Analyzed: 01-Sep-10										
Cadmium	15.2	0.20	mg/kg	15.0		101	85-115	0.777	20	
Chromium	15.1	0.20	"	15.0		101	85-115	1.88	20	
Lead	15.5	0.20	"	15.0		103	85-115	2.10	20	
Nickel	15.8	0.20	"	15.0		105	85-115	2.20	20	
Zinc	14.2	0.50	"	15.0		94.5	85-115	14.9	20	

Duplicate (A008544-DUP1)										
Source: 1003032-01 Prepared: 30-Aug-10 Analyzed: 01-Sep-10										
Cadmium	1.83	1.0	mg/kg		1.39			27.4	20	QM-04
Chromium	167	4.0	"		278			49.8	20	QM-04
Lead	31.8	1.0	"		24.7			25.0	20	QM-04
Nickel	264	4.0	"		403			41.7	20	QM-04
Zinc	93.5	2.5	"		68.7			30.5	20	QM-04

Matrix Spike (A008544-MS1)										
Source: 1003032-01 Prepared: 30-Aug-10 Analyzed: 01-Sep-10										
Cadmium	295	3.4	mg/kg	255	1.39	115	79-119			
Chromium	439	8.5	"	255	278	63.2	84-118			QM-06
Lead	314	3.4	"	255	24.7	114	60-136			
Nickel	603	8.5	"	255	403	78.3	77-123			
Zinc	233	8.5	"	255	68.7	64.4	56-141			

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Oilfield Environmental and Compliance, INC.

Earth Systems Pacific
4378 Santa Fe Rd.
San Luis Obispo CA, 93401

Project: Palm-Nipomo Parking Structure
Project Number: SL-16264-SA
Project Manager: Tim Conroy

Reported:
02-Sep-10 11:00

Total Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch A008544 - EPA 3050B

Matrix Spike Dup (A008544-MSD1)

Source: 1003032-01

Prepared: 30-Aug-10 Analyzed: 01-Sep-10

Cadmium	324	4.0	mg/kg	299	1.39	108	79-119	6.44	20	
Chromium	493	4.0	"	299	278	71.8	84-118	12.8	20	QM-06
Lead	357	4.0	"	299	24.7	111	60-136	2.36	20	
Nickel	570	10	"	299	403	55.6	77-123	33.8	20	QM-06
Zinc	306	10	"	299	68.7	79.4	56-141	20.8	20	QM-06

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---	--	------------------------------

TEPH by GC FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch A008439 - EPA 3550B										
Blank (A008439-BLK1) Prepared & Analyzed: 24-Aug-10										
TPH Diesel (C13-C22)	ND	10	mg/kg							
TPH Motor Oil (C23-C40)	ND	50	"							
Surrogate: o-Terphenyl	52.1		"	50.0		104	50-150			
LCS (A008439-BS1) Prepared & Analyzed: 24-Aug-10										
TPH Diesel (C13-C22)	459	10	mg/kg	500		91.9	70-130			
Surrogate: o-Terphenyl	52.1		"	50.0		104	50-150			
LCS Dup (A008439-BSD1) Prepared & Analyzed: 24-Aug-10										
TPH Diesel (C13-C22)	464	10	mg/kg	500		92.7	70-130	0.902	20	
Surrogate: o-Terphenyl	54.3		"	50.0		109	50-150			
Duplicate (A008439-DUP1) Source: 1003032-01 Prepared: 24-Aug-10 Analyzed: 25-Aug-10										
TPH Diesel (C13-C22)	ND	10	mg/kg		ND				20	
TPH Motor Oil (C23-C40)	20.9	50	"		21.7			3.62	20	
Surrogate: o-Terphenyl	55.7		"	50.0		111	50-150			
Matrix Spike (A008439-MS1) Source: 1003032-01 Prepared: 24-Aug-10 Analyzed: 25-Aug-10										
TPH Diesel (C13-C22)	550	10	mg/kg	500	ND	110	70-130			
Surrogate: o-Terphenyl	53.3		"	50.0		107	50-150			
Matrix Spike Dup (A008439-MSD1) Source: 1003032-01 Prepared: 24-Aug-10 Analyzed: 25-Aug-10										
TPH Diesel (C13-C22)	539	10	mg/kg	500	ND	108	70-130	2.16	20	
Surrogate: o-Terphenyl	52.6		"	50.0		105	50-150			



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Project Manager: Tim Conroy

Reported:
02-Sep-10 11:00

Notes and Definitions

- QM-06 Due to noted non-homogeneity of the QC sample matrix, the MS/MSD did not provide reliable results for accuracy and precision. Sample results for the QC batch were accepted based on LCS/LCSD percent recoveries and RPD values.
- QM-04 Visual evaluation of the sample indicates the RPD is above the control limit due to a non-homogeneous sample matrix.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

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 phone: (805) 922-4772 fax: (805) 925-3376



CHAIN OF CUSTODY

Company: Earth Systems Pacific Project Name: Palm - Nipona Parking Structure
 Street Address: 4378 Santa Fe Rd Site: SL-16264-SA
 City: SLD State: CA Zip: 93401
 Telephone: 544-3276 Fax: 544-3276
 Report To: Tim Conway Sampler: Tim Conway
 Comments:

Lab Sample ID	Date/Time Sampled	Matrix	# of Cont.	Client Sample ID	Analyses Requested			Remarks
					TPH/TPH Boils M	LPT	MEQMS	
1003032-1A	8/18/10	SOIL	1	B-4/2'	X	X		
2A			1	B-4/4'	X	X		
3A			1	B-4/9'	X	X		
4A			1	B-5/2'	X	X		
5A			1	B-5/5'	X	X		
6A			1	B-5/16'	X	X		
7A			1	B-6/3'	X	X		
8A			1	B-6/5'	X	X		
9A			1	B-6/10'	X	X		

Relinquished By: Tim Conway Date: 8/19/10 Time: 1600 Received By: Henry Mobley Date: 8-20-10 Time: 1630
 Relinquished By: Henry Mobley Date: 8-20-10 Time: 1710 Received By: Henry Mobley Date: 8-20-10 Time: 1710
 Relinquished By: _____ Date: _____ Time: _____ Received By: _____ Date: _____ Time: _____

Sample integrity upon receipt: _____ Method of shipment _____
 Samples received cold y/n _____ Samples received intact y/n _____
 Custody seals y/n _____

Comments

Appendix B

Cultural Resources Inventory Report and Native American Correspondence

From: Cohen, Rachel <rcohen@slocity.org>
Sent: Wednesday, August 02, 2017 2:12 PM
To: Salinantribe
Cc: Shauna Callery
Subject: RE: AB 52 notices: Palm Nipomo Parking Garage

Dear Ms. Dunton-

Thank you for your e-mail. We appreciate receiving your comments regarding the Palm Nipomo Parking Garage project. We have noted your comments and they will be taken into consideration as part of the environmental review process. Rincon, the environmental consultants for the project, have informed me that an archaeological survey has been completed for the site as part of the evaluation.

If you have any further comments or questions, please do not hesitate to contact me.

Sincerely,

Rachel Cohen
Associate Planner
Community Development
919 Palm Street, San Luis Obispo, CA 93401-3218 E rcohen@slocity.org T 805.781.7574 slocity.org

-----Original Message-----

From: Salinantribe [<mailto:salinantribe@aol.com>]
Sent: Monday, July 31, 2017 12:59 PM
To: Cohen, Rachel <rcohen@slocity.org>
Subject: AB 52 notices

Greetings Rachel, I have reviewed the two proposed development projects. I have concerns about both projects. The first project is the proposed housing development at 791 Orcutt Rd. Because the property is surrounded by two creeks and undeveloped we have concerns there could be unknown resources at the location. We would like to see a phase I archaeological study be done. If the survey is positive for resources we would then request more studies be done. Any ground disturbance activities for studies or development, must be monitored by a cultural resource specialist from this tribe be on site. If there is a negative result we would request that since there maybe buried unknown resources we would request that we are able to do spot monitoring. To make sure unknown resources such as burials are not being impacted. Now for the second project this is concerning the new Palm Nipomo Parking Structure. Because of the projects location to mission San Luis Obispo de Tolosa and San Luis creek we realize there may also be known and unknown resources at this site. Even though most of the property has been previously disturbed there may still be intact buried resources. You would know more if resources have ever been identified at that location or not. I would request that a phase I archaeological survey be done even with the minimal ground that is not covered. And again when the asphalt is removed and any after any other demolition. This would insure intact or disturbed resources can be identified. If resources are identified then we would request that all further ground disturbing activities be monitored by a cultural resource specialist from this tribe. Thanks so much, Patti Dunton, Tribal Administrator

Sent from my iPhone

Cultural Resources Inventory for the Palm-Nipomo Parking Structure, San Luis Obispo, California

Barry A. Price, Keith Warren,
Aubrie Morlet, and Damon M. Haydu

Prepared By



Applied EarthWorks, Inc.
743 Pacific Avenue, Suite A
San Luis Obispo, California 93401

Submitted To
City of San Luis Obispo
Department of Public Works
955 Morro Street
San Luis Obispo, CA 93401

June 2011

USGS San Luis Obispo 7.5' quad
1.5 acres

Keywords: Mission San Luis Obispo; 610 Monterey Street; 614 Monterey Street (Heyd Property)

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1

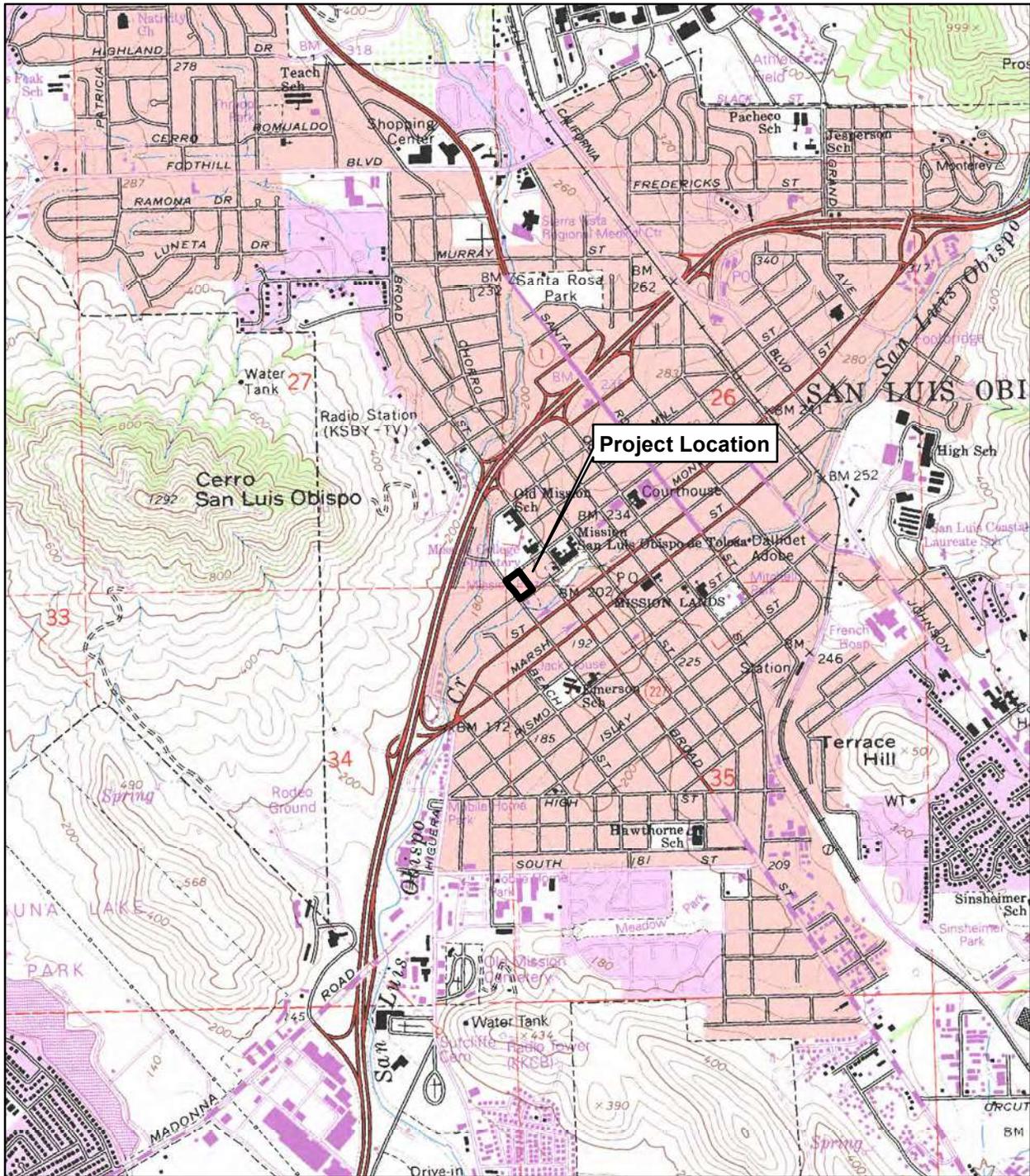
INTRODUCTION AND PROJECT DESCRIPTION

The City of San Luis Obispo (City) plans to build a new multilevel parking garage in the downtown area between Palm and Monterey streets at Nipomo Street. The proposed five-level structure will encompass approximately 1.1 acres at the site of an existing City-owned surface parking lot. The new structure's height, excluding elevator towers, is envisioned to be 33 feet from Monterey Street, 36 feet from Nipomo Street, and 44 feet from Palm Street; the site would be excavated to a maximum depth of 185 feet. Vehicle entry would be provided from either Palm or Nipomo Street; no vehicle access would be provided to Monterey Street, although walkways would connect to that corridor.

The City's goals for the new parking structure are to:

- Provide a minimum of 400 parking spaces;
- Accommodate cultural and/or residential uses on Monterey Street in front of the structure;
- Include a public use area at the corner of Nipomo and Monterey streets;
- Provide a direct pedestrian connection from the structure to Monterey Street;
- Preserve the large oak tree on site;
- Incorporate green technologies into the structure; and
- Consider the contextual sensitivity of surrounding properties (Rincon Consultants, Inc. 2010).

This project is located within Section 35 of Township 30 South, Range 12 East, as depicted on the U.S. Geological Survey 7.5-minute San Luis Obispo, California, topographic quadrangle (Figure 1-1). The project area is in the Downtown Historic District, and several properties on the City's Master List of Historic Resources (updated April 2010) and List of Contributing Historic Resources (updated April 2010) are adjacent on Monterey and Nipomo streets. The parking structure's height would be stepped back toward the center of the property to reduce the visual impact as seen from adjoining residential properties to the northeast, including the Master List Hays-Latimer Adobe at 642 Monterey Street. The adjacent residence at 614 Monterey Street, a Contributing Historic Resource, can be retained with the current design until the property along Monterey Street is redeveloped; however, much of the residence's rear yard would be devoted to the parking structure. Structures slated for demolition to accommodate the proposed parking structure include the residences at 633 and 633½ Palm Street and the rear garage at 610 Monterey Street (Figure 1-2). Ultimately, plans for development of the property may include demolition of the buildings at 610 and 614 Monterey.



U.S.G.S. 7.5 Minute
 Topographic Quadrangle
 San Luis Obispo, CA 1965
 Revised 1994

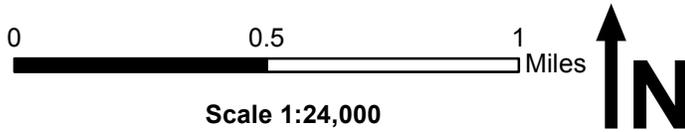


Figure 1-1 Study Location in central San Luis Obispo County, California.



Legend

 Study Area

0 50 100 Feet
Scale 1:800



Figure 1-2 Detail of building location at the corner of Palm and Nipomo streets.

Because the project entails ground disturbance and building demolition, and has the potential to affect significant archaeological deposits and architectural resources, it is subject to the cultural resource requirements of the California Environmental Quality Act (CEQA), which mandate that state and local agencies consider the impacts of their projects on the natural and cultural environment. In addition, the City of San Luis Obispo General Plan as well as the City's *Archaeological Resource Preservation Program Guidelines* and *Historic Preservation Program Guidelines* set forth provisions regarding the protection of cultural resources.

The first step in complying with these laws, regulations, and standards is the identification of cultural resources within the project area. To this end, Rincon Consultants retained Applied EarthWorks, Inc. (Æ) to perform a cultural resources investigation to determine if any archaeological sites or historic structures lie within project boundaries. The investigation included a records search at the Central Coast Information Center, archival and historical research, field survey of the property, predictive modeling of archaeological resources, evaluation of any potentially significant historic structures on the property, and assessment of potential impacts to the surrounding Downtown Historic District. Recommendations resulting from this study as well as additional compliance obligations and procedures essentially depend on the presence (or absence) of significant resources within the project area.

Æ completed the first phase of the study in January and February 2011. Following consultation with Rincon and the City on the initial results, Æ completed additional research in June 2011. Barry Price served as Project Manager and Principal in Charge of the study. Keith Warren served as the Project Archaeologist and Aubrie Morlet was the Architectural Historian. Damon Haydu assisted with the impact analysis and report preparation. Personnel qualifications are provided in Appendix A.

2 CULTURAL CONTEXT

2.1 PREHISTORIC CONTEXT

Recent studies regarding the prehistory and archaeology of the Central Coast have been conducted by Bertrando and Levulett (2004), Fitzgerald (2000), Glassow (1996), Jones et al. (1994), Jones and Waugh (1995), and Mikkelsen et al. (2000). *California Prehistory: Colonization, Culture and Complexity* (Jones and Klar 2007), the most recent comprehensive synthesis of California prehistory, addresses many questions relevant to the Central Coast.

Current evidence suggests that Native American use of the Central Coast region began during the late Pleistocene, prior to 9000 B.C. Local evidence from this earliest period of occupation is limited to isolated fluted projectile points discovered near Santa Margarita (Gibson 1995) and Nipomo (Mills et al. 2005), although more conclusive evidence comes from the surrounding region and the offshore Channel Islands (Erlandson 1994; Lebow et al. 2001). Fluted points may be as much as 12,000–13,000 years old, and speak to the great antiquity of Native land use in the area.

More conclusive evidence of human occupation has been found at a few coastal sites dating to the early Holocene, prior to 6500 B.C. The paucity of sites and materials from this time, termed the Paleocoastal Period by Moratto (1984), suggests that population density was low and settlements were impermanent. People used relatively simple technology to procure plant foods, shellfish, and a limited array of vertebrate species (Breschini and Haversat 1982; Carter 1941; Greenwood 1972; Jones and Waugh 1995; Jones et al. 1994; King 1990).

Well-developed shell middens, numerous milling implements, and fishing tools provide the evidence for more intensive and settled human occupation after 6500 B.C. The period is best defined by the predominance of handstones and milling slabs, indicating a reliance on hard seeds and other plant foods; flaked stone tools include leaf-shaped bifaces, oval bifacial knives, choppers, and scrapers. Hammerstones, fishing equipment (grooved net sinkers and bipointed gorges), and *Olivella* beads round out the artifact assemblage.

Cultural changes after 3500 B.C. are thought to be a response to environmental shifts, rising sea levels, and an increase in population. Diagnostic artifacts of this period include large side-notched, square stemmed, and contracting stemmed projectile points as well as *Olivella* beads. Although milling slabs and handstones continued as the primary plant processing tools, mortars and pestles were added to the artifact inventory, probably indicating systematic use of acorns (Glassow 1996; Glassow and Wilcoxon 1988). Trade and exchange also increased in importance, as evidenced by exotic shell beads and obsidian materials in midden deposits (Jones et al. 1994).

Prehistoric technology and economy became markedly more complex after 600 B.C. The artifact assemblage contains shell fishhooks and other fishing gear, saucer-type *Olivella* beads, and contracting stemmed projectile points. The use of handstones and milling slabs continued during this period, but pestles and mortars occur in greater proportions (Jones and Waugh 1995:121).

After A.D. 500 the *tomol*, or plank canoe, was developed on the coast (King 1990), and the bow and arrow was adopted in the interior. Subsistence practices emphasized fish and acorns, with greater use of seasonal resources and the first attempts at food storage (Glassow 1996; Glassow and Wilcoxon 1988; King 1990). Continuation of trade relationships is evident in the increased number and diversity of obsidian items and beads.

The period after A.D. 1000 was a time of emergent political complexity, development of social ranking, and the rapid development of craft specialization along the Santa Barbara Channel. Similar evidence is lacking, however, in San Luis Obispo County. In this area settlement appears to have shifted away from the coast, perhaps reflecting adaptations to warmer temperatures and changes in available resources on the coast (Jones et al. 1994). Artifact assemblages contain a mixture of earlier artifact types such as stemmed projectile points, milling slabs, handstones, bowl mortars, and *Olivella* beads. Moreover, the absence of imported obsidian after A.D. 1000 suggests a change in trade relationships that is likely associated with the shift in settlement patterns (Jones et al. 1994). Native populations in San Luis Obispo County may have decreased during this time as villages became temporary hunting camps and native inhabitants increasingly relied on terrestrial mammals for subsistence.

2.2 ETHNOGRAPHIC CONTEXT

San Luis Obispo is within the area historically occupied by the Obispeño Chumash, the northernmost of the Chumash people of California (Gibson 1991; Greenwood 1978; Kroeber 1976). The Obispeño occupied land from the Pacific coast east to the Coast Ranges and from the Santa Maria River north to approximately Point Estero. Chumash and Obispeño material culture, social organization, traditions and rituals, and cosmology have been described by many scholars including Blackburn (1975), Grant (1993), Greenwood (1978), Hudson and Blackburn (1982–1987), Hudson et al. (1978), Hudson and Underhay (1978), Johnson (1988), King (1990), Woodman et al. (1991).

Various lines of historical and archaeological evidence indicate that the general population density in the northern Chumash region was far less at the time of contact than in earlier prehistoric times, and the neophyte population at Mission San Luis Obispo was never as high as at the more southerly missions at Santa Barbara, Lompoc, and Santa Ynez (Greenwood 1978). The Indian neophyte population at Mission San Luis Obispo reached its peak of 919 in 1803, as most of the Obispeño abandoned their native villages and moved into the mission or its outposts.

2.3 GENERAL HISTORIC CONTEXT: BRIEF HISTORY OF SAN LUIS OBISPO

2.3.1 Spanish Incursion—The Mission Era (1772–1850)

The era of Chumash contact with Europeans began with the initial Spanish exploration of California in 1542. In 1769 the Portolá expedition traveled overland from San Diego to Monterey, journeying inland to Morro Bay, and passed through the project area again on their return voyage in 1770. Mission San Luis Obispo de Tolosa was founded in 1772, the first Spanish establishment in Chumash territory.

The first structures at the mission comprised a temporary church constructed of timber and tule, a granary, and a log-and-tule house for the soldiers of the mission guard. In 1773, Francisco Palóu

brought five families of Baja California Indians to the mission, and huts were erected to house them. A permanent church was built in 1774. Several fires necessitated construction of a new church, which was completed in 1793; that structure still stands today, dominating the landscape of Mission Plaza and Chorro Street (Figure 2-1). A cemetery is located outside of the eastern wall of the chapel. Scholars estimate that more than 2,600 Native Americans and a few Hispanics were buried in this cemetery before it was closed shortly after 1853. Additions to the eastern side of the church in 1893 and 1948 uncovered burials and Native American artifacts (Kocher 1972; Tognazzini 1993).

The mission vineyard, which was south of San Luis Obispo Creek, approximately 0.25 mile southeast of the current project area, was surrounded by a stone wall that roughly followed Garden, Buchon, and Santa Rosa streets. This was the second-largest vineyard in the California mission chain, consisting of 44.66 acres of grapes planted prior to 1800 (Bertrando and Bertrando 2003; Kocher 1972).

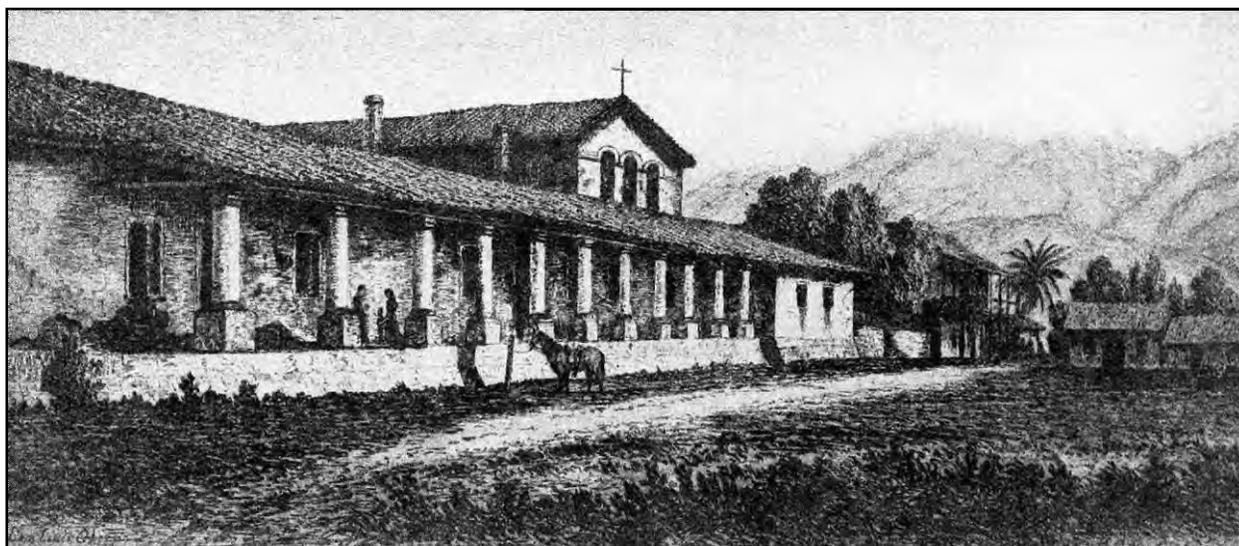


Figure 2-1 Drawing of Mission San Luis Obispo (1793).

Other construction projects completed in the 1790s in the vicinity of the current project site included living quarters for the padres, dwellings and workshops for five guards and their families, and the first grist mill (Kocher 1972; Webb 1952). The water-powered mill was reportedly located “further up Monterey Street from the large reservoir, to the left of the road and by the side of San Luis Creek” (*Monitor* 1938). Another source pinpoints its location on San Luis Obispo Creek “where the ‘White House’ now stands.” The White House, built in 1912, was located at 860 Higuera Street. When the remains of the mill were uncovered, one millstone purportedly was still lying by the creek and the old mill had a “fine stone floor” (Mission San Luis Obispo 1937).

In 1800, Father Martinez began an aggressive construction program that would complete and beautify the mission quadrangle. Construction over the following 11 years included a weaving room, a wall to enclose the quadrangle, more than 80 permanent mission Indian houses (measuring 20 feet by 17 feet) made of adobe and roofed with clay tiles, dormitories, a hospital, a second grist mill, additional reservoirs, a community kitchen, two granaries, and a corral

(Englehardt 1933; Kocher 1972; Mitchell 1930; *Monitor* 1938; Webb 1952). Because there are no known maps of the mission facilities, the exact location of these structures is unknown. However, construction and archaeological work in the city has uncovered pieces to this puzzle. Most recently, a portion of one of the mission reservoirs was uncovered on Chorro Street, between Palm and Mill streets, during trenching for a sewer line lateral. A portion of the mission orchard wall was uncovered near the Broad Street northbound on-ramp to U.S. Highway 101. One of the Native American dormitories may have been uncovered north of the project site across Palm Street (Parker 2005). The mission Indian housing was described as two low rows of buildings along both sides of Chorro Street. One row of these dwellings formed the outer wall of the cemetery, and the dwellings are purported to have remained in place until 1875. A simple adobe wall with a gateway to the cemetery connected this row of Indian houses with the vestibule, or portico, of the church building (*Monitor* 1938). When the Quintana Building (now the Blackstone Hotel) was constructed in 1876, remains that have been identified as mission-era soap and tallow vats were reportedly uncovered near the entrance of 986 Chorro Street (Webb 1952).

In 1822 California became a Mexican Territory, and the mission lands gradually became private ranchos via new Mexican land grants. In 1834, the proclamation for secularization was issued, and the mission was essentially disbanded. By that time, “missionization,” disease, and destruction of the native subsistence base had virtually eliminated the Chumash and their culture. By 1838, only 170 Native Americans, including Chumash, Salinans, and Yokuts remained at the mission (Greenwood 1978).

2.3.2 Early Settlement (1850–1875)

When California achieved statehood in 1850, immigrants were mainly interested in the riches to be found in the gold fields of the Sierra Nevada. Newcomers were able to find some semblance of the culture they left behind in the northern part of the state and the San Francisco Bay area, but Southern California was seen as a wild, untamed country full of lawlessness. As a result, the population of the newly formed San Luis Obispo County grew slowly. The 1850 census lists 336 residents, but ethnicity is not recorded. However, over 230 were born in California, suggesting Native American and/or Mexican heritage. Fifty-five were born in Mexico, 20 were born in America, and 26 were European immigrants. The population makeup must have remained unchanged through most of that decade, because in 1856, Henry Miller observed about 150 houses, inhabited principally by Native Americans and Mexicans (Miller 1856).

A cholera epidemic in the 1850s decimated the Native American population in the region. At least 70 Native Americans are said to have died from the disease, and many who were not affected fled the area and were not seen again. The effect of this disaster is noticeable in the 1860 census, which lists only 162 Indians within a town population of 1,808 residents.

Disaster hit the county from 1862 to 1864 when great droughts caused the death of hundreds of thousands of sheep and cattle, bankrupting many of the Hispanic families who had acquired large ranchos. These families were forced to sell out to Euro-American entrepreneurs who were arriving in the area (Krieger 1988). Those new arrivals spurred development within the sleepy town. With the influx of Euro-American landholders, growth came rapidly, and by 1868 housing demand far exceeded supply.

The Roman Catholic Church held titles to large sections of land such as the mission orchard and vineyard. By the 1870s, the demand for town lots was overwhelming. Seeing an opportunity to finance their extensive building repair program, the Mission Parish began selling the Mission vineyard lands for subdivision. Robert R. Harris's 1874 map depicts how the area was platted after sale of the mission lands. By 1875, the entire vineyard had been sold (Kocher 1972).

2.3.3 Growth of Industry and Commerce (1875–1900)

In 1875, 2,500 residents were concentrated in a 4-square-mile area, with the outskirts of the town sparsely settled. The City waterworks maintained a 2-mile open flume that carried water from springs above the town to a stone and cement reservoir. This water was then distributed through 5 miles of pipes that ran below all principal streets. The architecture was described as “rather primitive but of late marked improvement” (Cooper 1875:17). There were more buildings of a more permanent nature, and many who had been renting were now building. Rental housing was in demand, and there was a limited supply; these had “reasonable rents at \$10 to \$25/month according to size and location” (Cooper 1875). The city waterworks serviced residences near the town center and those elsewhere were supplied from individual wells. In 1875, Paulson reported four hotels, six livery stables, and one paper—the *Weekly Tribune*. He told how the city “commands trade up and down the coast and at least 100 miles to the interior” (Paulson 1875).

Access to the outside world was through the Coast Line Stage. This company carried U.S. mail for Wells Fargo and Company to points north and south of the city. Passenger coaches also ran from the city to the harbor, and a tri-weekly stage between the city and the town of Cambria provided residents with a connection to the communities of Morro, Old Creek, and Cayucos. Additionally, a telegraph from San Francisco to Santa Barbara ran through San Luis Obispo, with an additional line from the city to the port (Cooper 1875).

The narrow-gauge Pacific Coast Railway from Port Harford to Los Alamos, which first ran in 1876, made San Luis Obispo the commercial center of the region and provided access for passenger steamer service. The City of San Luis Obispo was incorporated on March 20, 1876, and a codified system of ordinances was prepared and enacted. At the time of the 1880 census, there were 2,500 residents in the city. Just 3 years later, that number was reported to have increased to 3,000 (Angel 1883).

2.3.4 Population Growth and Modernization (1900–1945)

The 1900 United States census enumerated just over 3,000 residents in the City of San Luis Obispo. Several events spurred growth of the city in the early twentieth century. By 1901 the city was served by the Pacific Coast Railway and mainline Southern Pacific (Krieger 1988). The completion of a rail line that allowed travel and shipment of goods to the south meant greater opportunities for selling and buying of commodities. The establishment of California Polytechnic State University (Cal Poly) in 1903 as a vocational school on 281 acres also was a significant draw for the city.

Between 1909 and 1926, many changes related to the increase in the ownership of automobiles and the ease of travel were taking place in the city. When the new state highway was opened for travel in 1915, San Luis Obispo was a prime location for travelers to rest on the long trip from San Francisco to Los Angeles. Commercial ventures catering to travelers, including hotels,

motels, restaurants, and service stations, cropped up around the city (City of San Luis Obispo 1983; Krieger 1988; Palmer et al. 2001). These services were primarily located along Monterey and Higuera streets.

By the 1930 Census, the city's population had surpassed 8,300. Additional growth occurred at the end of World War II, when military installations established in response to the war stimulated the local economy. Between 1940 and 1941, the U.S. Army converted Camp Merriam, a 2,000-acre National Guard base founded in 1928, to an infantry and artillery training camp known as Camp San Luis Obispo. Many of those soldiers, who remembered the mild climate and gentle hills of the Central Coast, returned permanently to San Luis Obispo after the war (Krieger 1988:102–104).

2.3.5 Downtown Growth (1945–present)

Many of the returning soldiers were instrumental in the modernization of San Luis Obispo in the second half of the twentieth century. Joe Navoni and a group of veterans took over the City Garbage Company and bought trucks that could handle dumpsters. Archie Stinson, who used the GI Bill to study at Cal Poly, started a poultry processing plant that soon supplied most stores in San Luis Obispo and Santa Barbara counties. On December 2, 1946, Southwest Airlines established airmail and passenger service out of the small county airport on the edge of town (McKeen 1988). In 1958, Alex Madonna and his wife Phyllis built the landmark Madonna Inn.

The influx of new commerce meant that the landscape of downtown was changing. Older buildings, including many residences, were demolished to make way for more modern structures and parking lots. City landmarks such as the Clock Tower at the intersection of Chorro and Higuera streets and the Mission Mill guesthouse were demolished in the 1950s and 1960s. Many of the remaining adobes were also lost during this period.

Citizens, government, and downtown businesses spent a considerable amount of the 1950s arguing about what to do about San Luis Obispo Creek. Many citizens believed that the creek, then a trash-filled eyesore, could be cleaned up and a lovely plaza could be developed in front of the mission. Downtown businessmen, hungry for parking spaces for their customers, thought the creek was a waste of space and encouraged the city to pave it over (McKeen 1988). The issue would not be decided until 1968, when voters approved the closing of Monterey Street and creation of the plaza that exists there today (McKeen 1988; Tritenbach 1989).

Even though business leaders lost out on parking spaces at the mission, many other city parking lots were established in the downtown core. These include the Court Street lot (which has recently been redeveloped), the Kozak lot at the corner of Palm and Morro streets, and the parking lot on the current project site.

3 METHODS

3.1 ARCHIVAL RESEARCH

Æ obtained a records search for downtown San Luis Obispo from the Central Coast Information Center of the California Historical Resources Information System at the University of California, Santa Barbara in January 2011. The records search identified previously recorded cultural resources and the survey coverage of prior investigations within and adjacent to the current project area (Appendix B). Sources examined during the records search included maps pinpointing cultural resources locations, survey coverage maps, and site record and report files. The State Historic Property Data Files, National Register of Historic Places, National Register of Determined Eligible Properties, California Points of Historic Interest, California Office of Historic Preservation Archaeological Determinations of Eligibility, and the California Department of Transportation State and Local Bridge Surveys were also analyzed. Additionally, Æ has a large in-house library of sources which include city directories, Great Registers, various historical maps, and newspapers.

3.2 ARCHAEOLOGICAL RESOURCES SURVEY

Æ performed a pedestrian survey of the project area on January 18, 2011. The project parcel was surveyed on foot, and the surrounding environment and structures also were examined. Sanborn Fire Insurance maps were consulted in the field to help identify areas of historic land use. Digital photographs were taken with a Cannon Powershot A1100 IS.

3.3 ARCHITECTURAL RESOURCES SURVEY

Æ Architectural Historian Aubrie Morlet conducted the initial architectural resources survey of the project site on January 21, 2011; on June 7, 2011, she conducted a follow-up survey. These studies included archival research, building documentation, and an evaluation of structures within the project area. Sources reviewed in support of the evaluation included Applications for San Luis Obispo Building Permits (1906–1937), MS034, Special Collections, Robert E. Kennedy Library, California Polytechnic State University, San Luis Obispo; City of San Luis Obispo Building Permits; City of San Luis Obispo Community Development Files on Historical Properties; U.S. Census Records and Index to Registration Affidavits; and city directories on file, History Room, San Luis Obispo City-County Library.

The buildings were recorded on a California Department of Parks and Recreation Primary Record (523A) and Building, Structure, and Object Record (523B). These forms describe each building's features and summarize the evaluations of significance. Photographs were taken with a Sony DSC-H55 digital camera. Completed forms and photograph records are provided in Appendix C of this report.

4 FINDINGS

4.1 RECORDS SEARCH

The records search revealed that 18 previous studies have been conducted within the general project area and five archaeological sites have been identified. A search of the inventories of the State Historic Property Data Files, National Register of Historic Places, National Register of Determined Eligible Properties, California Historical Landmarks, California Points of Historic Interest, California OHP Archaeological Determinations of Eligibility and the California Department of Transportation State and Local Bridge Surveys yielded eight property evaluations within the search area.

Three archaeological sites have been identified previously within or immediately adjacent to the current project area. CA-SLO-1890/H was recorded in 1998 following investigations at 963 Broad Street, the location of a wood frame house built between 1886 and 1891. The site consisted of adobe remains, cobblestone foundations, and tile fragments. Numerous post-1880 bone, glass, and ceramics artifacts were also noted (Singer 1998). CA-SLO-2206H is the site of the 1876 Academy of the Immaculate Heart, located on Block 36, immediately north of the current project area. Construction monitoring in 2002 revealed trash pits, a privy, a well, sheet refuse, and structural remains associated with the convent (Parker 2002). CA-SLO-2341H covered a city-wide water line installation project undertaken in 2003. The project was largely in the street right-of-way and much of the project area was subject to prior disturbances. A black powder flask (1790–1860) was discovered at the intersection of Palm and Nipomo streets; however, no other archaeological resources were identified adjacent to the current project area (Rowe 2003).

In December 1996, at the request of the City of San Luis Obispo, Bertrando and Bertrando Research Consultants prepared *Cultural Resource Investigation of the 906 Palm Street, Palm/Nipomo Parking Lot, San Luis Obispo, CA*. The project area consisted of approximately 0.5 acre (Lot 1) at the corner of Palm and Nipomo and is encompassed by the current project area. Background research demonstrated that the block was occupied as early as 1855 when Roberto Villa owned an adobe on Lot 2 at the corner of Monterey and Nipomo streets (Bertrando and Bertrando 1996:5). The Bertrandos conducted a pedestrian survey of the area, which was largely inconclusive. Approximately 90 percent of the parcel was covered in asphalt, concrete, standing structures, or dense cover. Marine shellfish was observed and historical material was noted as abundant on the surface but appeared to be associated with recently removed structures.

After the removal of asphalt and concrete in May 1997, the parcel was reinspected by Bertrando and Bertrando (1997a). The inspection found that disturbances did not generally penetrate deeper than 6 inches below the exposed surface. Historical material was noted in situ in the upper 12 inches and a generally intact transition to subsoil was noted at around 12 inches deep (Bertrando and Bertrando 1997a). Because of the potential for archaeological remains to be preserved in the area, the Bertrandos recommended that construction be halted in the event that

historical remains were exposed during construction until the cultural material could be assessed by a qualified archaeologist.

In April 1999, trenching for a water line took place on the property. The trenching exposed a rock foundation that subsequently was inspected by the Bertrandos. The rock foundation, constructed of dacite, appeared to be associated with the circa 1905 house removed in 1996 (Bertrando and Bertrando 1997b). An intensive surface survey, also undertaken after the ground had been cleared, identified additional historical artifacts, including glass, ceramics, nails, shell, and *tejas* (ceramic roof tiles). These were thought to be associated with twentieth century structures—a residence (1905–1996) and welding shop (1926–1996).

4.2 SITE-SPECIFIC CONTEXT

Æ completed limited historical research to determine the specific history of the proposed project area, including the sequence of prior development, in order to understand the historic context of the area and develop a predictive model of archeological resources. Proposed project plans were overlaid on the Sanborn fire insurance maps and the area of potential impact was assessed. The results of that property-specific research are described below.

Properties lining Monterey and Higuera streets between Nipomo and Santa Rosa streets were rapidly developed in the 1860s for both commercial and residential purposes. Residential development, often dependent on transportation, grew out of this core part of town but remained close to local businesses. An act passed by the California State Legislature on March 23, 1868 gave the Common Council of the Town of San Luis Obispo the right to sell and confirm ownership of land. The formal survey of town lands was conducted by Robert R. Harris and Hubert C. Ward in 1870. This survey provided the foundation for individual land petitions. Most Petitions for Grant included a sketch map that was elaborated upon by the petitioner. Many early petitions were denied by the Common Council due to lack of improvements or evidence of settlement. As such, most of the petitions beginning in 1870 stated when the property was first settled and the value of improvements.

The Harris and Ward Map established Block 9, bound by Palm, Broad, Monterey, and Nipomo streets, divided into six lots. The owners are identified as: Lot 1, illegible; Lot 2, Roberto Villa; Lot 3, S. A. Pollard; Lot 4, Dr. W. W. Hays; Lot 5, J. Stannseich; and Lot 6, Ramona Wilson. The current project area encompasses Lots 1 and 2. With the exception of Lots 1 and 2, the properties stretch from Monterey Street to Palm Street.

Roberto Villa presented his petition for Lot 2 in 1870. Villa's accompanying sketch map (Figure 4-1) shows an adobe dwelling which he valued at \$200. Villa indicated that he settled on the land in 1855, making his the earliest recorded occupation of Block 9 (Bertrando and Bertrando 1996:np). Villa's property and a solitary structure also appear on an 1859 petition for land that also depicts a fence on Lot 1 (Bertrando and Bertrando 1996:5).

Other petitions for Grant in Block 9 revealed that Samuel A. Pollard, Justice of the Peace, settled on Lot 3 in 1868 and made improvements valued at \$2,000 (Bertrando and Bertrando 1996:5). Ramona Wilson, widow of Captain John Wilson, settled Lot 6 in 1855, with improvements valued at \$2,000.

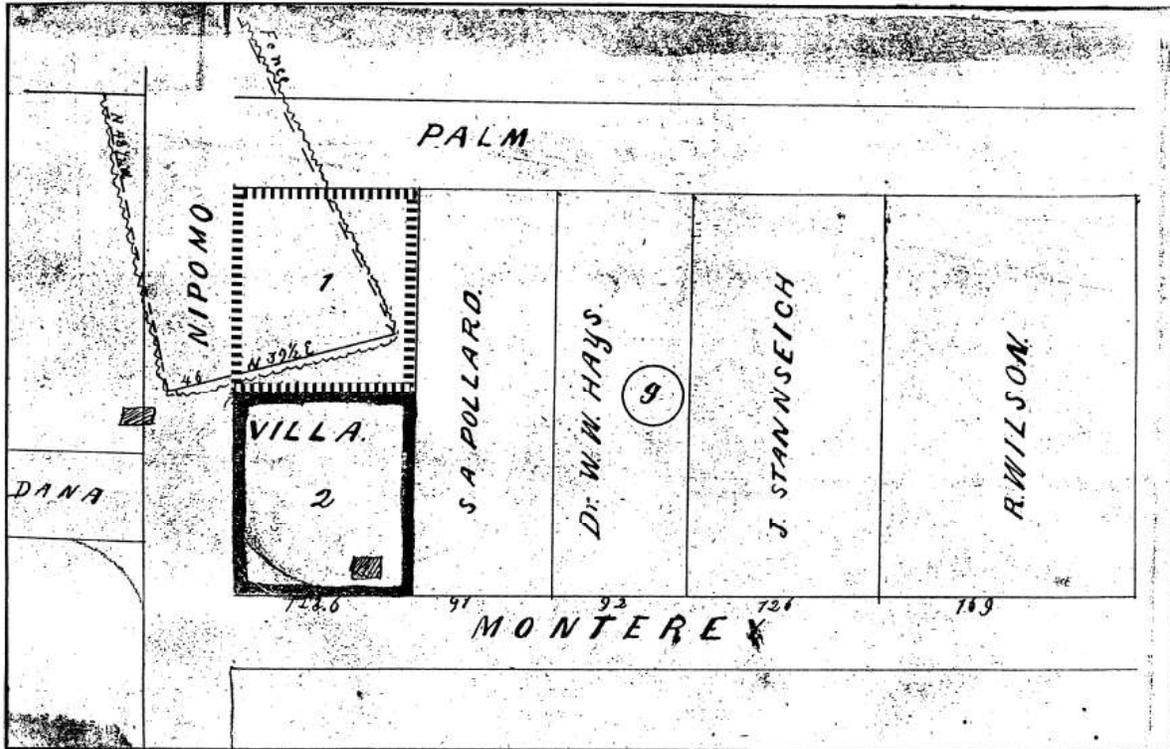


Figure 4-1 Sketch map provided with the Petition to Grant for Block 9, Lot 2 filed on July 19, 1870; Roberto Villa used the 1870 Harris Map as justification for ownership.

Although his petition only read “valuable improvements,” San Luis Obispo’s first resident physician, Dr. W. W. Hays, was granted deed to Lot 4, where he settled in an existing adobe dwelling in the late 1860s. John Stannseich does not indicate a date of settlement but does value land improvements at \$1,000. No information was located in the petitions regarding Lot 1.

By the time R. R. Harris prepared his Map of San Luis Obispo County in 1874, the project area had been divided into four parcels. No structures are depicted, but Villa owns the eastern half of Lot 2 at 614 Monterey. Judge McDowell K. Venable (San Luis Obispo County Judge from 1871 to 1879) purchased Lot 3 from Pollard and the western half of Lot 2 (610 Monterey) from Villa. This map indicates that Lot 1 was owned by Brizzolara. No other ownership changes had occurred.

During the last quarter of the nineteenth century, the project site experienced little change while Monterey Street, to the east, continued to develop with commercial and residential infill. Several hotels, small businesses, and individual dwellings were located on both the north and south sides of the street. The San Luis Obispo Mission Church remained on the north side of Monterey between Broad and Chorro streets, with secular development on the south. Within the project area, dwellings at 610, 614, and 630 Monterey Street exhibited small additions to the rears of the buildings. The 1886, 1888, and 1891 Sanborn Maps show the three residences within the project area, including an outhouse at the rear of the adobe on Lot 3. James Moore operated a dyeing and cleaning business in a shed at 614 Monterey Street. Three small ancillary buildings, one a shed, were present at 610 Monterey Street. All of these buildings are no longer present on the project site.

Shortly after the turn of the twentieth century, the city began improving streets by grading roads and filling in low places with gravel (Curry 1968). Higuera Street was widened to 70 feet between Nipomo and Osos streets. New development throughout the city followed these improvements. Within the project area, the 1903 Sanborn map depicts a house moved to Lot 1 between 1891 and 1903 and the 1909 map includes an associated outbuilding which may be an outhouse or shed. During this same time, James Moore moved his dyeing and cleaning business from 614 Monterey Street to the enlarged residence at 610 Monterey Street. Moore would continue to operate his business at this location until after 1925. Between 1903 and 1905 a single family dwelling was constructed at 976 Nipomo, on Palm Street. The property, Lot 1 of Block 9, had remained in the Brizzolara name since 1874. Widow Marial Brizzolara and her son Joe Ghigliotti, Chief of the City of San Luis Obispo Fire Department, resided on the property at least through 1936. By 1926 the outbuildings on Lot 2 are no longer extant. and by 1957 the house on Lot 1 was moved to the south of the lot and a welding shop was placed at the original location of the house.

During the 1930s, the project area began to experience a greater physical change. In 1930, the Harmony Valley Creamery Association opened a processing plant on the corner of Nipomo and Dana streets. This plant provided fresh milk, butter, and cheese to residents of the city. By 1938, the Brizzolara dwelling had been moved south, closer to Monterey Street, and converted into a duplex (972-970 Nipomo Street). A new business, a welding shop, was added to the property on the previous location of the dwelling. The two dwellings at 610 and 614 Monterey Street were demolished. Louis R. Heyd, an engineer for the Union Oil Company, built a new dwelling at 614 Monterey Street in 1935. Heyd's family had owned the property since 1900; in 1933 it was occupied by the son and his family. Klien J. Williams, a creamery worker, constructed a new dwelling across the street from the creamery at 610 Monterey Street in 1937. Both Heyd and Williams remained on the property beyond 1975.

New surface parking lots established in the 1960s and 70s frequently replaced older buildings and historic uses of the properties. Within the project area, the weather-boarded adobe dwelling at 630 Monterey Street was demolished to clear space for the parking lot that exists today. More recently, the Brizzolara dwelling at 970 Nipomo was relocated to 576 Buchon Street and the old welding shop was demolished.

4.3 ADOBE CONSTRUCTION IN SAN LUIS OBISPO

Adobe construction had its origins in the Spanish-Mission period and is commonly seen throughout the California Central Coast. Founded in 1772, Mission San Luis Obispo de Tolosa is located on Monterey Street between Broad and Chorro. The current church and convento wing were built in 1794. The two gable-front and side-gable buildings were simple in style with thick, whitewashed adobe walls and straight barrel mission tile on the roofs. The portico on the church front and colonnades on the wing shaded the entrances to the buildings in traditional fashion.

Following Mexican independence from Spain in 1821, the San Luis Obispo Mission was secularized and sold to Captain John Wilson. The military, followed by the county, used the mission buildings for civic purposes such as a jail and courthouse. In 1855 the U.S. Land Commission returned the mission property to the Catholic Church. By that time a thriving community had become established, fanning out from the central mission property. The Sauer

Adobe, Walter Murray Adobe, and the Overland Stage Company Adobe were located around the mission, along with numerous other residential and commercial buildings (Figure 4-2). Monterey Street, which ran past the front of the mission, was one of four main streets during the early town development.



Figure 4-2 Old Overland Stage Company Adobe located at Dana and Nipomo; this building was demolished for construction of the Harmony Valley Creamery buildings by 1930.

In 1886, the French Hotel, Swiss American Hotel, two boardinghouses, several small businesses, and 16 residential dwellings were located on Monterey Street between Chorro and Nipomo (Figure 4-3). During the 1880s, several adobe buildings, such as the Sauer Adobe and two dwellings at 642 and 630 Monterey, all built during the 1860s, were covered with wood siding. It is likely that many other adobe buildings existed but were demolished during the first half of the twentieth century for new development downtown. Only a handful of examples remain today outside the mission property.

Secularization had taken a toll on the adobe mission buildings and in 1872 the church replaced the tile roof shingles with wood in hopes of slowing deterioration. During the early 1880s, the convento wing colonnades and the church front portico/belfry were removed due to extensive damage. Soon after, the exterior adobe walls were covered with wood siding and a New England style belfry with steeple was added, in keeping with the tastes of the time. An additional wing was added to the east facade of the church in 1893. By the start of the twentieth century, the mission had achieved an interesting Victorian-influenced appearance (Figure 4-4).

The Mission San Luis Obispo de Tolosa underwent a restoration project in 1933–1934. The project, managed by Father John Harnett, returned the property to the earlier mission appearance (Figure 4-5). This included removal of the steeple, re-exposing the adobe bricks, reconstruction of the portico/belfry and colonnade, and new roof tiles. The restoration was the culmination of a 10-year fundraising effort following a fire in the sacristy in 1920. Public outreach is a part of any fundraising effort, and those living and working near the mission would have been especially aware of the proposed project. The actual restoration activity would have been very visible and



Figure 4-3 Monterey Street with mission church, French Hotel, and Fulton Market in the 1870s.



Figure 4-4 Mission church and convento wing after the American-influenced alterations in the 1880s.



Figure 4-5 Restored Mission San Luis Obispo de Tolosa.

may have even created a renewed interest in adobe construction. Within 2 years, a new adobe dwelling was built at 614 Monterey Street. At this time adobe was not a frequently utilized material; however, a renewed interest in adobe building occurred during the mid to late 1930s, most notably in projects carried out by the Depression-era Works Progress Administration (WPA). The New Deal program funded construction of adobe homes in residential tracts for families relocating from the dustbowl. These projects appear to have occurred mostly in the southwestern United States, including southern California. The WPA built the County Courthouse and other projects in San Luis Obispo, but it does not appear that the program undertook any adobe residential projects on the Central Coast.

4.4 ARCHAEOLOGICAL RESOURCES SURVEY

The study area is highly developed with residential structures, landscaped islands, sidewalks, curbs, and paved parking lots. Little exposed ground surface was present. However, along the Monterey Street boundary of the project parcel, several exposed strips of native soil contained historic-period debris, including glass and ceramic fragments, ferrous metal items, and shell. In addition, these same constituents were observed in the yards of adjacent properties along Monterey Street. Surface observations were insufficient to determine whether these constituents represent intact archaeological deposits; however, the surrounding landform along the Monterey Street portion of the project area appears to be fairly intact. Background research shows that the property within the project area was occupied as least as early as 1855, when Roberto Villa owned land at the corner of Monterey and Nipomo streets. Historical maps including the Sanborn fire insurance maps demonstrate the potential for backyard artifact-filled features such as outhouses, one of which is clearly noted on the 1886 map. Previous investigations noted intact archaeological features in the general area, and overall site integrity is anticipated to be good. Since the area was utilized as early as the mid-nineteenth century, intact historical deposits are anticipated and could include sheet midden, refuse deposits, structural remains (i.e., foundations, walls, footings, piers, builders trenches and cellars), hollow or pit features (trash pits, privies, wells, cisterns, utility vaults) and fill layers. Resources associated with the mission era may include residences, agricultural features such as granaries, holding pens, threshing floors, aqueducts, or refuse deposits.

4.5 ARCHITECTURAL RESOURCES SURVEY

As illustrated in Figure 4-6, in 1950 Lot 3 contained 633 and 633½ Palm Street and 630, 632, and 630½ Monterey Street. This map reflects all of the buildings that once stood on the property. The majority of the lot is now utilized for parking and only 633 and 633½ Palm Street remain.

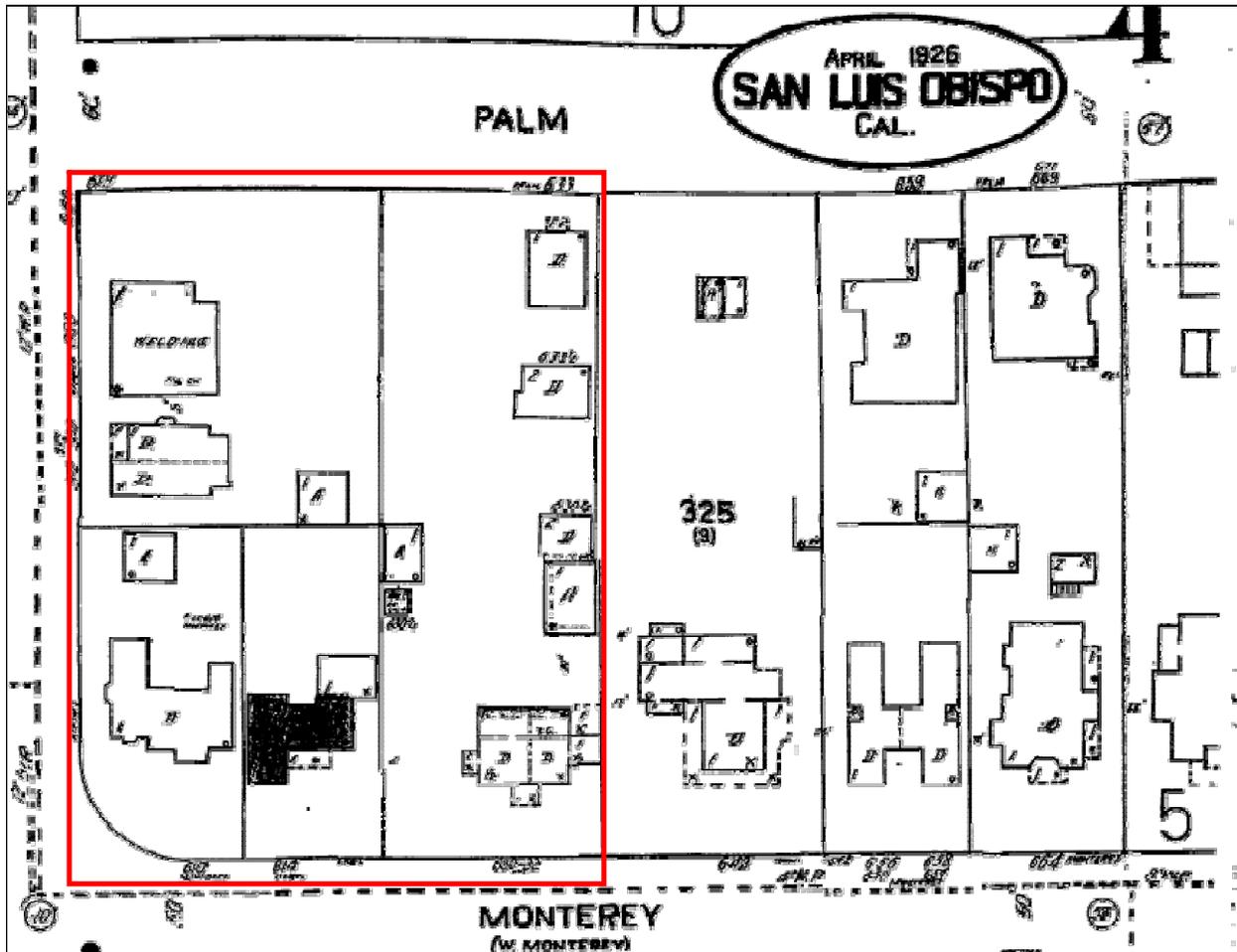


Figure 4-6 Project area shown on the 1950 Sanborn map, which is an update from the 1926 Sanborn map.

Æ identified and recorded four residential buildings in the study area, at 633 and 633½ Palm Street, 610 Monterey Street, and 614 Monterey Street.

4.5.1 633 and 633½ Palm Street

The wood constructed residence at 633 Palm Street rests on a concrete foundation with a rectangular footprint. The walls are clad with slender wood boards. The medium-pitched gable-front roof is covered with composition shingles and the eaves are open. Wood slat vents are present in the gable peak. Three steps lead to the concrete stoop that is shaded by the dropped, gable-front porch. Fenestration includes wood sash transomed windows on the north facade, wood sash windows on the east and west facades, and a wood-framed glass door at the main entrance. A concrete driveway leads to the building at the rear of the property, 633½ Palm Street. The two-story wood constructed building at 633½ Palm Street rests on a concrete foundation



Figure 4-7 Residence at 633 Palm Street.



Figure 4-8 Residence at 633½ Palm Street.

with a rectangular footprint and presents a front overhang. The walls are clad with wide beveled wood boards on most of the north facade and plaster on all remaining facades. The gable roof is covered with composition shingles and the eaves are open. Rectangular vents are present in the

gable end. Wood sash windows are mixed with newer metal windows and large multiple-paned fixed windows. Wood constructed stairs leading to the second story landing are shaded by a dropped gable roof.

According to the building permit, construction on 633 Palm Street started in December 1927. This building does not appear significantly altered. A building permit was filed for the construction of 633½ Palm Street in December 1947. The building is described as a residence with garage. Based on visual inspection, it appears that the first story of the building was a garage for both buildings and the living space was on the second story. At an unknown time, the first story was converted into living space with a small storage area concealed by wood board doors on the west end. A permit was filed in May 1956 for unspecified alterations and repairs. Based on materials utilized, it is possible that the first story conversion occurred at that time. In 2003, 633 Palm was reroofed.

4.5.2 610 Monterey Street

The wood-framed building at 610 Monterey Street (Figure 4-9) rests on a concrete foundation with an irregular footprint. The walls are clad with plaster. The low-pitched cross-hipped roof is covered with composition shingles and the eaves are boxed. Fenestration includes a bay window on the south and west facades, wood sash windows, metal sliding windows on the northwest corner, and a solid wood door on the south facade. Two chimneys are present on the west facade; a tapered chimney is attached on the south end and a square chimney pierces the roof slope. A two-car garage is located to the north of the dwelling with a concrete drive leading to Nipomo Street. The garage is clad with plaster and the hipped roof is covered with composition shingles. Two single wood doors open into the garage.



Figure 4-9 Residence at 610 Monterey Street.

According to the San Luis Obispo County Assessor's Office, the building was constructed in 1937. City directories do not list the property prior to 1938. A building permit was issued on October 3, 1957 to roof the existing porch. No original building permit was located. It also appears that a single metal sliding window at the rear of the west facade was either replaced or added at an unknown time. No other alterations are visible.

4.5.3 614 Monterey Street (Heyd Property)

The adobe brick building (Figure 4-10) rests on a concrete foundation with an irregular footprint. The walls are 12 inches thick and the exterior is painted. The low-pitched cross-hipped roof is covered with wood shingles and the eaves are closed. Fenestration includes recessed wood sash windows on all facades and a solid wood door on the south facade. The two front windows on either side of the south facade door are square, while the windows on the east and west facades are rectangular. Two chimneys are present: a tapered chimney is attached on the southeast corner and a rectangular chimney pierces the roof ridge near the cross joint. A single-car garage is attached to the north facade on the east side. This wood addition is clad with stucco. A single wood sash window is present on the north facade of the garage. Important landscape features include a large live oak tree in the front yard, brick steps and pathway from the sidewalk on Monterey Street to the front porch stoop, and the adobe retaining wall along the east side of the driveway.



Figure 4-10 Adobe residence at 614 Monterey Street.

According to the San Luis Obispo County Assessor's Office, the building was constructed in 1939. Early assessor records are often estimated dates of construction, and City directories revealed that the family was living in the dwelling consistently from 1936, making it likely that

the construction year was 1935. No original building permit or subsequent permits were located. The property does appear to have an attached garage addition completed before 1950. No other alterations are visible.

4.5.4 Downtown Historic District

In 1987, the City of San Luis Obispo designated three historic districts within the urban area. In addition to the districts, the City maintains a Master List of Historic Resources, which identifies buildings that are considered historically significant on their own merits, and a List of Contributing Historic Resources, which identifies structures that contribute to the significance of designated historic districts, although they may not be individually significant. The districts and initial historic resources lists were created as a result of a 1981 survey performed by a citizens' committee appointed by the City Council. The property forms associated with the survey are on file at the Community Development Department.

The project area is partially located within the Downtown Historic District, which stretches east from Highway 101 and Dana Street to just beyond Osos Street and runs north from Marsh Street to Palm Street. Many of the city's most important historic buildings are found in the district, which includes an eclectic mixture of architectural styles from the Mission San Luis Obispo de Tolosa to the Streamline Moderne Fremont Theater. While the majority of the buildings within the Downtown District are used commercially, quite a few are still residential properties, especially west of Broad Street. Two Master List properties and two contributing properties lie within or adjacent to the current project area (Table 4-1). The single-story vernacular residence with a detached garage at 610 Monterey Street is a contributing property built in 1937 by Klien Williams. The single-story, mission-influenced vernacular residence at 614 Monterey Street was built by Louis R. Heyd in 1935 is also is a contributing property. Both lie within the current project area. The Hays-Latimer Adobe, a weather-boarded single-story adobe residence, is a Master List property built in 1860. The multistory Harmony Creamery is also a Master List property. Built in 1930 by the Harmony Valley Creamer Association, it is Spanish Colonial Revival in style. Both are adjacent to the current project.

**Table 4-1
Designated Historic Buildings Within and Adjacent to the
Palm-Nipomo Parking Structure Project Site**

Address	Local Designation	Location Relative to Project Site
610 Monterey Street	Contributing property to Downtown Historic District	Within
614 Monterey Street (Heyd Property)	Contributing property to Downtown Historic District	Within
638-642 Monterey Street (Hays-Latimer Adobe)	On Master List of Historic Resources, Downtown Historic District	Adjacent
991 Nipomo Street (Harmony Creamery)	On Master List of Historic Resources, Downtown Historic District	Adjacent

4.6 RESOURCE EVALUATIONS

4.6.1 Archaeological Resources

A small amount of historic-period debris was observed in exposed native soils along the Monterey Street portion of the project site. However, due to the developed status of the project area, there was little exposed ground surface to examine. Historic documents suggest that this area of the city was part of the mission lands prior to secularization and was developed as early as 1855. Sanborn maps depict residences and several privies within the project footprint. A previous study by Bertrando and Bertrando (1999) uncovered historic-period debris in unconsolidated fill and the remains of a foundation or wall. These items were related to a house or welding shop that faced Nipomo Street as early as 1903. Thus, it is likely that additional remains related to mission and post-mission occupation of the site are present.

Historic documents and previous similar work have shown that subsurface archaeological deposits exist throughout the city, including areas adjacent to the current project. Trenches excavated on Monterey Street directly east of the subject property revealed a large archaeological deposit. Archaeological investigations for the Court Street Development Project parking garage, approximately 1/8-mile east, revealed that a mission-era midden containing significant Native American deposits was present along a long stretch of Palm Street on the side opposite the mission; it is unclear whether that deposit extends into the current project area. Because only six structures have ever existed on the project site, it is quite likely that subsurface cultural remains are intact. Any intact features likely would qualify as historical resources under CEQA, and would sustain significant impacts from the proposed demolition and construction.

4.6.2 Architectural Resources

Æ evaluated the buildings within the project site for historical significance by applying the criteria of the California Register of Historical Resources (CRHR) and the City of San Luis Obispo Evaluation Criteria for Historic Resource Listing with reference to the context presented in Chapter 2. Whereas the CRHR criteria provide the general standards of significance, the context delineates the specific themes (i.e., currents within the flow of history) to which a resource may be related. Significance is based on how well the subject resource represents one or more of these themes based on its specific history and the people associated with the resource, as well as its inherent qualities (i.e., architecture and potential to yield information about the past).

4.6.3 California Register of Historical Resources Criteria

A resource is eligible for the California Register if it meets the criteria defined in Section 5024.1 of the California Public Resources Code:

- (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.

- (4) Has yielded, or may be likely to yield, information important in prehistory or history [California Code of Regulations, Title 14, Chapter 3].

The site must also, except in rare circumstance, be 50 years old or older. The CRHR criteria parallel those of the National Register of Historic Places, which requires that the resource retain enough of its historic character to convey the reason for its significance. Per the National Park Service’s guidance, integrity is assessed by examining seven aspects of integrity, which are defined as follows:

Location is the place where the historic property was constructed or the place where the historic event occurred. . . .

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

Setting is the physical environment of a historic property. . . .

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. . . .

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

Feeling is a property’s expression of the aesthetic or historic sense of a particular period of time. . . .

Association is the direct link between an important historic event or person and a historic property. . . [National Park Service 2002:Part VIII].

“Integrity is based on significance: why, where, and when a property is important” (National Park Service 2002:Part VIII). Only after significance is fully established is the issue of integrity addressed. Ultimately, the question of integrity is answered by whether or not the property retains the identity for which it is significant.

4.6.4 City of San Luis Obispo Historic Preservation Ordinance

Evaluation Criteria for Historic Resources Listing

The City’s historic preservation ordinance (Title 14 of the San Luis Obispo Municipal Code) states that the Cultural Heritage Committee and City Council shall consider the standards of the State Historic Preservation Office (SHPO) when determining if a property should be designated as a listed Historic or Cultural Resource (Section 14.01.070). In order to be eligible for designation, the resource shall exhibit a high level of historic integrity, be at least fifty (50) years old (less than 50 if it can be demonstrated that enough time has passed to understand its historical importance) and satisfy at least one of the following criteria:

- A. Architectural Criteria:** Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values.

- (1) **Style:** Describes the form of a building, such as size, structural shape and details within that form (e.g. arrangement of windows and doors, ornamentation, etc.). Building style will be evaluated as a measure of:
 - a. The relative purity of a traditional style;
 - b. Rarity of existence at any time in the locale; and/or current rarity although the structure reflects a once popular style;
 - c. Traditional, vernacular and/or eclectic influences that represent a particular social milieu and period of the community; and/or the uniqueness of hybrid styles and how these styles are put together.

- (2) **Design:** Describes the architectural concept of a structure and the quality of artistic merit and craftsmanship of the individual parts. Reflects how well a particular style or combination of styles are expressed through compatibility and detailing of elements. Also, suggests degree to which the designer (e.g., carpenter-builder) accurately interpreted and conveyed the style(s). Building design will be evaluated as a measure of:
 - a. Notable attractiveness with aesthetic appeal because of its artistic merit, details and craftsmanship (even if not necessarily unique);
 - b. An expression of interesting details and eclecticism among carpenter-builders, although the craftsmanship and artistic quality may not be superior.

- (3) **Architect:** Describes the professional (an individual or firm) directly responsible for the building design and plans of the structure. The architect will be evaluated as a reference to:
 - a. A notable architect (e.g., Wright, Morgan), including architects who made significant contributions to the state or region, or an architect whose work influenced development of the city, state or nation.
 - b. An architect who, in terms of craftsmanship, made significant contributions to San Luis Obispo (e.g., Abrahams who, according to local sources, designed the house at 810 Osos—Frank Avila’s father’s home—built between 1927–30).

B. Historic Criteria

- (1) **History—Person:** Associated with the lives of persons important to local, California, or national history. Historic person will be evaluated as a measure of the degree to which a person or group was:
 - a. Significant to the community as a public leader (e.g., mayor, congress member, etc.) or for his or her fame and outstanding recognition—locally, regionally, or nationally.
 - b. Significant to the community as a public servant or person who made early, unique, or outstanding contributions to the community, important local affairs or institutions (e.g., council members, educators, medical professionals, clergymen, railroad officials).

- (2) **History—Event:** Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States. Historic event will be evaluated as a measure of:
 - (i) A landmark, famous, or first-of-its-kind event for the city—regardless of whether the impact of the event spread beyond the city.
 - (ii) A relatively unique, important or interesting contribution to the city (e.g., the Ah Louis Store as the center for Chinese-American cultural activities in early San Luis Obispo history).
 - (3) **History—Context:** Associated with and also a prime illustration of predominant patterns of political, social, economic, cultural, medical, educational, governmental, military, industrial, or religious history. Historic context will be evaluated as a measure of the degree to which it reflects:
 - a. Early, first, or major patterns of local history, regardless of whether the historic effects go beyond the city level, that are intimately connected with the building (e.g., County Museum).
 - b. Secondary patterns of local history, but closely associated with the building (e.g., Park Hotel).
- C. Integrity:** Authenticity of an historical resource’s physical identity evidenced by the survival of characteristics that existed during the resource’s period of significance. Integrity will be evaluated by a measure of:
- (1) Whether or not a structure occupies its original site and/or whether or not the original foundation has been changed, if known.
 - (2) The degree to which the structure has maintained enough of its historic character or appearance to be recognizable as an historic resource and to convey the reason(s) for its significance.
 - (3) The degree to which the resource has retained its design, setting, materials, workmanship, feeling and association.

Historic District Designation, Purpose

- A. Historic (H) District Designation.** All properties within historic districts shall be designated by an “H” zoning (14.01.080). Properties zoned “H” shall be subject to the provisions and standards as provided in Ordinance 17.54 (Zoning) of the Municipal Code.
- B. Purposes of Historic Districts.** The purposes of historic districts and H zone designation are to:
 - (1) Implement cultural resource preservation policies of the General Plan, the preservation provisions of adopted area plans, the Historic Preservation and Archaeological Resource Preservation Program Guidelines, and

- (2) Identify and preserve definable, unified geographical entities that possess a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development;
- (3) Implement historic preservation provisions of adopted area and neighborhood improvement plans;
- (4) Enhance and preserve the setting of historic resources so that surrounding land uses and structures do not detract from the historic or architectural integrity of designated historic resources and districts; and
- (5) Promote the public understanding and appreciation of historic resources.

4.6.5 Individual Property Evaluations

4.6.5.1 633 and 633½ Palm Street

No significant historical events appear to have taken place on the 633 and 633½ Palm Street property (Criterion 1). The buildings have had many residents over the years, but none appear to have played a significant role in the history or development of San Luis Obispo (Criterion 2). The buildings are of a common construction type for their function and the period in which they were built (Criterion 3). Finally, Criterion 4 is often applied to archaeological sites, but may be applied to structures if they contain information that would not be available by any means but studying the structures. The buildings and structures at 633 and 633½ Palm are representative of construction forms that have been well documented in San Luis Obispo County and California and cannot provide any new information on materials or design (Criterion 4). Therefore, the subject property does not appear to be eligible for the CRHR, nor does it meet any of the eligibility criteria for listing as a Master List property for the City of San Luis Obispo. Neither does it qualify as a contributing element of the Downtown Historic District.

4.6.5.2 610 Monterey Street

This property does not appear to be associated with events or individuals significant in the history or development of San Luis Obispo (Criteria 1 and 2). The building is vernacular in style and does not exhibit distinctive architectural characteristics or high artistic values; neither does it display a relative purity of a traditional style, a rarity of existence, or uniqueness of style nor does it possess an aesthetic appeal or artistic merit in its design (Criterion 3). Finally, Criterion 4 is often applied to archaeological sites, but may be applied to structures if they contain information that would not be available by any means but studying the structures. The buildings at 610 Monterey Street are representative of construction forms that have been well documented in San Luis Obispo County and California and cannot provide any new information on materials or design (Criterion 4). Therefore, the property does not meet any of the eligibility criteria for individual listing as a Master List property for the City of San Luis Obispo nor does it appear to be eligible for the CRHR.

This property is listed as a contributor to the Downtown Historic Preservation District and does provide continuity in the historic streetscape and an essential linkage between properties along Monterey Street and those along Nipomo and Dana streets. It is therefore considered a historical resource for the purposes of CEQA.

4.6.5.3 614 Monterey Street (Heyd Property)

The property at 614 Monterey Street does not appear to be associated with events or individuals significant in the history or development of San Luis Obispo. Although the building is vernacular in style, it appears to be a rare architectural example of Depression-era adobe architecture within the City of San Luis Obispo. The building was erected soon after the renovation of the Mission San Luis Obispo de Tolosa, which returned the mission buildings to their original appearance by revealing the previously covered adobe walls and removing other Victorian-age embellishments. The building at 614 Monterey Street, located just seven parcels away from the mission, was constructed of adobe and continues the theme of mission-style architecture down the block. The 1930s dwelling is a rarity in the City of San Luis Obispo and is the only adobe of its time period within the Downtown Historic District. Although the property does not appear to be individually eligible for the CRHR, the property does appear to meet the eligibility criteria for individual listing as a Master List property under criteria A(1)b and A(1)c because of its rarity and its representation of the vernacular renewal of adobe architecture in the decades prior to World War II. This property is also listed as a contributor to the Downtown Historic Preservation District and provides essential continuity along the historic streetscape. It is therefore considered a historical resource for the purposes of CEQA.

5 IMPACT ASSESSMENT AND RECOMMENDATIONS

5.1 PARKING STRUCTURE PROJECT

5.1.1 Archaeological Resources

Given the known sensitivity of the project vicinity and its potential for important archaeological resources to be preserved in the project area, archaeological investigations are recommended pursuant to the City's *Archaeological Resource Preservation Program Guidelines*. This work should be guided by a comprehensive research design and testing and mitigation plan prepared prior to building demolition or other construction to guide all phases of the archaeological investigation. The work should include:

- Monitoring of demolition of the buildings foundations and removal of all pavement by a qualified archaeologist and Native American monitor (demolition of the upper portions of the building need not be monitored).
- If archaeological resources are discovered during monitoring, they will be tested and treated pursuant to the testing and mitigation plan.
- When the site has been cleared, a qualified archaeologist shall test for the presence of significant archaeological resources. This work will be guided by the testing plan.
- If resources are discovered during testing, they should be evaluated for significance using criteria set forth in the testing and mitigation plan. Impacts to significant finds should be mitigated through a data recovery program using appropriate archaeological field and laboratory methods, pursuant to the mitigation plan.

Æ recommends using a consolidated approach to the archaeological investigations, as outlined in Section 5.0 of the City's *Archaeological Resource Preservation Program Guidelines*. The project timeline must include sufficient opportunity prior to construction to allow for identification and evaluation of cultural resources, and for full recovery of the significant subsurface resources that would be affected by the project. The results of the program should be presented in a report that details all methods and findings, evaluates the nature and significance of the resources, analyzes and interprets the results, and makes provisions for artifact curation and public display/interpretation of the significant resources. Artifacts recovered from significant resources should be housed at a qualified curation facility.

5.1.2 Architectural Resources

5.1.2.1 633 and 633½ Palm Street

The project proposes to demolish the buildings at 633 and 633½ Palm Street. Per the evaluation above, these buildings are not considered historical resources according to CEQA Guidelines,

nor are they eligible for individual listing on the City's Master List of Historic Resources. The properties are not within the Downtown Historic District, and thus loss of the buildings would not diminish the integrity of the district. Therefore, demolition of the buildings at 633 and 633½ Palm Street is not considered a significant impact on historical resources.

5.1.2.2 610 Monterey Street

As currently designed, completion of the proposed parking structure requires demolition of an existing two-car garage located at 610 Monterey Street. The project will also utilize a large portion of the backyard. The detached garage is associated with a one-story vernacular residence built in 1937 by Klien Williams. The garage is accessed from Nipomo Street and is not visible from the front of the residence. City records do not indicate which character-defining features of this property qualify it as a contributing element of the Downtown Historic District; while the residence itself provides continuity in the historic streetscape and provides an essential linkage between properties in the historic district along Monterey Street and those along Nipomo and Dana streets, the garage is not visible from Monterey Street and is visually shielded by mature landscaping along Nipomo Street. Thus, it does not appear that the district's integrity will suffer due to the loss of the detached garage. Therefore, demolition of the detached garage at 610 Monterey Street does not constitute an impact to the contributing property or the Downtown Historic District.

As construction activities will take place in close proximity to the dwelling, protective measures shall be taken to preserve the integrity of the dwelling:

- The residential building and landscaping features shall be photodocumented prior to the beginning of construction activities. The photo-documentation is intended to provide a complete record of the property as the basis for repairs if inadvertent damage occurs during construction.
- The residential building and landscaping shall have a barrier fence made of metal posts and construction safety netting to protect the residential building and surrounding landscape from inadvertent damage due to construction activities. This fence will extend from the project boundary south of the garage to the sidewalk on both Nipomo and Monterey streets and connect with the fencing at 614 Monterey Street.
- Notify the contractor that no demolition or construction work is to occur within or on the perimeter of the protective fencing.
- Construction monitoring will ensure that the protective measures are upheld.

5.1.2.3 614 Monterey Street (Heyd Property)

The project proposes a land take from the back yard of the property at 614 Monterey Street. This will place the proposed parking garage directly behind the residential building. This property appears to meet the eligibility criteria as a Master List property for the City of San Luis Obispo under criteria A(1)b and A(1)c. In addition, the property is listed as a contributing element of the Downtown Historic District; thus, it is considered a historical resource for the purposes of

CEQA. The backyard has not been identified as a character-defining feature of the property, and thus the taking *per se* does not constitute a significant direct impact on a historical resource. However, placing the proposed parking structure in such close proximity to the building could diminish its integrity of setting, feeling, and association. To avoid such impacts, the new structure will have to be designed very sensitively with respect to the height, scale, and massing of the historical resource. The proposed parking structure design should be reviewed by the Cultural Heritage Committee (CHC) to ensure it meets design standards and historical values consistent with the location. Moreover, as construction activities will take place in close proximity to the dwelling, protective measures must be taken to preserve the integrity of the dwelling:

- The residential building and landscaping features shall be photodocumented prior to the beginning of construction activities. The photo-documentation is intended to provide a complete documentation as the basis for implementing adequate repairs if inadvertent damage occurs to the property.
- The residential building and landscaping shall have a barrier fence made of metal posts and construction safety netting to protect the residential building and surrounding landscape from inadvertent damage due to construction activities. This fence will extend from the southern project boundary to the sidewalk on Monterey Street and connect with the fencing at 610 Monterey Street and the wood fence on the eastern parcel boundary.
- Notify the contractor that no demolition or construction work is to occur within or on the perimeter of the protective fencing.
- Construction monitoring will ensure that the protective measures are upheld.

5.1.2.4 Downtown Historic District

Monterey Street from Osos Street to the end of Dana Street is the core from which the Downtown Historic District expands. The majority of the proposed project takes place inside of the district boundaries, which wrap around Monterey and Nipomo streets and extend west on Dana Street. The proposed parking structure will be located directly across the street from the Master List Harmony Creamery building at 991 Nipomo, adjacent to the Master List Hays-Latimer Adobe at 642 Monterey, and will be visible from the entire length of contributing properties located along Dana Street. The visual impacts of the project may even reach as far as to the Dr. George B. Nichols House at 664 Monterey, the Carnegie Library at 696 Monterey, and the San Luis Obispo de Tolosa Mission, all Master List properties.

To preserve the setting, feeling, and historical associations of the Downtown Historic District in the project vicinity and ensure the proposed parking structure meets design standards and historic values consistent with its placement in the historic district, the project should adhere to the Community Design Guidelines adopted in 2002 while developing a final project design.

- The proposed parking structure design shall respect the height, scale, and massing of the historic resources in the project area and within the Downtown Historic District.

- The proposed parking structure design shall be reviewed by the Cultural Heritage Committee (CHC) to ensure it meets design standards and historical values consistent with the location within the Downtown Historic District.
- The CHC will forward a recommendation to the Architectural Review Commission, which would take the final action on the design plans for the proposed parking structure.

5.2 FUTURE DEVELOPMENT SCENARIO

The City has indicated plans for redevelopment of the corner of Monterey and Nipomo streets. The future development scenario includes demolition of the residential buildings at 610 and 614 Monterey Street and eventual construction of new commercial and or public structures. The following sections assess the impacts to historical resources under this future development scenario.

5.2.1 Archaeological Resources

As with the parking structure project, archaeological investigations are recommended under the future development scenario pursuant to the City's *Archaeological Resource Preservation Program Guidelines*. This work should be guided by a comprehensive research design and testing and mitigation plan prepared prior to building demolition or other construction to guide all phases of the archaeological investigation. The work should include:

- Monitoring of demolition of the buildings foundations and removal of all pavement by a qualified archaeologist and Native American monitor (demolition of the upper portions of the building need not be monitored).
- If archaeological resources are discovered during monitoring, they will be tested and treated pursuant to the testing and mitigation plan.
- When the site has been cleared, a qualified archaeologist shall test for the presence of significant archaeological resources. This work will be guided by the testing plan.
- If resources are discovered during testing, they should be evaluated for significance using criteria set forth in the testing and mitigation plan. Impacts to significant finds should be mitigated through a data recovery program using appropriate archaeological field and laboratory methods, pursuant to the mitigation plan.

Æ recommends using a consolidated approach to the archaeological investigations, as outlined in Section 5.0 of the City's *Archaeological Resource Preservation Program Guidelines*. The project timeline must include sufficient opportunity prior to construction to allow for identification and evaluation of cultural resources, and for full recovery of the significant subsurface resources that would be affected by the project. The results of the program should be presented in a report that details all methods and findings, evaluates the nature and significance of the resources, analyzes and interprets the results, and makes provisions for artifact curation and public display/interpretation of the significant resources. Artifacts recovered from significant resources should be housed at a qualified curation facility.

5.2.2 Architectural Resources

5.2.2.1 610 Monterey Street

Demolition of this building under the future development scenario would constitute a significant impact to the Downtown Historic District because it would remove an important contributing element that provides continuity along the historical streetscape. Replacement with modern structures would sever the portion of the historic district along Dana Street from the remainder of the district and insert nonconforming intrusions in its place. Thus, the integrity of the district would be substantially diminished.

Were demolition to occur, full Historic American Building Survey (HABS)-like Level III documentation of the property and of the Monterey streetscape, along with additional archival research and public interpretation, would lessen the impacts but would not reduce them to less than significant levels. As an alternative to demolition, this building could be rezoned for office or small retail uses; sensitive remodeling or renovation for such uses could be done in a manner that retains the building's character-defining historical and architectural features. Were a remodel to take place, the project should follow the Secretary of the Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, and Restoring Historic Buildings*. Following these guidelines in the development of future plans for this property would reduce impacts to less than significant levels.

5.2.2.2 614 Monterey Street (Heyd Property)

Demolition of any part of this building under the future development scenario would constitute a significant impact to the Master List-eligible property and the Downtown Historic District because it would remove an important contributing element that provides continuity along the historical streetscape. Replacement with modern structures would sever the portion of the historic district along Dana Street from the remainder of the district and insert nonconforming intrusions in its place. Thus, the integrity of the district would be substantially diminished.

Were demolition to occur, full HABS-like Level III documentation of the property and of the Monterey streetscape, along with additional archival research and public interpretation, would lessen the impacts but would not reduce them to less than significant levels. As an alternative to demolition, this building could be rezoned for office or small retail uses; sensitive remodeling or renovation for such uses could be done in a manner that retains the building's character-defining historical and architectural features. Were a remodel to take place, the project should follow the Secretary of the Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, and Restoring Historic Buildings*. Following these guidelines in the development of future plans for this property would reduce impacts to less than significant levels.

5.2.2.3 Downtown Historic District

The buildings on the north side of Monterey Street create a historic streetscape that connects the area west of Mission Plaza to the westernmost section of the Downtown Historic District on Dana Street. Many architecturally and historically significant residential and commercial buildings are located on Dana Street, including three Master List properties and 10 contributing

properties. Demolition of the two buildings at 610 and 614 Monterey Street, which create a critical linkage between the mission area and the Dana Street complex, would cause a substantial diminishment of the integrity of the historic district and would thus be a significant impact under CEQA.

Construction of new buildings and structures at these locations would create intrusions that would further degrade the integrity of the historic district. Since the establishment of the historic district in 1987, Nipomo Street between Higuera and Palm streets has already sustained several other significant impacts. Three buildings were removed (one relocated outside of the district) for the creation of the existing parking area at Palm and Nipomo streets in 1997. The new Children's Museum at the corner of Nipomo and Monterey streets is very modern in appearance, in stark conflict with surrounding properties. The new Soda Water Works building was also constructed with a modern appearance. Both of these properties are inside the Downtown Historic District boundaries but are no longer contributing resources. The introduction of still more new, nonconforming elements would be highly detrimental, essentially severing the Dana Street group from the rest of the district. Implementing the recommendations described above prior to demolition and new construction would lessen the impacts to the historic district, but would not reduce them to less than significant levels.

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APPENDIX B

Records Search Results

CENTRAL COAST INFORMATION CENTER

California
Archaeological
Inventory



SAN LUIS OBISPO AND
SANTA BARBARA COUNTIES

Department of Anthropology
University of California, Santa Barbara
Santa Barbara, CA 93106-3210
(805) 893-2474
FAX (805) 893-8707
Email: centralcoastinfo@gmail.com

1/13/2011

Damon Haydu
Applied Earthworks
743 Pacific Street Suite A
San Luis Obispo, CA 93401

Dear Mr. Haydu

Enclosed are the results of the record search you requested for the Palm-Nipomo Parking Structure. Our records were searched for all known archaeological sites, historic resources, and previous cultural resource surveys within a 200-foot radius of the project area.

In this search, five archaeological site(s) and eighteen previous cultural resource survey(s) were found. The survey locations were mapped onto portions of the San Luis Obispo quad(s). A bibliography of these surveys is included. A search of the inventories for the State Historic Property Data Files, National Register of Historic Places, National Register of Determined Eligible Properties, California Historical Landmarks, California Points of Historic Interest, California OHP Archaeological Determinations of Eligibility, and the Caltrans State and Local Bridge Surveys yielded eight property evaluation(s) within the search radius.

According to our records, the project area has been previously surveyed. Therefore it is recommended that you consult the report(s) before beginning construction.

Please contact me if you have any questions about this search.

Sincerely,

A handwritten signature in blue ink that reads "Kristina Gill".

Kristina Gill
Assistant Coordinator

E Number	718	Date	1985	Author	Hoover, R.
Title	Letter Report: Proposed Nipomo Street Bridge Improvement				
Quad	San Luis Obispo				
Site	Negative				Comments
Area	Units	ReportType		Pages	

E Number	1972	Date	1991	Author	Dills, C.
Title	Archaeological Potential of Project at Nipomo and Palm, San Luis Obispo (0755)				
Quad	San Luis Obispo				
Site	Negative				Comments
Area	Units	ReportType		Pages	

E Number	2529	Date	1993	Author	Singer, C., J. Atwood, J. Frierman
Title	It Came From Beneath the Streets: An Archaeological Report on the Expansion of the City of San Luis Obispo Wastewater Treatment System				
Quad	Pismo Beach; San Luis Obispo				
Site	SLO 1449H				Comments
Area	3.5 linear	Units	ReportType		Pages 141

E Number	2630	Date	1994	Author	Bertrando, E.; Bertrando, B.
Title	Cultural Resource Investigation of the Nipomo Street Bridge Replacement San Luis Obispo, CA				
Quad	San Luis Obispo				
Site	SLO-1668H				Comments
Area	404.7 sq m	Units	ReportType		Pages

E Number	2651	Date	1983	Author	City of San Luis Obispo
Title	Completion Report: Historic Resources Survey				
Quad	San Luis Obispo				
Site					Comments
Area	Units	ReportType		Pages	

E Number 4212 **Date** 2000 **Author** Bertrando, Ethan
Title Cultural Resource Inventory of the 1000 Block of Broad Street, San Luis Obispo, CA.

Quad San Luis Obispo

Site CA-SLO-1668/H

Comments pp.16

Area >1

Units acres

ReportType

Pages

E Number 4678 **Date** 2002 **Author** Conway, Thor

Title An Archaeological Surface Survey for the San Luis Obispo Children's Museum Expansion, San Luis Obispo, CA

Quad San Luis Obispo

Site Negative

Comments 11 pp.

Area <1

Units acres

ReportType Survey

Pages

E Number 5033 **Date** 2002 **Author** Bertrando, E.

Title Cultural Resource Inventory of the Water, Sewer, Storm Drain Imporvment Project within the City of San Luis Obispo Historic District, San Luis Obispo, CA

Quad San Luis Obispo

Site SLO-64

Comments 35pp.

Area <2

Units acres

ReportType Survey

Pages

E Number 5333 **Date** 2004 **Author** Higgins, H.

Title Cultural Resource Construction Monitoring for the Century Project, San Luis Obispo County, California

Quad San Luis Obispo

Site CA-SLO-084H

Comments 93 pp.

Area 4,510,254

Units square

ReportType Excavation

Pages

E Number 5314 **Date** 2004 **Author** Bertrando, E and B. Bertrando

Title Cultural Resource Inventory of the Proposed Nipomo Street Drain Line, 1000 Block of Nipomo Street, San Luis Obispo County, California

Quad San Luis Obispo

Site negative

Comments 23 pp.

Area 1.2

Units acres

ReportType Survey

Pages

E Number 3554 **Date** 1998 **Author** Singer, Clay
Title Archaeological Resources Inventory and Impact Assessment for Proposed Improvements at the Mission college
Prep High School sports field in the City of San Luis Obispo, SLO County, CA

Quad San Luis Obispo

Site negative

Comments pp. 9

Area none given

Units

ReportType

Pages

E Number 3771 **Date** 1999 **Author** Conway, Thor

Title An Archaeological Surface Survey of 610 Monterey Street, San Luis Obispo, California

Quad San Luis Obispo

Site negative

Comments pp. 10

Area none given

Units

ReportType

Pages

E Number 3943 **Date** 1998 **Author** Bertrando, Betsy and Ethan Bertrando

Title Cultural Resource Investigation of the Soda Water Works and Tullman Residence Complex APN 02-402-15
Located on the South Corner of Nipomo and Dana Streets, City of San Luis Obispo, CA

Quad San Luis Obispo

Site SLO-1668H

Comments pp. 27

Area .33 acre

Units

ReportType

Pages

E Number 3828 **Date** 1996 **Author** Bertrando, Ethan

Title Cultural Resource Investigation of the Palm Street/Nipomo Street Parking Lot, San Luis Obispo, CA

Quad San Luis Obispo

Site negative

Comments 6 pp.

Area none given

Units

ReportType

Pages

E Number 4128 **Date** 2000 **Author** Singer, Clay A.

Title Archaeological monitoring of mechanical excavations at 1015 Nipomo Street in the city of San Luis Obispo, San
Luis Obispo County, California

Quad San Luis Obispo

Site SLO-1668H

Comments 16 ppp

Area 1 acre

Units

ReportType

Pages

E Number 5639 **Date** 2005 **Author** Price, Barry A.

Title Archaeological Monitoring for the Nipomo Street Drain Line (ER 40-05).

Quad San Luis Obispo

Site CA-SLO-1668/H

Comments

Area 3164 **Units** square feet **ReportType** Monitoring

Pages 4

E Number 5672 **Date** 2003 **Author** Bertrando, Betsy

Title Historic Resource Inventory and House Evaluation 581 Dana Street San Luis Obispo, CA (P-40-041148; APN 002-402-014)

Quad San Luis Obispo

Site P-40-041148

Comments

Area 1 parcel **Units** **ReportType** Historic Property Evaluation

Pages 13

E Number 5676 **Date** 2005 **Author** Bertrando, Ethan; Betsy Bertrando

Title Historic Resource Inventory and Initial Structure Evaluation for the Leitcher Apartments (P 40-002391) 667 Monterey Street, City of San Luis Obispo, CA.

Quad San Luis Obispo

Site P-40-002391

Comments

Area 22500 **Units** square feet **ReportType** Historic Property Evaluation

Pages 30

APPENDIX C

Cultural Resource Records

State of California — The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
 HRI #
 Trinomial
 NRHP Status Code

Other Listings
 Review Code

Reviewer

Date

Page 1 of 4

Resource Name or #: 633 and 633½ Palm Street

P1. Other Identifier:

- *P2. **Location:** a. **County:** San Luis Obispo Not for Publication Unrestricted
 b. **USGS 7.5' Quad:** San Luis Obispo, CA **Date** 1965, Photorevised 1979 T 30S, R 12E; Section 26
 c. **Address:** 633 and 633½ Palm Street, San Luis Obispo, CA 93401 **B.M.**
 d. **UTM:** NAD, Zone ; mE / mN
 e. **Other Locational Data:** APN 002-412-003

*P3a. **Description:** The wood constructed building rests on a concrete foundation with a rectangular footprint. The walls are clad with slender wood boards. The medium-pitched gable-front roof is covered with composition shingles and the eaves are open. Wood slat vents are present in the gable peak. Three steps lead to the concrete stoop that is shaded by the dropped, gable-front porch. Fenestration includes transomed wood sash windows on the north facade, wood sash windows on the east and west facades, and a wood framed glass door at the main entrance. A concrete driveway leads to the building at the rear of the property, 633½ Palm Street. The two-story wood constructed building rests on a concrete foundation with a rectangular footprint and presents a front overhang. The walls are clad with wide beveled wood boards on most of the north facade and plaster on all remaining facades. The gable roof is covered with composition shingles and the eaves are open. Rectangular vents are present in the gable end. Wood sash windows are mixed with newer metal windows and large multiple-paned fixed windows. Wood constructed stairs leading to the second story landing are shaded by a dropped gable roof.

*P3b. **Resource Attributes:** HP3 Multiple family property

- *P4. **Resources Present:** Building Structure Object Site District Element of District Other:

*P5a. **Photograph**



*P5b. **Description of Photo:** View looking south at the north facade.

*P6. **Date Constructed/Age and Sources:**
 1928, 1947 City Building Permits
 Prehistoric Historic Both

*P7. **Owner and Address:**
 City of San Luis Obispo
 990 Palm Street
 San Luis Obispo, CA 93401

*P8. **Recorded By:** Aubrie Morlet
 Applied EarthWorks, Inc.
 1391 W. Shaw Ave., Suite C
 Fresno, CA 93711

*P9. **Date Recorded:** January 21, 2011

*P10. **Survey Type:** Intensive
 Reconnaissance Other

Describe:

*P11. **Report Citation:** Price, Barry A., Keith Warren, Aubrie Morlet, and Damon M. Haydu

2011 *Cultural Resources Inventory for the Palm-Nipomo Parking Structure, San Luis Obispo, California*. Applied EarthWorks, Inc., San Luis Obispo, California. Submitted to City of San Luis Obispo Department of Public Works, San Luis Obispo, California.

- *Attachments: NONE Location Map Site/Sketch Map Continuation Sheet
 Building, Structure, and Object Record Archaeological Record District Record Linear Feature Record
 Photograph Record Milling Station Record Rock Art Record Artifact Record
 Other (list):

Page 2 of 4

Resource Name or #: 633 and 633½ Palm Street

Continuation

Update



P5c. Description of Photo: View looking southeast at the north and west facades of 633½ Palm Street and west facade of 633 Palm Street.



P5d. Description of Photo: View looking north at the west and south facades of 633½ Palm Street.

State of California — The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #
 HRI #/Trinomial

*NRHP Status Code

Page 3 of 4

Resource Name or #: 633 and 633½ Palm Street

B1. Historic Name:

B2. Common Name:

B3. Original Use: Single family residences

B4. Present Use: Multiple family residence at 633½

***B5. Architectural Style:** Craftsman, Vernacular

***B6. Construction History (construction date, alterations, and dates of alterations):** According to the building permit, construction on 633 Palm Street was begun in December 1927. This building does not appear significantly altered. A building permit was filed for the construction of 633½ Palm Street in December 1947. The building is described as a residence with garage. Based on visual inspection, it appears that the first story of the building was a garage for both buildings and the living space was on the second story. At an unknown time, the first story was converted into living space with a small storage area concealed by wood board doors on the west end. A permit was filed in May 1956 for unspecified alterations and repairs. Based on materials utilized, it is possible that the first story conversion occurred at that time. In 2003, 633 Palm was re-roofed.

***B7. Moved?:** No Yes Unknown

Date:

Original Location:

***B8. Related Features:**

B9. a. Architect: Unknown

b. Builder: James Jepson, 633; unknown 633½

***B10. Significance:** Theme:

Area:

Period of Significance:

Property Type:

Applicable Criteria:

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

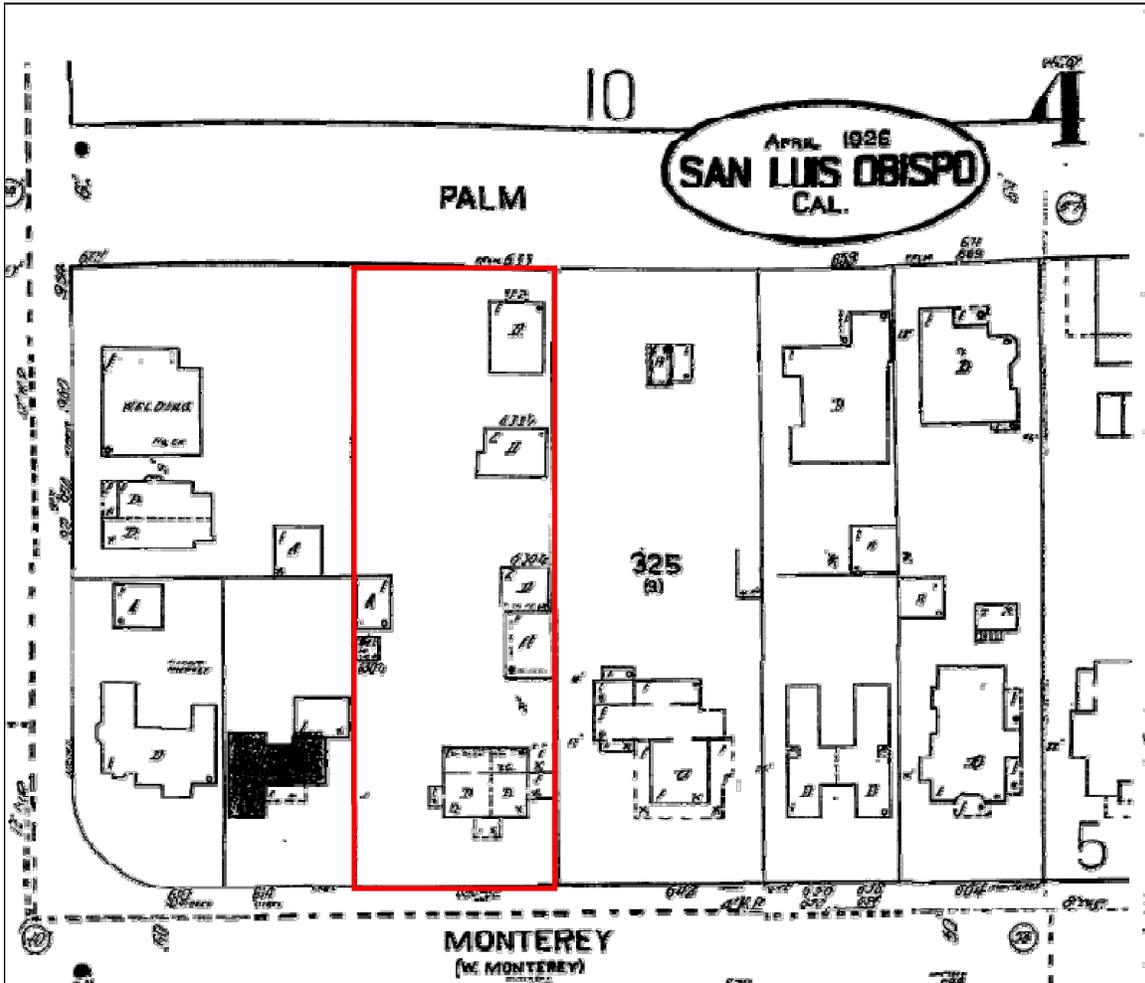
The subject property is located in Block 9, Lot 3 of the 1870 Harris and Ward Map of the Town of San Luis Obispo. At that time, S. A. Pollard is listed as the owner and the lot stretched from Monterey Street to Palm Street. Pollard listed on the Petition to Grant (land) that he had settled the property in 1868 and valued land improvements at \$2000. The 1874 Map of San Luis Obispo County by R.R. Harris illustrated that Judge McDowell K. Venable (San Luis Obispo County Judge from 1871-1879) owned lot 3. The 1886 Sanborn map illustrates a hipped roof dwelling with full width front porch fronting Monterey Street and an outhouse located to the north of the dwelling. A few ancillary buildings come and go but by 1903 only the dwelling is present on the lot. Ownership is unknown between 1874 and 1923 but the 1910 Census indicated that the dwelling was rented to William Walter and family. In May 1923, Percy L. Tonks owns the property. Tonks, born on December 1, 1886, was living in the Women's Relief Society's Orphanage in Oakland California during the 1900 Census. After serving five years in the U.S. Navy, Tonks took several odd jobs working in Los Angeles (1916), Avila (1917), and San Luis Obispo (1920). From 1920 to 1924, Tonks worked as a hotel porter at the Hotel Andrews at 955 Monterey Street. Upon purchasing the subject property, Tonks constructs residential buildings in 1923, 1927, and 1928. It is unknown how long Tonks owned the property. The last residential building was constructed in 1947; the original building permit is missing. The buildings at 630-632 and 630½ Monterey Street were demolished in 1977.

All of the buildings, included those at 633 and 633½ Palm Street have had many residents over the years. None of which appears to have played a significant role in the history or development of San Luis Obispo. The buildings are of a common construction type for its function and the

This space reserved for official comments.



period in which it was built. No significant historical events appear to have taken place on the property. Therefore, the subject property does not meet any of the eligibility criteria for listing as a Master List property for the City of San Luis Obispo nor does it appear to be eligible for the CRHR.



The above map is from the 1950 Sanborn map, update from the 1926 Sanborn Map. Lot 3 is illustrated with 633, 633½ Palm and 630, 632, 630½ Monterey Street. This map reflects all of the buildings that once stood on the property. The majority of the lot is now utilized for parking with only 633 and 633½ Palm Street remaining.

B11. Additional Resource Attributes (list attributes and codes):

***B12. References:** Applications for San Luis Obispo Building Permits (1906–1937), MS034, Special Collections, Robert E. Kennedy Library, Calpoly; City of San Luis Obispo Building Permits; City of San Luis Obispo Community Development Files on Historical Properties; US Census Records and Index to Registration Affidavits; City Directories, History Room, San Luis Obispo City-County Library.

B13. Remarks:

***B14. Evaluator:** Aubrie Morlet
Applied EarthWorks, Inc.
1391 W. Shaw Ave., Suite C
Fresno, CA 93711

Date of Evaluation: January 2011

State of California — The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
 HRI #
 Trinomial
 NRHP Status Code

Other Listings
 Review Code

Reviewer

Date

Page 1 of 4

Resource Name or #: 610 Monterey Street

P1. Other Identifier:

- *P2. **Location:** a. **County:** San Luis Obispo Not for Publication Unrestricted
 b. **USGS 7.5' Quad:** San Luis Obispo, CA **Date** 1965, Photorevised 1979 T 30S, R 12E; Section 35
 c. **Address:** 610 Monterey Street, San Luis Obispo, CA 93401 **B.M.**
 d. **UTM:** NAD, Zone ; mE / mN
 e. **Other Locational Data:** APN 002-412-011

*P3a. **Description:** The wood-constructed building rests on a concrete foundation with an irregular footprint. The walls are clad with plaster. The low-pitched cross-hipped roof is covered with composition shingles and the eaves are boxed. Fenestration includes a bay window on the south and west facades, wood sash windows, metal sliding windows on the northwest corner, and a solid wood door on the south facade. Two chimneys are present on the west facade; a tapered chimney is attached on the south end and a square chimney pierces the roof slope. A two car garage is located to the north of the dwelling with a concrete drive leading to Nipomo Street. The garage is clad with plaster and the hipped roof is covered with composition shingles. Two single wood doors open into the garage.

*P3b. **Resource Attributes:** HP2 Single-family property

*P4. **Resources Present:** Building Structure Object Site District Element of District Other:

*P5a. **Photograph**



P5b. Description of Photo: View looking northwest at the south facade.

*P6. **Date Constructed/Age and Sources:** 1937 San Luis Obispo County Assessor's Office
 Prehistoric Historic Both

*P7. **Owner and Address:**
 City of San Luis Obispo
 990 Palm Street
 San Luis Obispo, CA 93401

*P8. **Recorded By:** Aubrie Morlet
 Applied EarthWorks, Inc.
 1391 W. Shaw Ave., Suite C
 Fresno, CA 93711

*P9. **Date Recorded:** January 21, 2011

*P10. **Survey Type:** Intensive
 Reconnaissance Other
Describe:

*P11. **Report Citation:** Price, Barry A., Keith Warren, Aubrie Morlet, and Damon M. Haydu
 2011 *Cultural Resources Inventory for the Palm-Nipomo Parking Structure, San Luis Obispo, California.* Applied EarthWorks, Inc., San Luis Obispo, California. Submitted to City of San Luis Obispo Department of Public Works, San Luis Obispo, California.

- *Attachments: NONE Location Map Site/Sketch Map Continuation Sheet
 Building, Structure, and Object Record Archaeological Record District Record Linear Feature Record
 Photograph Record Milling Station Record Rock Art Record Artifact Record
 Other (list):

Page 2 of 4

Resource Name or #: 610 Monterey Street

Continuation

Update



P5c. Description of Photo: View looking east at the west facade along Nipomo Street.



P5d. Description of Photo: View looking southeast at the north and west facade of the detached garage.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #
HRI #/Trinomial

*NRHP Status Code

Page 3 of 4

Resource Name or #: 610 Monterey Street

B1. Historic Name:

B2. Common Name:

B3. Original Use: Single-family residence **B4. Present Use:** Same

***B5. Architectural Style:** Vernacular

***B6. Construction History (construction date, alterations, and dates of alterations):** According to the San Luis Obispo County Assessor's Office, the building was constructed in 1937. City directories do not list the property prior to 1938. A building permit was issued October 3, 1957 to roof the existing porch. No original building permit was located. Upon property survey, it appears that a single metal sliding window at the rear of the west facade was either replaced or added at an unknown time. No other alterations are visible.

***B7. Moved?:** No Yes Unknown Date: Original Location:

***B8. Related Features:** A detached garage is located north of the residential building.

B9. a. Architect: Unknown **b. Builder:** Unknown

***B10. Significance:** Theme: Area: Applicable Criteria:
Period of Significance: Property Type:
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)
The subject property is located in Block 9, Lot 2 of the 1870 Harris and Ward Map of the Town of San Luis Obispo. At that time, Roberto Villa is listed as the owner. According to the Petition to Grant filed on July 19, 1870 Villa settled the land in 1855 and valued land improvements at \$200. The 1874 Map of San Luis Obispo County by R.R. Harris illustrates that Villa subdivided his lot into two; selling the parcel adjacent to Nipomo Street to Judge McDowell K Venable (also owned lot 3) and retaining for himself the inside lot. The 1886 Sanborn map illustrates a single dwelling with a full-width front porch and bay window on the west facade. This building was demolished after 1930. The building currently on site was constructed in 1937 or 1938. No building permit was located but the city directories listed Kline J Williams as the homeowner from 1938 to at least 1975. The Index to Registration Affidavits for the San Luis Obispo No. 9 Precinct General Election state that Williams is a Creamery Worker. Although William's employer is unknown, the Harmony Valley Creamery Association opened a processing plant on the corner of Nipomo and Dana Streets in 1930, across the street from the subject property. (continued on page 4)

B11. Additional Resource Attributes (list attributes and codes):

***B12. References:** City of San Luis Obispo Building Permits; City of San Luis Obispo Community Development Files on Historical Properties; US Census Records and Index to Registration Affidavits; City Directories, History Room, San Luis Obispo City-County Library.

B13. Remarks:

***B14. Evaluator:** Aubrie Morlet
Applied EarthWorks, Inc.
1391 W. Shaw Ave., Suite C
Fresno, CA 93711

Date of Evaluation: May 2011

This space reserved for official comments.



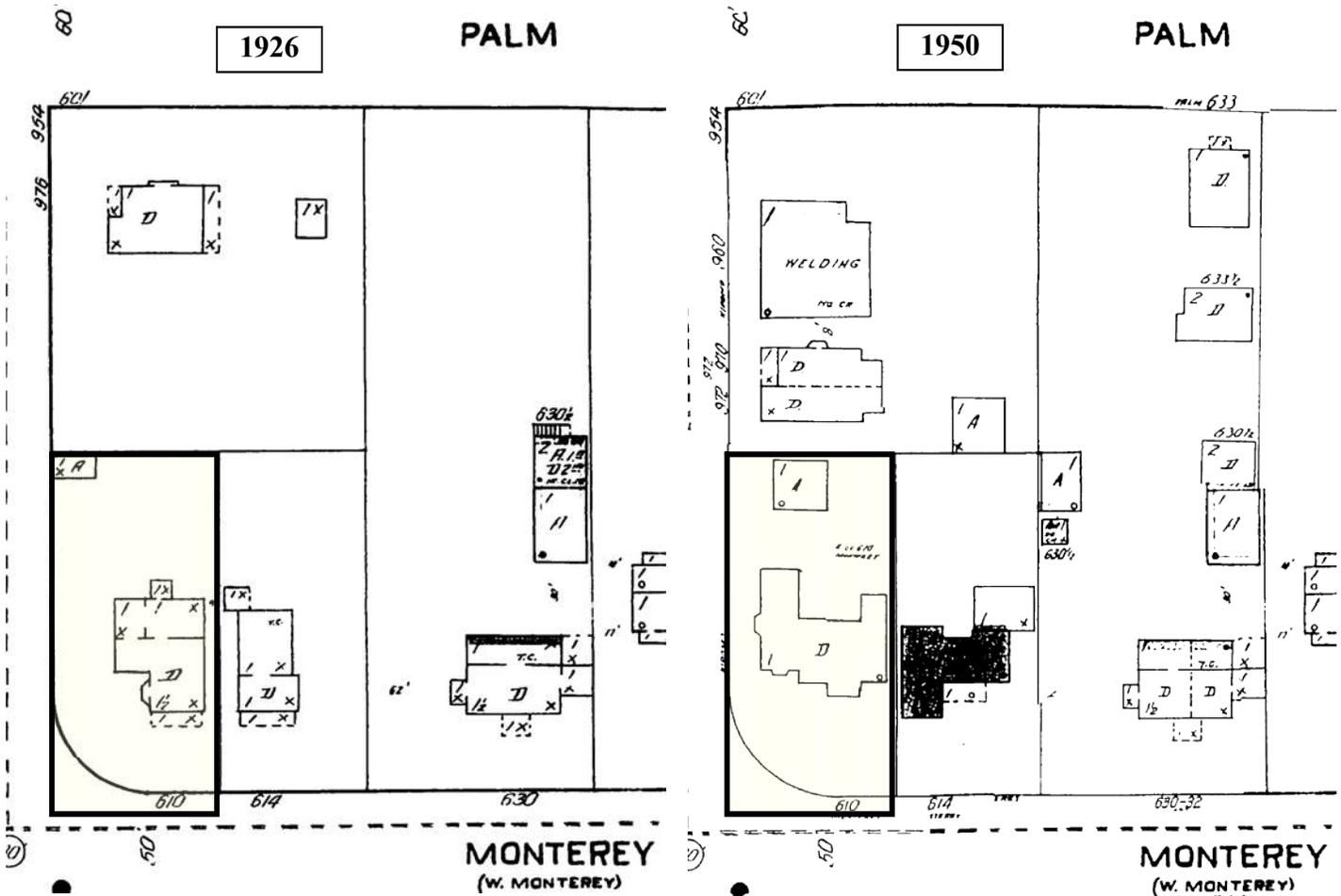
State of California — The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #
 HRI #/Trinomial

*NRHP Status Code

***B10. Significance: (continued from page 3)**

The property does not appear to be associated with events and individuals significant in the history or development of San Luis Obispo. The building is vernacular in style and does not display a relative purity of a traditional style, a rarity of existence, or uniqueness of style nor does it possess an aesthetic appeal or artistic merit in its design. Therefore, the property does not meet any of the eligibility criteria for individual listing as a Master List property for the City of San Luis Obispo nor does it appear to be eligible for the CRHR. This property is listed as a contributor to the Downtown Historic Preservation District and is therefore considered a historical resource for the purposes of CEQA.



The above maps are from the 1926 Sanborn and the updated 1950 Sanborn map. The divided Lot 2 includes the subject property labeled 610 Monterey. The 1926 image illustrates the building constructed prior to 1886. The 1950 updated map illustrates the new building facing Monterey Street and the garage facing Nipomo Street.

State of California — The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
 HRI #
 Trinomial
 NRHP Status Code

Other Listings
 Review Code

Reviewer

Date

Page 1 of 4

Resource Name or #: 614 Monterey Street (Heyd Property)

P1. Other Identifier:

- *P2. **Location:** a. **County:** San Luis Obispo Not for Publication Unrestricted
 b. **USGS 7.5' Quad:** San Luis Obispo, CA **Date** 1965, Photorevised 1979 T 30S, R 12E; Section 35
 c. **Address:** 614 Monterey Street, San Luis Obispo, CA 93401 **B.M.**
 d. **UTM:** NAD, Zone ; mE / mN
 e. **Other Locational Data:** APN 002-412-012

*P3a. **Description:** The abode brick constructed building rests on a concrete foundation with an irregular footprint. The walls 12 inches thick and the exterior is painted. The low-pitched cross-hipped roof is covered with wood shingles and the eaves are close. Fenestration includes recessed wood sash windows on all facades and a solid wood door on the south facade. The two front windows on either side of the south facade door are square in shape while the windows on the east and west facades are rectangular. Two chimneys are present; a tapered chimney is attached on the southeast corner and a rectangular chimney pierces the roof ridge near the cross joint. A single car width garage is attached to the north facade east side. This wood constructed addition is clad with stucco. A single wood sash window is present on the north facade of the garage.

*P3b. **Resource Attributes:** HP2 Single-family property

- *P4. **Resources Present:** Building Structure Object Site District Element of District Other:

***P5a. Photograph**



P5b. Description of Photo: View looking northwest at the south facade.

- *P6. **Date Constructed/Age and Sources:** c. 1935, 1939 San Luis Obispo County Assessor's Office
 Prehistoric Historic Both

*P7. **Owner and Address:**
 City of San Luis Obispo
 990 Palm Street
 San Luis Obispo, CA 93401

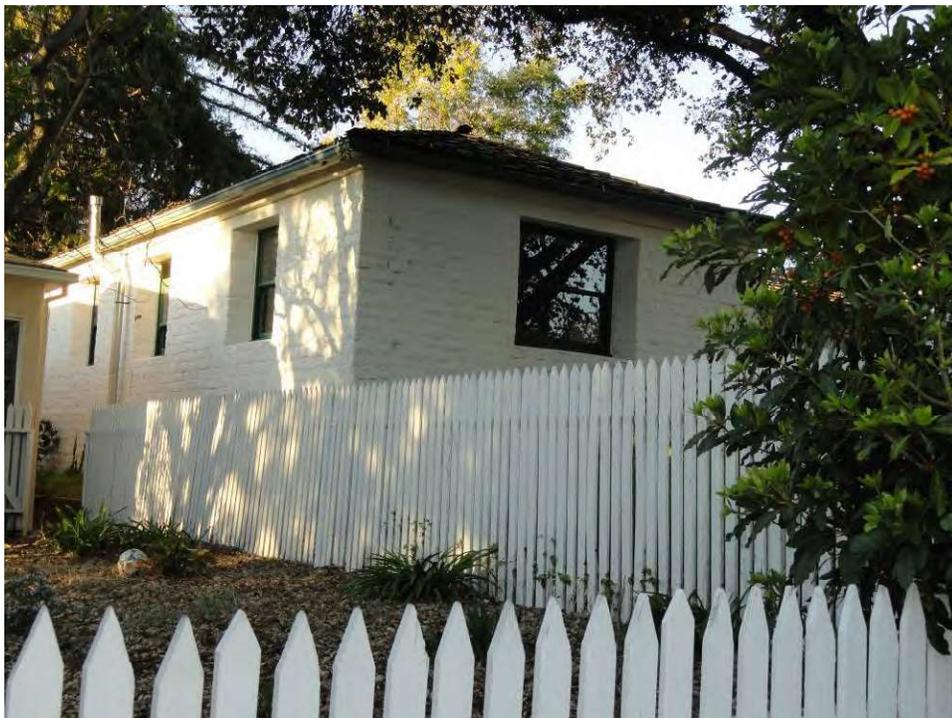
*P8. **Recorded By:** Aubrie Morlet
 Applied EarthWorks, Inc.
 1391 W. Shaw Ave., Suite C
 Fresno, CA 93711

*P9. **Date Recorded:** January 21, 2011

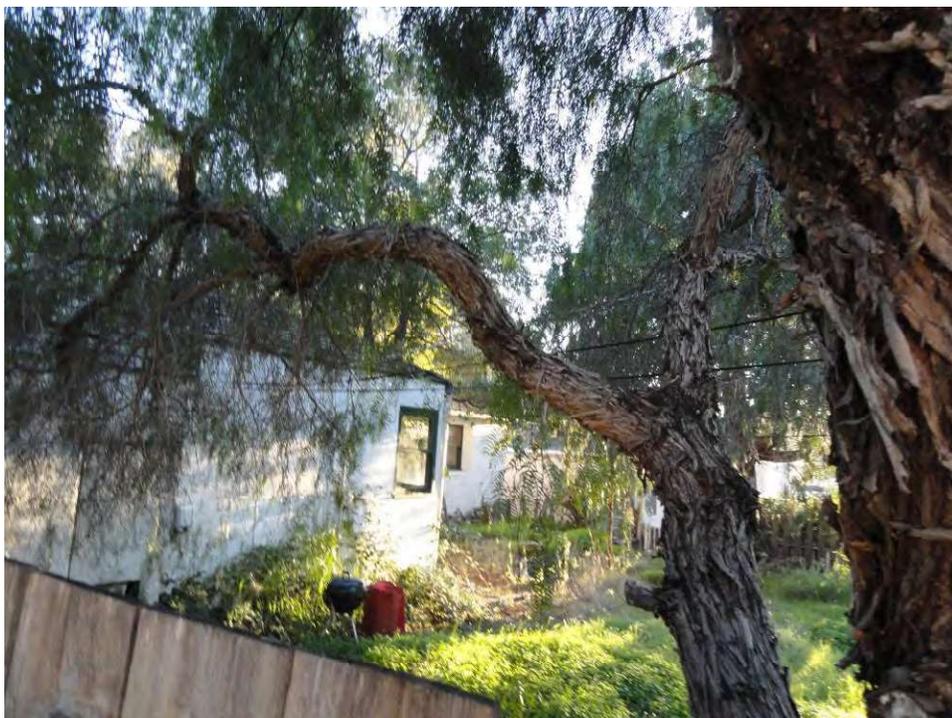
- *P10. **Survey Type:** Intensive
 Reconnaissance Other
Describe:

*P11. **Report Citation:** Price, Barry A., Keith Warren, Aubrie Morlet, and Damon M. Haydu
 2011 *Cultural Resources Inventory for the Palm-Nipomo Parking Structure, San Luis Obispo, California.* Applied EarthWorks, Inc., San Luis Obispo, California. Submitted to City of San Luis Obispo Department of Public Works, San Luis Obispo, California.

- *Attachments: NONE Location Map Site/Sketch Map Continuation Sheet
 Building, Structure, and Object Record Archaeological Record District Record Linear Feature Record
 Photograph Record Milling Station Record Rock Art Record Artifact Record
 Other (list):



P5c. Description of Photo: View looking northeast at the west and south facades.



P5d. Description of Photo: View looking southwest at the north facade and backyard.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #
HRI #/Trinomial

*NRHP Status Code

Page 3 of 4

Resource Name or #: 614 Monterey Street (Heyd Property)

B1. Historic Name:

B2. Common Name:

B3. Original Use: Single-family residence **B4. Present Use:** Same

***B5. Architectural Style:** Vernacular, Mission influence

***B6. Construction History (construction date, alterations, and dates of alterations):** According to the San Luis Obispo County Assessor's Office, the building was constructed in 1939 although the owners are residing at the property in 1936. No original building permit or subsequent permits were located. The property does appear to have an attached garage addition completed before 1950. No other alterations are visible.

***B7. Moved?:** No Yes Unknown Date: Original Location:

***B8. Related Features:** None

B9. a. Architect: Unknown **b. Builder:** Unknown

***B10. Significance:** Theme: Continuation of Mission Influenced Architecture Area: San Luis Obispo, CA
Period of Significance: 1935–1939 Property Type: Dwelling Applicable Criteria: SLO A(1)b
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)
The subject property is located in Block 9, Lot 2 of the 1870 Harris and Ward Map of the Town of San Luis Obispo. At that time, Roberto Villa is listed as the owner. According to the Petition to Grant filed on July 19, 1870 Villa settled the land in 1855 and valued land improvements at \$200. The 1874 Map of San Luis Obispo County by R.R. Harris illustrates that Villa subdivided his lot into two; selling the parcel adjacent to Nipomo Street to Judge McDowell K Venable (also owned lot 3) and retaining for himself the inside lot at 614 Monterey. The 1886 Sanborn map illustrates a single dwelling with a full-width front porch. In the 1910 U.S. Census, Louis and Elizabeth Heyd are registered as the owners and occupants of the property. Louis Heyd Sr., a tailor by trade, resided at the property until his death in 1917. Elizabeth De Folque Heyd, a nurse after her children were grown, resided at the property until her death in 1933. This building was demolished after 1933. According to the County Assessors Office the building currently on site was constructed in 1939, although Heyd's son and family are residing on the property as early as 1936. It is possible that the building was constructed as early as 1935.(continued on page 4).

B11. Additional Resource Attributes (list attributes and codes):

***B12. References:** City of San Luis Obispo Building Permits; City of San Luis Obispo Community Development Files on Historical Properties; US Census Records and Index to Registration Affidavits; City Directories, History Room, San Luis Obispo City-County Library.

B13. Remarks:

***B14. Evaluator:** Aubrie Morlet
Applied EarthWorks, Inc.
1391 W. Shaw Ave., Suite C
Fresno, CA 93711

Date of Evaluation: June 2011

This space reserved for official comments.



State of California — The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

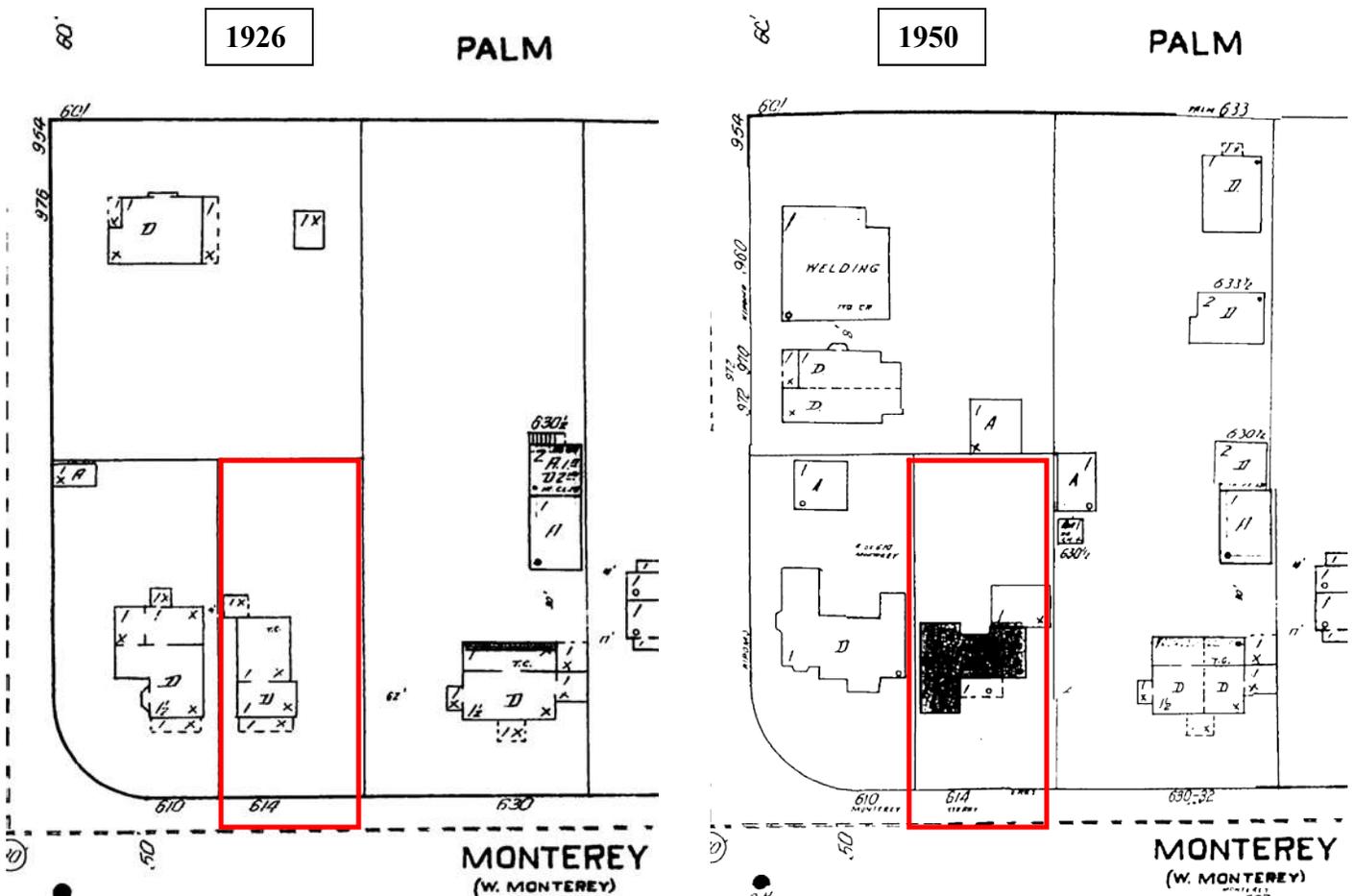
Primary #
 HRI #/Trinomial

*NRHP Status Code

***B10. Significance: (continued from page 3)**

No building permit was located but the city directories listed Louis and Lucy Heyd as the residents and homeowners from 1936 to at least 1975. The 1934 City Directory states that Louis Heyd is a Stationary Engineer for the Union Oil Company.

The property does not appear to be associated with events and individuals significant in the history or development of San Luis Obispo. Although the building is vernacular in style, it does appear to be a rare architectural example within the City of San Luis Obispo. The building was constructed soon after the renovation of the Mission San Luis Obispo de Tolosa. The renovation returned the Mission buildings to their original appearance including the revealing of the adobe walls. It is possible that the building at 614 Monterey Street, located seven parcels away from the Mission, was constructed of adobe in an effort to continue the theme of the mission architecture. The 1930s abode dwelling appears to be a rarity of existence in the City of San Luis Obispo and is the only abode of its time period within the Downtown Historic District. Although the property does not appear to be individually eligible for the CRHR, the property does appear to meet the eligibility criteria for individual listing as a Master List property for the City of San Luis Obispo under criterion A(1)b. This property is also listed as a contributor to the Downtown Historic Preservation District and is therefore considered a historical resource for the purposes of CEQA.



The above maps are from the 1926 Sanborn and the updated 1950 Sanborn map. The 1926 image illustrates the building constructed prior to 1886. The 1950 updated map illustrates the new building facing Monterey Street. The darkened area indicates the brick construction while the other buildings are wood framed.

Appendix C

Noise Modeling Worksheets

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 08/14/2017
 Case Description: Nipomo Palm - Arch Coating

**** Receptor #1 ****

Description	Baselines (dBA)		
	Land Use	Daytime	Evening Night
Receptor - Reis Family Mortuary	Residential	64.7	45.0 45.0

Description	Equipment					
	Impact Device	Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Compressor (air)	No	40	77.7	25.0	0.0	

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	83.7	79.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	83.7	79.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #2 ****

Description	Baselines (dBA)		
	Land Use	Daytime	Evening Night
Receptor - Palm View Apartments	Residential	60.4	45.0 45.0

Description	Equipment					
	Impact Device	Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Compressor (air)	No	40	77.7	25.0	0.0	

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	83.7	79.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	83.7	79.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Equipment Lmax Leq	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air) N/A	83.7	79.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total N/A	83.7	79.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Description	Baselines (dBA)			
	Land Use	Daytime	Evening	Night
Receptor - Monterey Street	Residential	56.0	45.0	45.0

Description	Equipment					
	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Receptor Lmax (dBA)	Estimated Distance Shielding (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40	77.7	25.0	0.0	

Equipment Lmax Leq	Results												
	Noise Limits (dBA)						Noise Limit Exceedance (dBA)						
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night
Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air) N/A	83.7	79.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total N/A	83.7	79.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 08/14/2017
 Case Description: Palm Nipomo - Construction

**** Receptor #1 ****

Description	Baselines (dBA)		
	Land Use	Daytime	Evening Night
Receptor - Reis Family Mortuary	Residential	64.7	45.0 45.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Generator	No	50	80.6	25.0	0.0	
Tractor	No	40	84.0	25.0	0.0	
Front End Loader	No	40	79.1	25.0	0.0	
Backhoe	No	40	77.6	25.0	0.0	
Welder / Torch	No	40	74.0	25.0	0.0	

Results

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane N/A	86.6	78.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator N/A	86.7	83.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch N/A	80.0	76.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total N/A	90.0	89.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #2 ****

Description	Baselines (dBA)		
	Land Use	Daytime	Evening Night

 Receptor - Palm View Apartments Residential 60.4 45.0 45.0

Equipment

Description	Impact Device	Usage (%)	Actual Receptor		Estimated	
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Crane	No	16	80.6	25.0	0.0	
Generator	No	50	80.6	25.0	0.0	
Tractor	No	40	84.0	25.0	0.0	
Front End Loader	No	40		79.1	25.0	0.0
Backhoe	No	40		77.6	25.0	0.0
Welder / Torch	No	40		74.0	25.0	0.0

Results

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane N/A	86.6	78.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator N/A	86.7	83.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch N/A	80.0	76.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	90.0	89.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Receptor - Monterey Street	Residential	56.0	45.0	45.0

Equipment

Description	Impact Device	Usage (%)	Actual Receptor		Estimated	
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Crane	No	16	80.6	25.0	0.0	

Generator	No	50	80.6	25.0	0.0
Tractor	No	40	84.0	25.0	0.0
Front End Loader	No	40	79.1	25.0	0.0
Backhoe	No	40	77.6	25.0	0.0
Welder / Torch	No	40	74.0	25.0	0.0

Results

Equipment	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane N/A	86.6	78.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator N/A	86.7	83.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch N/A	80.0	76.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	90.0	89.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 08/14/2017
 Case Description: Nipomo Palm - Demolition

**** Receptor #1 ****

Description	Baselines (dBA)		
	Land Use	Daytime	Evening Night
Receptor - Reis Family Mortuary	Residential	64.7	45.0 45.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Dozer	No	40	81.7	25.0	0.0	
Tractor	No	40	84.0	25.0	0.0	
Front End Loader	No	40	79.1	25.0	0.0	
Backhoe	No	40	77.6	25.0	0.0	

Results

Equipment	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	95.6	88.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	87.7	83.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	95.6	92.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #2 ****

Description	Baselines (dBA)		
	Land Use	Daytime	Evening Night
Receptor - Palm View Apartments	Residential	60.4	45.0 45.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual		Receptor		Estimated	
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)		
Concrete Saw	No	20	89.6	0.0	0.0	0.0		
Dozer	No	40	81.7	0.0	0.0	0.0		
Tractor	No	40	84.0	0.0	0.0	0.0		
Front End Loader	No	40	79.1	0.0	0.0	0.0		
Backhoe	No	40	77.6	0.0	0.0	0.0		

Results

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	-7.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	-4.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	-4.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	-4.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	-4.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	0.0	2.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Receptor - Monterey Street	Residential	56.0	45.0	45.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual		Receptor		Estimated	
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)		
Concrete Saw	No	20	89.6	25.0	25.0	0.0		
Dozer	No	40	81.7	25.0	25.0	0.0		
Tractor	No	40	84.0	25.0	25.0	0.0		
Front End Loader	No	40	79.1	25.0	25.0	0.0		
Backhoe	No	40	77.6	25.0	25.0	0.0		

Results

Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq

Equipment	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw N/A	95.6	88.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer N/A	87.7	83.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	95.6	92.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

N/A

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 08/14/2017
 Case Description: Palm Nipomo - Grading

**** Receptor #1 ****

Description	Baselines (dBA)		
	Land Use	Daytime	Evening Night
Receptor - Reis Family Mortuary	Residential	64.7	45.0 45.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Paver	No	50	77.2	25.0	0.0	
Pavement Scarafier	No	20	89.5	25.0	0.0	
Front End Loader	No	40	79.1	25.0	0.0	
Backhoe	No	40	77.6	25.0	0.0	
Tractor	No	40	84.0	25.0	0.0	
Roller	No	20	80.0	25.0	0.0	
Auger Drill Rig	No	20	84.4	25.0	0.0	

Results

Equipment	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq		
Concrete Mixer Truck	84.8	80.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Paver	83.2	80.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Pavement Scarafier	95.5	88.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Front End Loader	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Backhoe	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Tractor	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Roller	86.0	79.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Auger Drill Rig	90.4	83.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Total	95.5	92.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

N/A

**** Receptor #2 ****

Description	Baselines (dBA)			
	Land Use	Daytime	Evening	Night
Receptor - Palm View Apartments	Residential		60.4	45.0 45.0

Equipment

Description	Impact Device	Usage (%)	Actual Receptor		Estimated	
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Concrete Mixer Truck	No	40	78.8	25.0	0.0	
Paver	No	50	77.2	25.0	0.0	
Pavement Scarafier	No	20	89.5	25.0	0.0	
Front End Loader	No	40	79.1	25.0	0.0	
Backhoe	No	40	77.6	25.0	0.0	
Tractor	No	40	84.0	25.0	0.0	
Roller	No	20	80.0	25.0	0.0	
Auger Drill Rig	No	20	84.4	25.0	0.0	

Results

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Mixer Truck N/A N/A	84.8	80.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver N/A	83.2	80.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pavement Scarafier N/A	95.5	88.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller N/A	86.0	79.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Auger Drill Rig N/A	90.4	83.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	95.5	92.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Description	Baselines (dBA)			
	Land Use	Daytime	Evening	Night
Receptor - Monterey Street	Residential	56.0	45.0	45.0

Equipment

Description	Impact Device	Usage (%)	Actual Receptor		Estimated	
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Concrete Mixer Truck	No	40	78.8	25.0	0.0	
Paver	No	50	77.2	25.0	0.0	
Pavement Scarafier	No	20	89.5	25.0	0.0	
Front End Loader	No	40	79.1	25.0	0.0	
Backhoe	No	40	77.6	25.0	0.0	
Tractor	No	40	84.0	25.0	0.0	
Roller	No	20	80.0	25.0	0.0	
Auger Drill Rig	No	20	84.4	0.0	0.0	

Results

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Mixer Truck N/A N/A	84.8	80.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver N/A	83.2	80.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pavement Scarafier N/A	95.5	88.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller N/A	86.0	79.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Auger Drill Rig N/A	-7.0		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	95.5	92.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 08/14/2017
 Case Description: Nipomo Palm - Paving

**** Receptor #1 ****

Description	Baselines (dBA)		
	Land Use	Daytime	Evening Night
Receptor - Reis Family Mortuary	Residential	64.7	45.0 45.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Paver	No	50	77.2	25.0	0.0	
Tractor	No	40	84.0	25.0	0.0	
Front End Loader	No	40	79.1	25.0	0.0	
Backhoe	No	40	77.6	25.0	0.0	
Roller	No	20	80.0	25.0	0.0	

Results

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Mixer Truck N/A N/A	84.8	80.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver N/A	83.2	80.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller N/A	86.0	79.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	90.0	89.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #2 ****

Description	Baselines (dBA)		
	Land Use	Daytime	Evening Night

 Receptor - Palm View Apartments Residential 60.4 45.0 45.0

Equipment

Description	Impact Device	Usage (%)	Actual		Receptor		Estimated	
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)		
Concrete Mixer Truck	No	40	40	78.8	25.0	25.0	0.0	
Paver	No	50	77.2	25.0	25.0	0.0		
Tractor	No	40	84.0	25.0	25.0	0.0		
Front End Loader	No	40	79.1	25.0	25.0	0.0		
Backhoe	No	40	77.6	25.0	25.0	0.0		
Roller	No	20	80.0	25.0	25.0	0.0		

Results

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Mixer Truck N/A N/A	84.8	80.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver N/A	83.2	80.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller N/A	86.0	79.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	90.0	89.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Receptor - Monterey Street	Residential	56.0	45.0	45.0

Equipment

Description	Impact Device	Usage (%)	Actual		Receptor		Estimated	
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)		
Concrete Mixer Truck	No	40	40	78.8	25.0	25.0	0.0	

Paver	No	50	77.2	25.0	0.0
Tractor	No	40	84.0	25.0	0.0
Front End Loader	No	40	79.1	25.0	0.0
Backhoe	No	40	77.6	25.0	0.0
Roller	No	20	80.0	0.0	0.0

Results

Equipment	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Mixer Truck	84.8	80.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	83.2	80.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	-7.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	90.0	89.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

N/A

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 08/14/2017
 Case Description: Palm Nipomo - Site Preparation

**** Receptor #1 ****

Description	Baselines (dBA)		
	Land Use	Daytime	Evening Night
Receptor - Reis Family Mortuary	Residential	64.7	45.0 45.0

Description	Equipment					
	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Grader	No	40	85.0	25.0	0.0	
Dozer	No	40	81.7	25.0	0.0	
Tractor	No	40	84.0	25.0	0.0	
Front End Loader	No	40	79.1	25.0	0.0	
Backhoe	No	40	77.6	25.0	0.0	

Equipment	Results												
	Noise Limits (dBA)						Noise Limit Exceedance (dBA)						
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night
Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader	91.0	87.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	87.7	83.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	91.0	91.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #2 ****

Description	Baselines (dBA)		
	Land Use	Daytime	Evening Night
Receptor - Palm View Apartments	Residential	60.4	45.0 45.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual		Receptor		Estimated	
			Lmax (dBA)	Leq (dBA)	Lmax (dBA)	Leq (dBA)	Distance (feet)	Shielding (dBA)
Grader	No	40	85.0		25.0		0.0	
Dozer	No	40	81.7		25.0		0.0	
Tractor	No	40	84.0		25.0		0.0	
Front End Loader	No	40	79.1		25.0		0.0	
Backhoe	No	40	77.6		25.0		0.0	

Results

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader N/A	91.0	87.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer N/A	87.7	83.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total N/A	91.0	91.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Receptor - Monterey Street	Residential	56.0	45.0	45.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual		Receptor		Estimated	
			Lmax (dBA)	Leq (dBA)	Lmax (dBA)	Leq (dBA)	Distance (feet)	Shielding (dBA)
Grader	No	40	85.0		25.0		0.0	
Dozer	No	40	81.7		25.0		0.0	
Tractor	No	40	84.0		25.0		0.0	
Front End Loader	No	40	79.1		25.0		0.0	
Backhoe	No	40	77.6		25.0		0.0	

Results

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader N/A	91.0	87.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer N/A	87.7	83.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	91.0	91.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 09/20/2017
 Case Description: Nipomo Palm - Arch Coating

**** Receptor #1 ****

Description	Baselines (dBA)		
	Land Use	Daytime	Evening Night
Receptor - Reis Family Mortuary	Residential	64.7	45.0 45.0

Description	Equipment					
	Impact Device	Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Compressor (air)	No	40	77.7	50.0	0.0	

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	77.7	73.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	77.7	73.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #2 ****

Description	Baselines (dBA)		
	Land Use	Daytime	Evening Night
Receptor - Palm View Apartments	Residential	60.4	45.0 45.0

Description	Equipment					
	Impact Device	Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Compressor (air)	No	40	77.7	50.0	0.0	

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	77.7	73.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	77.7	73.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Equipment Lmax Leq	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air) N/A	77.7	73.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total N/A	77.7	73.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Description	Baselines (dBA)			
	Land Use	Daytime	Evening	Night
Receptor - Monterey Street	Residential	56.0	45.0	45.0

Description	Equipment					
	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Receptor Lmax (dBA)	Estimated Distance Shielding (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40	77.7	25.0	0.0	

Equipment Lmax Leq	Results												
	Noise Limits (dBA)						Noise Limit Exceedance (dBA)						
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night
Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air) N/A	83.7	79.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total N/A	83.7	79.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 09/20/2017
 Case Description: Palm Nipomo - Construction

**** Receptor #1 ****

Description	Baselines (dBA)		
	Land Use	Daytime	Evening Night
Receptor - Reis Family Mortuary	Residential	64.7	45.0 45.0

Description	Equipment					
	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Crane	No	16	80.6	50.0	0.0	
Generator	No	50	80.6	50.0	0.0	
Tractor	No	40	84.0	50.0	0.0	
Front End Loader	No	40	79.1	50.0	0.0	
Backhoe	No	40	77.6	50.0	0.0	
Welder / Torch	No	40	74.0	50.0	0.0	

Equipment	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	80.6	72.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	80.6	77.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	79.1	75.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	74.0	70.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	84.0	83.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #2 ****

Description	Baselines (dBA)			
	Land Use	Daytime	Evening	Night

 Receptor - Palm View Apartments Residential 60.4 45.0 45.0

Equipment

Description	Impact Device	Usage (%)	Actual		Receptor		Estimated	
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)		
Crane	No	16	80.6	25.0	0.0			
Generator	No	50	80.6	25.0	0.0			
Tractor	No	40	84.0	25.0	0.0			
Front End Loader	No	40	79.1	25.0	0.0			
Backhoe	No	40	77.6	25.0	0.0			
Welder / Torch	No	40	74.0	25.0	0.0			

Results

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane N/A	86.6	78.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator N/A	86.7	83.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch N/A	80.0	76.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	90.0	89.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Receptor - Monterey Street	Residential	56.0	45.0	45.0

Equipment

Description	Impact Device	Usage (%)	Actual		Receptor		Estimated	
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)		
Crane	No	16	80.6	25.0	0.0			

Generator	No	50	80.6	25.0	0.0
Tractor	No	40	84.0	25.0	0.0
Front End Loader	No	40	79.1	25.0	0.0
Backhoe	No	40	77.6	25.0	0.0
Welder / Torch	No	40	74.0	25.0	0.0

Results

Equipment	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane N/A	86.6	78.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator N/A	86.7	83.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch N/A	80.0	76.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	90.0	89.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 09/20/2017
 Case Description: Nipomo Palm - Demolition

**** Receptor #1 ****

Description	Baselines (dBA)		
	Land Use	Daytime	Evening Night
Receptor - Reis Family Mortuary	Residential	64.7	45.0 45.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Dozer	No	40	81.7	50.0	0.0	
Tractor	No	40	84.0	50.0	0.0	
Front End Loader	No	40	79.1	50.0	0.0	
Backhoe	No	40	77.6	50.0	0.0	

Results

Equipment	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	89.6	82.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	79.1	75.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	89.6	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #2 ****

Description	Baselines (dBA)		
	Land Use	Daytime	Evening Night
Receptor - Palm View Apartments	Residential	60.4	45.0 45.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual		Receptor		Estimated	
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)		
Concrete Saw	No	20	89.6	0.0	0.0	0.0		
Dozer	No	40	81.7	0.0	0.0	0.0		
Tractor	No	40	84.0	0.0	0.0	0.0		
Front End Loader	No	40	79.1	0.0	0.0	0.0		
Backhoe	No	40	77.6	0.0	0.0	0.0		

Results

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	-7.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	-4.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	-4.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	-4.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	-4.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	0.0	2.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Receptor - Monterey Street	Residential	56.0	45.0	45.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual		Receptor		Estimated	
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)		
Concrete Saw	No	20	89.6	25.0	25.0	0.0		
Dozer	No	40	81.7	25.0	25.0	0.0		
Tractor	No	40	84.0	25.0	25.0	0.0		
Front End Loader	No	40	79.1	25.0	25.0	0.0		
Backhoe	No	40	77.6	25.0	25.0	0.0		

Results

Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq

Equipment	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw N/A	95.6	88.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer N/A	87.7	83.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	95.6	92.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

N/A

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 09/20/2017
 Case Description: Palm Nipomo - Grading

**** Receptor #1 ****

Description	Baselines (dBA)		
	Land Use	Daytime	Evening Night
Receptor - Reis Family Mortuary	Residential	64.7	45.0 45.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Paver	No	50	77.2	50.0	0.0	
Pavement Scarafier	No	20	89.5	50.0	0.0	
Front End Loader	No	40	79.1	50.0	0.0	
Backhoe	No	40	77.6	50.0	0.0	
Tractor	No	40	84.0	50.0	0.0	
Roller	No	20	80.0	50.0	0.0	
Auger Drill Rig	No	20	84.4	50.0	0.0	

Results

Equipment	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq		
Concrete Mixer Truck	78.8	74.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Paver	77.2	74.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Pavement Scarafier	89.5	82.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Front End Loader	79.1	75.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Backhoe	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Tractor	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Roller	80.0	73.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Auger Drill Rig	84.4	77.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Total	89.5	86.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

N/A

**** Receptor #2 ****

Description	Baselines (dBA)				
	Land Use	Daytime	Evening	Night	
Receptor - Palm View Apartments	Residential		60.4	45.0	45.0

Equipment

Description	Impact Device	Usage (%)	Actual Receptor		Estimated	
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Concrete Mixer Truck	No	40	78.8	25.0	0.0	
Paver	No	50	77.2	25.0	0.0	
Pavement Scarafier	No	20	89.5	25.0	0.0	
Front End Loader	No	40	79.1	25.0	0.0	
Backhoe	No	40	77.6	25.0	0.0	
Tractor	No	40	84.0	25.0	0.0	
Roller	No	20	80.0	25.0	0.0	
Auger Drill Rig	No	20	84.4	25.0	0.0	

Results

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Mixer Truck	84.8	80.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	83.2	80.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pavement Scarafier	95.5	88.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	86.0	79.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Auger Drill Rig	90.4	83.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	95.5	92.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Description	Baselines (dBA)			
	Land Use	Daytime	Evening	Night
Receptor - Monterey Street	Residential	56.0	45.0	45.0

Equipment

Description	Impact Device	Usage (%)	Actual Receptor		Estimated	
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Concrete Mixer Truck	No	40	78.8	25.0	0.0	
Paver	No	50	77.2	25.0	0.0	
Pavement Scarafier	No	20	89.5	25.0	0.0	
Front End Loader	No	40	79.1	25.0	0.0	
Backhoe	No	40	77.6	25.0	0.0	
Tractor	No	40	84.0	25.0	0.0	
Roller	No	20	80.0	25.0	0.0	
Auger Drill Rig	No	20	84.4	0.0	0.0	

Results

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Mixer Truck N/A N/A	84.8	80.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver N/A	83.2	80.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pavement Scarafier N/A	95.5	88.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller N/A	86.0	79.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Auger Drill Rig N/A	-7.0		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	95.5	92.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 09/20/2017
 Case Description: Nipomo Palm - Paving

**** Receptor #1 ****

Description	Baselines (dBA)			
	Land Use	Daytime	Evening	Night
Receptor - Reis Family Mortuary	Residential		64.7	45.0 45.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Paver	No	50	77.2	50.0	0.0	
Tractor	No	40	84.0	50.0	0.0	
Front End Loader	No	40	79.1	50.0	0.0	
Backhoe	No	40	77.6	50.0	0.0	
Roller	No	20	80.0	50.0	0.0	

Results

Equipment	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Mixer Truck	78.8	74.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	77.2	74.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	79.1	75.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	80.0	73.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	84.0	83.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #2 ****

Description	Baselines (dBA)			
	Land Use	Daytime	Evening	Night

 Receptor - Palm View Apartments Residential 60.4 45.0 45.0

Equipment

Description	Impact Device	Usage (%)	Actual		Receptor		Estimated	
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)		
Concrete Mixer Truck	No	40	40	78.8	25.0	25.0	0.0	
Paver	No	50	77.2	25.0	25.0	0.0		
Tractor	No	40	84.0	25.0	25.0	0.0		
Front End Loader	No	40	79.1	25.0	25.0	0.0		
Backhoe	No	40	77.6	25.0	25.0	0.0		
Roller	No	20	80.0	25.0	25.0	0.0		

Results

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Mixer Truck N/A N/A	84.8	80.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver N/A	83.2	80.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller N/A	86.0	79.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	90.0	89.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Receptor - Monterey Street	Residential	56.0	45.0	45.0

Equipment

Description	Impact Device	Usage (%)	Actual		Receptor		Estimated	
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)		
Concrete Mixer Truck	No	40	40	78.8	25.0	25.0	0.0	

Paver	No	50	77.2	25.0	0.0
Tractor	No	40	84.0	25.0	0.0
Front End Loader	No	40	79.1	25.0	0.0
Backhoe	No	40	77.6	25.0	0.0
Roller	No	20	80.0	0.0	0.0

Results

Equipment	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Mixer Truck	84.8	80.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	83.2	80.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	-7.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	90.0	89.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 09/20/2017
 Case Description: Palm Nipomo - Site Preparation

**** Receptor #1 ****

Description	Baselines (dBA)		
	Land Use	Daytime	Evening Night
Receptor - Reis Family Mortuary	Residential	64.7	45.0 45.0

Description	Equipment					
	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Grader	No	40	85.0	50.0	0.0	
Dozer	No	40	81.7	50.0	0.0	
Tractor	No	40	84.0	50.0	0.0	
Front End Loader	No	40	79.1	50.0	0.0	
Backhoe	No	40	77.6	50.0	0.0	

Equipment	Results												
	Noise Limits (dBA)						Noise Limit Exceedance (dBA)						
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night
Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader	85.0	81.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	79.1	75.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	85.0	85.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #2 ****

Description	Baselines (dBA)		
	Land Use	Daytime	Evening Night
Receptor - Palm View Apartments	Residential	60.4	45.0 45.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual		Receptor		Estimated	
			Lmax (dBA)	Leq (dBA)	Lmax (dBA)	Leq (dBA)	Distance (feet)	Shielding (dBA)
Grader	No	40	85.0		25.0		0.0	
Dozer	No	40	81.7		25.0		0.0	
Tractor	No	40	84.0		25.0		0.0	
Front End Loader	No	40	79.1		25.0		0.0	
Backhoe	No	40	77.6		25.0		0.0	

Results

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader N/A	91.0	87.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer N/A	87.7	83.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total N/A	91.0	91.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Receptor - Monterey Street	Residential	56.0	45.0	45.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual		Receptor		Estimated	
			Lmax (dBA)	Leq (dBA)	Lmax (dBA)	Leq (dBA)	Distance (feet)	Shielding (dBA)
Grader	No	40	85.0		25.0		0.0	
Dozer	No	40	81.7		25.0		0.0	
Tractor	No	40	84.0		25.0		0.0	
Front End Loader	No	40	79.1		25.0		0.0	
Backhoe	No	40	77.6		25.0		0.0	

Results

Equipment	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader N/A	91.0	87.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer N/A	87.7	83.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	91.0	91.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 09/20/2017
 Case Description: Nipomo Palm - Arch Coating

**** Receptor #1 ****

Description	Baselines (dBA)			
	Land Use	Daytime	Evening	Night
Receptor - Reis Family Mortuary	Residential		64.7	45.0 45.0

Description	Equipment					
	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40	77.7	77.7	100.0	0.0

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	71.6	67.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	71.6	67.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #2 ****

Description	Baselines (dBA)			
	Land Use	Daytime	Evening	Night
Receptor - Palm View Apartments	Residential		60.4	45.0 45.0

Description	Equipment					
	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40	77.7	77.7	50.0	0.0

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	71.6	67.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Equipment Lmax Leq	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air) N/A	77.7	73.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total N/A	77.7	73.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Description	Baselines (dBA)			
	Land Use	Daytime	Evening	Night
Receptor - Monterey Street	Residential	56.0	45.0	45.0

Description	Equipment				
	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Receptor Lmax (dBA)	Estimated Distance Shielding (dBA)
Compressor (air)	No	40	77.7	25.0	0.0

Equipment Lmax Leq	Results												
	Noise Limits (dBA)						Noise Limit Exceedance (dBA)						
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night
Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air) N/A	83.7	79.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total N/A	83.7	79.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 09/20/2017
 Case Description: Palm Nipomo - Construction

**** Receptor #1 ****

Description	Baselines (dBA)			
	Land Use	Daytime	Evening	Night
Receptor - Reis Family Mortuary	Residential		64.7	45.0 45.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Generator	No	50	80.6	100.0	0.0	
Tractor	No	40	84.0	100.0	0.0	
Front End Loader	No	40		79.1	100.0	0.0
Backhoe	No	40		77.6	100.0	0.0
Welder / Torch	No	40		74.0	100.0	0.0

Results

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane N/A	74.5	66.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator N/A	74.6	71.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	78.0	74.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	73.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	71.5	67.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch N/A	68.0	64.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total N/A	78.0	77.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #2 ****

Description	Baselines (dBA)			
	Land Use	Daytime	Evening	Night

 Receptor - Palm View Apartments Residential 60.4 45.0 45.0

Equipment

Description	Impact Device	Usage (%)	Actual Receptor		Estimated	
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Crane	No	16	80.6	25.0	0.0	
Generator	No	50	80.6	25.0	0.0	
Tractor	No	40	84.0	25.0	0.0	
Front End Loader	No	40		79.1	25.0	0.0
Backhoe	No	40		77.6	25.0	0.0
Welder / Torch	No	40		74.0	25.0	0.0

Results

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane N/A	86.6	78.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator N/A	86.7	83.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch N/A	80.0	76.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total N/A	90.0	89.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Receptor - Monterey Street	Residential	56.0	45.0	45.0

Equipment

Description	Impact Device	Usage (%)	Actual Receptor		Estimated	
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Crane	No	16	80.6	25.0	0.0	

Generator	No	50	80.6	25.0	0.0
Tractor	No	40	84.0	25.0	0.0
Front End Loader	No	40	79.1	25.0	0.0
Backhoe	No	40	77.6	25.0	0.0
Welder / Torch	No	40	74.0	25.0	0.0

Results

Equipment	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane N/A	86.6	78.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator N/A	86.7	83.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch N/A	80.0	76.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	90.0	89.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 09/20/2017
 Case Description: Nipomo Palm - Demolition

**** Receptor #1 ****

Description	Baselines (dBA)		
	Land Use	Daytime	Evening Night
Receptor - Reis Family Mortuary	Residential	64.7	45.0 45.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Dozer	No	40	81.7	100.0	0.0	
Tractor	No	40	84.0	100.0	0.0	
Front End Loader	No	40	79.1	100.0	0.0	
Backhoe	No	40	77.6	100.0	0.0	

Results

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	83.6	76.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	75.6	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	78.0	74.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	73.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	71.5	67.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	83.6	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #2 ****

Description	Baselines (dBA)		
	Land Use	Daytime	Evening Night
Receptor - Palm View Apartments	Residential	60.4	45.0 45.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual		Receptor		Estimated	
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)		
Concrete Saw	No	20	89.6	0.0	0.0	0.0		
Dozer	No	40	81.7	0.0	0.0	0.0		
Tractor	No	40	84.0	0.0	0.0	0.0		
Front End Loader	No	40	79.1	0.0	0.0	0.0		
Backhoe	No	40	77.6	0.0	0.0	0.0		

Results

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	-7.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	-4.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	-4.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	-4.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	-4.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	0.0	2.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Receptor - Monterey Street	Residential	56.0	45.0	45.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual		Receptor		Estimated	
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)		
Concrete Saw	No	20	89.6	25.0	25.0	0.0		
Dozer	No	40	81.7	25.0	25.0	0.0		
Tractor	No	40	84.0	25.0	25.0	0.0		
Front End Loader	No	40	79.1	25.0	25.0	0.0		
Backhoe	No	40	77.6	25.0	25.0	0.0		

Results

Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq

Equipment	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw N/A	95.6	88.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer N/A	87.7	83.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	95.6	92.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

N/A

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 09/20/2017
 Case Description: Palm Nipomo - Grading

**** Receptor #1 ****

Description	Baselines (dBA)		
	Land Use	Daytime	Evening Night
Receptor - Reis Family Mortuary	Residential	64.7	45.0 45.0

Description	Equipment					
	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Concrete Mixer Truck	No	40	78.8	100.0	0.0	
Paver	No	50	77.2	100.0	0.0	
Pavement Scarafier	No	20	89.5	100.0	0.0	
Front End Loader	No	40	79.1	100.0	0.0	
Backhoe	No	40	77.6	100.0	0.0	
Tractor	No	40	84.0	100.0	0.0	
Roller	No	20	80.0	100.0	0.0	
Auger Drill Rig	No	20	84.4	100.0	0.0	

Equipment	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Mixer Truck	72.8	68.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	71.2	68.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pavement Scarafier	83.5	76.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	73.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	71.5	67.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	78.0	74.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	74.0	67.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Auger Drill Rig	78.3	71.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	83.5	80.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

N/A

**** Receptor #2 ****

Description	Baselines (dBA)				
	Land Use	Daytime	Evening	Night	
Receptor - Palm View Apartments	Residential		60.4	45.0	45.0

Equipment

Description	Impact Device	Usage (%)	Actual Receptor		Estimated	
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Concrete Mixer Truck	No	40	78.8	25.0	0.0	
Paver	No	50	77.2	25.0	0.0	
Pavement Scarafier	No	20	89.5	25.0	0.0	
Front End Loader	No	40	79.1	25.0	0.0	
Backhoe	No	40	77.6	25.0	0.0	
Tractor	No	40	84.0	25.0	0.0	
Roller	No	20	80.0	25.0	0.0	
Auger Drill Rig	No	20	84.4	25.0	0.0	

Results

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Mixer Truck N/A N/A	84.8	80.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver N/A	83.2	80.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pavement Scarafier N/A	95.5	88.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller N/A	86.0	79.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Auger Drill Rig N/A	90.4	83.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total N/A	95.5	92.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Description	Baselines (dBA)			
	Land Use	Daytime	Evening	Night
Receptor - Monterey Street	Residential	56.0	45.0	45.0

Equipment

Description	Impact Device	Usage (%)	Actual Receptor		Estimated	
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Concrete Mixer Truck	No	40	78.8	25.0	0.0	
Paver	No	50	77.2	25.0	0.0	
Pavement Scarafier	No	20	89.5	25.0	0.0	
Front End Loader	No	40	79.1	25.0	0.0	
Backhoe	No	40	77.6	25.0	0.0	
Tractor	No	40	84.0	25.0	0.0	
Roller	No	20	80.0	25.0	0.0	
Auger Drill Rig	No	20	84.4	0.0	0.0	

Results

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Mixer Truck N/A N/A	84.8	80.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver N/A	83.2	80.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pavement Scarafier N/A	95.5	88.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller N/A	86.0	79.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Auger Drill Rig N/A	-7.0		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	95.5	92.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 09/20/2017
 Case Description: Nipomo Palm - Paving

**** Receptor #1 ****

Description	Baselines (dBA)			
	Land Use	Daytime	Evening	Night
Receptor - Reis Family Mortuary	Residential		64.7	45.0 45.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Paver	No	50	77.2	100.0	0.0	
Tractor	No	40	84.0	100.0	0.0	
Front End Loader	No	40	79.1	100.0	0.0	
Backhoe	No	40	77.6	100.0	0.0	
Roller	No	20	80.0	100.0	0.0	

Results

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Mixer Truck N/A N/A	72.8	68.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver N/A	71.2	68.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	78.0	74.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	73.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	71.5	67.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller N/A	74.0	67.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total N/A	78.0	77.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #2 ****

Description	Baselines (dBA)			
	Land Use	Daytime	Evening	Night

 Receptor - Palm View Apartments Residential 60.4 45.0 45.0

Equipment

Description	Impact Device	Usage (%)	Actual Receptor		Estimated	
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Concrete Mixer Truck	No	40	40	78.8	25.0	0.0
Paver	No	50	77.2	25.0	0.0	
Tractor	No	40	84.0	25.0	0.0	
Front End Loader	No	40	79.1	25.0	0.0	
Backhoe	No	40	77.6	25.0	0.0	
Roller	No	20	80.0	25.0	0.0	

Results

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Mixer Truck N/A N/A	84.8	80.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver N/A	83.2	80.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller N/A	86.0	79.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total N/A	90.0	89.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Receptor - Monterey Street	Residential	56.0	45.0	45.0

Equipment

Description	Impact Device	Usage (%)	Actual Receptor		Estimated	
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Concrete Mixer Truck	No	40	78.8	25.0	0.0	

Paver	No	50	77.2	25.0	0.0
Tractor	No	40	84.0	25.0	0.0
Front End Loader	No	40	79.1	25.0	0.0
Backhoe	No	40	77.6	25.0	0.0
Roller	No	20	80.0	0.0	0.0

Results

Equipment	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Mixer Truck	84.8	80.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	83.2	80.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	-7.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	90.0	89.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 09/20/2017
 Case Description: Palm Nipomo - Site Preparation

**** Receptor #1 ****

Description	Baselines (dBA)		
	Land Use	Daytime	Evening Night
Receptor - Reis Family Mortuary	Residential	64.7	45.0 45.0

Description	Equipment					
	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Grader	No	40	85.0	100.0	0.0	
Dozer	No	40	81.7	100.0	0.0	
Tractor	No	40	84.0	100.0	0.0	
Front End Loader	No	40	79.1	100.0	0.0	
Backhoe	No	40	77.6	100.0	0.0	

Equipment	Results												
	Noise Limits (dBA)						Noise Limit Exceedance (dBA)						
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night
Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader	79.0	75.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													
Dozer	75.6	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													
Tractor	78.0	74.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													
Front End Loader	73.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													
Backhoe	71.5	67.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													
Total	79.0	79.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													

**** Receptor #2 ****

Description	Baselines (dBA)		
	Land Use	Daytime	Evening Night
Receptor - Palm View Apartments	Residential	60.4	45.0 45.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Receptor		Estimated	
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Grader	No	40	85.0		25.0	0.0
Dozer	No	40	81.7		25.0	0.0
Tractor	No	40	84.0		25.0	0.0
Front End Loader	No	40		79.1	25.0	0.0
Backhoe	No	40	77.6		25.0	0.0

Results

Equipment Lmax Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader N/A	91.0	87.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer N/A	87.7	83.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total N/A	91.0	91.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Receptor - Monterey Street	Residential	56.0	45.0	45.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Receptor		Estimated	
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Grader	No	40	85.0		25.0	0.0
Dozer	No	40	81.7		25.0	0.0
Tractor	No	40	84.0		25.0	0.0
Front End Loader	No	40		79.1	25.0	0.0
Backhoe	No	40	77.6		25.0	0.0

Results

Equipment	Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader N/A	91.0	87.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer N/A	87.7	83.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor N/A	90.0	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader N/A	85.1	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe N/A	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	91.0	91.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

DNL Calculator

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Guidelines

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- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	<input type="text"/>
Record Date	<input type="text" value="mm/dd/yyyy"/>
User's Name	<input type="text"/>

Road # 1 Name:	<input type="text" value="Palm Street-Nipomo to Broad (Existing)"/>
-----------------------	---

Road #1			
Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input type="checkbox"/>	Heavy Trucks <input type="checkbox"/>
Effective Distance	<input type="text" value="25"/>	<input type="text"/>	<input type="text"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text"/>	<input type="text"/>

Average Speed	25		
Average Daily Trips (ADT)	2238		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	59.4		
Calculate Road #1 DNL	59.4	Reset	

Road # 2 Name: Nipomo Street-Palm to Monterey (Existing)

Road #2

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input type="checkbox"/>	Heavy Trucks <input type="checkbox"/>
Effective Distance	25		
Distance to Stop Sign			
Average Speed	25		
Average Daily Trips (ADT)	4954		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	62.8		
Calculate Road #2 DNL	62.8	Reset	

Road # 3 Name: Broad Street-Palm to Monterey (Existing)

Road #3

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input type="checkbox"/>	Heavy Trucks <input type="checkbox"/>
Effective Distance	25		
Distance to Stop Sign			

Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text"/>	<input type="text"/>
Average Daily Trips (ADT)	<input type="text" value="2676"/>	<input type="text"/>	<input type="text"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text"/>	<input type="text"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Vehicle DNL	<input type="text" value="60.2"/>	<input type="text"/>	<input type="text"/>
Calculate Road #3 DNL	<input type="text" value="60.2"/>	<input type="text" value="Reset"/>	

Road # 4 Name:

Road #4

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input type="checkbox"/>	Heavy Trucks <input type="checkbox"/>
Effective Distance	<input type="text" value="25"/>	<input type="text"/>	<input type="text"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text"/>	<input type="text"/>
Average Daily Trips (ADT)	<input type="text" value="1197"/>	<input type="text"/>	<input type="text"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text"/>	<input type="text"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Vehicle DNL	<input type="text" value="56.7"/>	<input type="text"/>	<input type="text"/>
Calculate Road #4 DNL	<input type="text" value="56.7"/>	<input type="text" value="Reset"/>	

Road # 5 Name:

Road #5

Vehicle Type	Cars <input type="checkbox"/>	Medium Trucks <input type="checkbox"/>	Heavy Trucks <input type="checkbox"/>
Effective Distance	<input type="text"/>	<input type="text"/>	<input type="text"/>

Effective Distance

Distance to Stop Sign

Average Speed

Average Daily Trips (ADT)

Night Fraction of ADT

Road Gradient (%)

Vehicle DNL

Calculate Road #5 DNL

Reset

Add Road Source

Add Rail Source

Airport Noise Level

Loud Impulse Sounds?

 Yes NoCombined DNL for all
Road and Rail sources

0

Combined DNL including Airport

Site DNL with Loud Impulse Sound

Calculate

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**

- **Contact your Field or Regional Environmental Officer** (</programs/environmental-review/hud-environmental-staff-contacts/>)
- Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
- Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
- Incorporate natural or man-made barriers. See *The Noise Guidebook* (</resource/313/hud-noise-guidebook/>)
- Construct noise barrier. See the **Barrier Performance Module** (</programs/environmental-review/bpm-calculator/>)

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (</resource/3822/day-night-noise-level-assessment-tool-user-guide/>)

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DNL Calculator

Site ID	<input type="text"/>
Record Date	<input type="text" value="mm/dd/yyyy"/>
User's Name	<input type="text"/>

Road # 1 Name:	<input type="text" value="Palm Street-Nipomo to Broad (Existing Plus Project)"/>
-----------------------	--

Road #1	Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input type="checkbox"/>	Heavy Trucks <input type="checkbox"/>
Effective Distance	<input type="text" value="25"/>	<input type="text"/>	<input type="text"/>	
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>	
Average Speed	<input type="text" value="25"/>	<input type="text"/>	<input type="text"/>	
Average Daily Trips (ADT)	<input type="text" value="2794"/>	<input type="text"/>	<input type="text"/>	
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text"/>	<input type="text"/>	
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text"/>	
Vehicle DNL	<input type="text" value="60.4"/>	<input type="text"/>	<input type="text"/>	
Calculate Road #1 DNL	<input type="text" value="60.4"/>	<input type="text" value="Reset"/>	<input type="text"/>	

Road # 2 Name:	<input type="text" value="Nipomo Street-Palm to Monterey (Existing plus Project)"/>
-----------------------	---

Road #2	Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input type="checkbox"/>	Heavy Trucks <input type="checkbox"/>
Effective Distance	<input type="text" value="25"/>	<input type="text"/>	<input type="text"/>	

Effective Distance	25		
Distance to Stop Sign			
Average Speed	25		
Average Daily Trips (ADT)	5722		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	63.5		
Calculate Road #2 DNL	63.5	Reset	

Road # 3 Name: Broad Street-Palm to Monterey (Existing plus Project)

Road #3

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input type="checkbox"/>	Heavy Trucks <input type="checkbox"/>
Effective Distance	25		
Distance to Stop Sign			
Average Speed	25		
Average Daily Trips (ADT)	2676		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	60.2		
Calculate Road #3 DNL	60.2	Reset	

Road # 4 Name: Monterey Street-Nipomo to Broad (Existing Plus Project)

Road #4

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input type="checkbox"/>	Heavy Trucks <input type="checkbox"/>
Effective Distance	25		
Distance to Stop Sign			
Average Speed	25		
Average Daily Trips (ADT)	1223		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	56.8		
Calculate Road #4 DNL	56.8	Reset	

Vehicles with a Gross Vehicle Weight (GVW) of more than 26,000 pounds and three or more axles. Buses that can carry more than 15 seated passengers count as heavy trucks, as well as semi-trucks (18 wheelers), Class A recreational vehicles, dump trucks, and heavy duty commercial vehicles following the definition previously stated.

Airport Noise Level

Loud Impulse Sounds?

 Yes NoCombined DNL for all
Road and Rail sources

Combined DNL including Airport

Site DNL with Loud Impulse Sound

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - **Contact your Field or Regional Environmental Officer** (</programs/environmental-review/hud-environmental-staff-contacts/>)
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Tools and Guidance

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DNL Calculator

Site ID	<input type="text"/>
Record Date	<input type="text" value="mm/dd/yyyy"/> 
User's Name	<input type="text"/>

Road # 1 Name:	Palm Street-Nipomo to Broad (Cumulative)
-----------------------	---

Road #1			
Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input type="checkbox"/>	Heavy Trucks <input type="checkbox"/>
Effective Distance	<input type="text" value="25"/>	<input type="text"/>	<input type="text"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text"/>	<input type="text"/>

Average Speed	25		
Average Daily Trips (ADT)	2565		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	60		
Calculate Road #1 DNL	60	Reset	

Road # 2 Name: Nipomo Street-Palm to Monterey (Cumulative)

Road #2

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input type="checkbox"/>	Heavy Trucks <input type="checkbox"/>
Effective Distance	25		
Distance to Stop Sign			
Average Speed	25		
Average Daily Trips (ADT)	6418		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	64		
Calculate Road #2 DNL	64	Reset	

Road # 3 Name: Broad Street-Palm to Monterey (Cumulative)

Road #3

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input type="checkbox"/>	Heavy Trucks <input type="checkbox"/>
Effective Distance	25		
Distance to Stop Sign			

Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text"/>	<input type="text"/>
Average Daily Trips (ADT)	<input type="text" value="3159"/>	<input type="text"/>	<input type="text"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text"/>	<input type="text"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Vehicle DNL	<input type="text" value="60.9"/>	<input type="text"/>	<input type="text"/>
Calculate Road #3 DNL	<input type="text" value="60.9"/>	<input type="text" value="Reset"/>	

Road # 4 Name:

Road #4

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input type="checkbox"/>	Heavy Trucks <input type="checkbox"/>
Effective Distance	<input type="text" value="25"/>	<input type="text"/>	<input type="text"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text"/>	<input type="text"/>
Average Daily Trips (ADT)	<input type="text" value="1421"/>	<input type="text"/>	<input type="text"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text"/>	<input type="text"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Vehicle DNL	<input type="text" value="57.4"/>	<input type="text"/>	<input type="text"/>
Calculate Road #4 DNL	<input type="text" value="57.4"/>	<input type="text" value="Reset"/>	

Airport Noise Level

Loud Impulse Sounds?

Yes No

Combined DNL for all Road and Rail sources	<input type="text" value="0"/>
Combined DNL including Airport	<input type="text"/>
Site DNL with Loud Impulse Sound	<input type="text"/>

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

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DNL Calculator

Site ID	<input type="text"/>
Record Date	<input type="text" value="mm/dd/yyyy"/>
User's Name	<input type="text"/>

Road # 1 Name:	<input type="text" value="Palm Street-Nipomo to Broad (Cumulative Plus Project)"/>
-----------------------	--

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input type="checkbox"/>	Heavy Trucks <input type="checkbox"/>
Effective Distance	<input type="text" value="25"/>	<input type="text"/>	<input type="text"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text"/>	<input type="text"/>

Average Speed	25		
Average Daily Trips (ADT)	3121		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	60.8		
Calculate Road #1 DNL	60.8	Reset	

Road # 2 Name: Nipomo Street-Palm to Monterey (Cumulative Plus Project)

Road #2

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input type="checkbox"/>	Heavy Trucks <input type="checkbox"/>
Effective Distance	25		
Distance to Stop Sign			
Average Speed	25		
Average Daily Trips (ADT)	7186		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	64.5		
Calculate Road #2 DNL	64.5	Reset	

Road # 3 Name: Broad Street-Palm to Monterey (Cumulative plus Project)

Road #3

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input type="checkbox"/>	Heavy Trucks <input type="checkbox"/>
Effective Distance	25		
Distance to Stop Sign			

Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text"/>	<input type="text"/>
Average Daily Trips (ADT)	<input type="text" value="3159"/>	<input type="text"/>	<input type="text"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text"/>	<input type="text"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Vehicle DNL	<input type="text" value="60.9"/>	<input type="text"/>	<input type="text"/>
Calculate Road #3 DNL	<input type="text" value="60.9"/>	<input type="text" value="Reset"/>	

Road # 4 Name:

Road #4

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input type="checkbox"/>	Heavy Trucks <input type="checkbox"/>
Effective Distance	<input type="text" value="25"/>	<input type="text"/>	<input type="text"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text"/>	<input type="text"/>
Average Daily Trips (ADT)	<input type="text" value="1447"/>	<input type="text"/>	<input type="text"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text"/>	<input type="text"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Vehicle DNL	<input type="text" value="57.5"/>	<input type="text"/>	<input type="text"/>
Calculate Road #4 DNL	<input type="text" value="57.5"/>	<input type="text" value="Reset"/>	

Airport Noise Level

Loud Impulse Sounds?

Yes No

Combined DNL for all Road and Rail sources	<input type="text" value="0"/>
Combined DNL including Airport	<input type="text"/>
Site DNL with Loud Impulse Sound	<input type="text"/>

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If your site DNL is in Excess of 65 decibels, your options are:

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Tools and Guidance

[Day/Night Noise Level Assessment Tool User Guide](/resource/3822/day-night-noise-level-assessment-tool-user-guide/) (</resource/3822/day-night-noise-level-assessment-tool-user-guide/>)

[Day/Night Noise Level Assessment Tool Flowcharts](/resource/3823/day-night-noise-level-assessment-tool-flowcharts/) (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

Appendix D

Transportation Impact Study

Palm/Nipomo Parking Structure Project

Transportation Impact Study

Prepared For: City of San Luis Obispo

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Executive Summary

This study evaluates the potential transportation impacts of the Palm/Nipomo parking structure project located in the City of San Luis Obispo. The project consists of the development of a new 445-space parking structure, 5,000 square feet of commercial space, and the relocation of the San Luis Obispo Little Theatre on the southeastern corner of Nipomo Street and Palm Street. The structure would replace an existing 77-space surface parking lot. This study also evaluates the Mission Plaza expansion, which has the potential to change travel patterns in the study area.

Conclusion #1: All of the study intersections and segments operate acceptably for bicycles, transit, and autos under Existing and Existing Plus Project Conditions. The addition of project trips has an insignificant effect on vehicle queues at the study intersections.

We recommend the following frontage improvements to support convenient pedestrian travel:

- Recommendation #1: Install a high visibility crosswalk with directional curb ramps across Nipomo Street from the northwest corner of Dana Street/Nipomo Street to the southwest corner of the parking structure.
- Recommendation #2: Install high visibility crosswalk with directional curb ramps from the southeast corner of Monterey Street/Nipomo Street across Nipomo Street.
- Recommendation #3: Install standard crosswalks with directional curb ramps across Monterey Street and Dana Street where they intersect with Nipomo Street.
- Recommendation #4: Reduce the curb radii on the southwest corner of Dana Street/Nipomo Street and northeast corner of Monterey Street/Nipomo Street.

Nipomo Street is classified as a local street in the City's Circulation Element, with an average daily traffic (ADT) threshold of 5,000 vehicles. The 2016 traffic count collected by the City shows an ADT of 4,954 vehicles.

Conclusion #2: The addition of project traffic would exceed the 5,000 vehicle threshold, as would the Mission Plaza expansion if it closed or partially closed.

- Recommendation #5: The City should consider reclassifying Nipomo Street to be a commercial collector, a designation that is more consistent with its current and future use.

Suggested for Consideration: It may be necessary to amend the Bicycle Transportation Plan to accommodate the Mission Plaza Expansion. It may be desirable to focus bicycle traffic to the Broad Street 'dogleg' instead of Nipomo Street, where vehicular traffic will increase due to the proposed parking structure.

Conclusion #3: All study intersections have lower collision rates than the state average and none are flagged in the City's recent Traffic Safety Reports.

Conclusion #4: All mitigation measures required are reflected in Existing Plus Project recommendations, there are no additional recommendations for Cumulative Plus Project Conditions.

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Introduction and Background

This study evaluates the potential transportation impacts of the Palm/Nipomo Parking structure project located in the City of San Luis Obispo. The project consists of the development of a new 445-space parking structure, 5,000 square feet of commercial space, and the relocation of the San Luis Obispo Little Theatre on the southeastern corner of Nipomo Street and Palm Street. The structure would replace an existing 77-space surface parking lot. This analysis will also include an evaluation of the Mission Plaza expansion, which has the potential to change travel patterns in the study area.

The project's location and study intersections are shown on **Figure 1**, while **Figure 2** depicts the project's site plan. Study intersections were identified in consultation with City staff. The following intersections were analyzed during the weekday evening (4-6 PM) time period:

1. Palm Street/Nipomo Street
2. Palm Street/Project Driveway
3. Project Driveway/Nipomo Street
4. Monterey Street/Nipomo Street

Vehicular, pedestrian, and bicycle levels of service are reported for each study intersection consistent with the City's Multimodal Transportation Impact Guidelines. The study segments were identified in consultation with City staff consistent with City policies. Four roadway segments were analyzed for bicycle, pedestrian, transit, and auto level of service during the PM peak hour:

1. Palm Street (Nipomo to Broad)
2. Nipomo Street (Palm to Monterey)
3. Broad Street (Palm to Monterey)
4. Monterey Street (Nipomo to Broad)

The study locations were evaluated under these scenarios:

1. **Existing Conditions** reflects 2016 traffic counts and the existing transportation network.
2. **Existing Plus Project** adds Project generated traffic to Existing Conditions volumes.
3. **Cumulative Conditions** represents future traffic conditions reflective of the buildout of land uses in the area, not including the proposed Project.
4. **Cumulative Plus Project** represents future traffic conditions reflective of the buildout of land uses in the area, including the proposed Project.

Each scenario is described in more detail in the appropriate chapter.

BACKGROUND

The proposed parking structure and the Mission Plaza expansion have been studied extensively. This section briefly summarizes the past studies and their conclusions.

Transportation Impact Studies

The *City of San Luis Obispo Mission Plaza Dogleg Project Technical Memorandum* (Kimley-Horn and Associates, 2001) evaluated the impact of a full closure of the Mission Plaza dogleg. The study noted that no major operational impacts would result to studied intersections, which all operated at LOS B or better with the full Mission Plaza dogleg closure. The study notes that the closure would result in a loss of driveway access to one residential property, reduce the on-street parking supply by 20 spaces, and potentially create ‘dead ends’ in the circulation pattern.

The *Palm/Nipomo Parking Structure Transportation Impact Analysis Draft Report* (Draft TIA, Fehr & Peers, 2012) evaluated the transportation impacts of constructing a new 450-space parking structure and 5,000 square feet of commercial or office uses. The Draft TIA studied six intersections and the two parking structure entrances and concludes that all would operate acceptably at LOS B or better with acceptable queueing. This study was based on traffic counts collected in 2010.

Both of the above studies were conducted under the City’s 1994 Circulation Element, which relied on vehicular level of service to describe transportation conditions. The City’s 2014 Circulation Element describes transportation operating conditions in terms of level of service for autos, pedestrians, bicycles, and transit riders.

Traffic Volume Changes

The traffic counts used in the past studies described above were compared to more recent counts collected by the City where overlapping data is available. Table 1 summarizes traffic volume changes from 2001, 2010, 2014, and 2016.

Table 1: Intersection & Segment Comparison				
Intersection	PM Peak Hour Entering Volume			
	<i>2001</i>	<i>2010</i>	<i>2014</i>	<i>2016</i>
Palm/Chorro	1,219	895	759	836
Segment	Average Daily Traffic			
	<i>2001</i>	<i>2014</i>	<i>2016</i>	
Palm between Nipomo and Broad	2,825	2,159	2,238	
Chorro between Monterey and Palm	7,993	4,794	5,335	

Table 1 shows a substantial decrease in traffic volumes from 2001 to 2016 at the locations where counts are available. This indicates that the prior studies’ vehicular LOS analysis and conclusions would also apply to 2016 conditions.

Parking Studies

The *Parking Services Organizational Assessment* (Walker Parking Consultants, 2014) included the following near-term recommendation:

Reevaluate the City’s goals – and plans for additional development in the downtown – to determine at what point and under what scenarios the Palm/Nipomo Parking Structure as currently envisioned might exceed (a baseline of) 60% capacity on a design day in order to determine:

- If or when the parking structure should be built;

- The number of spaces that are necessary to be provided within the new (Palm/Nipomo) Parking Structure; and
- The extent to which more cost effective alternatives could be used, such as investments in parking guidance systems or other technology, to accommodate parking demand more effectively than building more parking spaces at the proposed location.

The *Palm/Nipomo Parking Structure Memorandum of Findings* (Walker Parking Consultants, January 5, 2016) also estimated the future demand for the proposed Palm/Nipomo Parking Structure. Two planning horizons were evaluated: Phase I included approved projects, and Phase II included potential future projects that have not been proposed. The new structure would have a surplus of 205 parking spaces under Phase I and a surplus of 45 parking spaces in Phase II.

The memorandum offers the following considerations:

- The planned inventory of 445 spaces is significantly more than necessary to accommodate Phase I conditions which include demand from existing and approved projects.
- The projects included in the Phase II estimates assume that significant development would occur within walking distance of the new structure and that these new developments would be built with little to no parking on site. If the projected Phase II development were not to occur as envisioned, the structure could be underutilized.

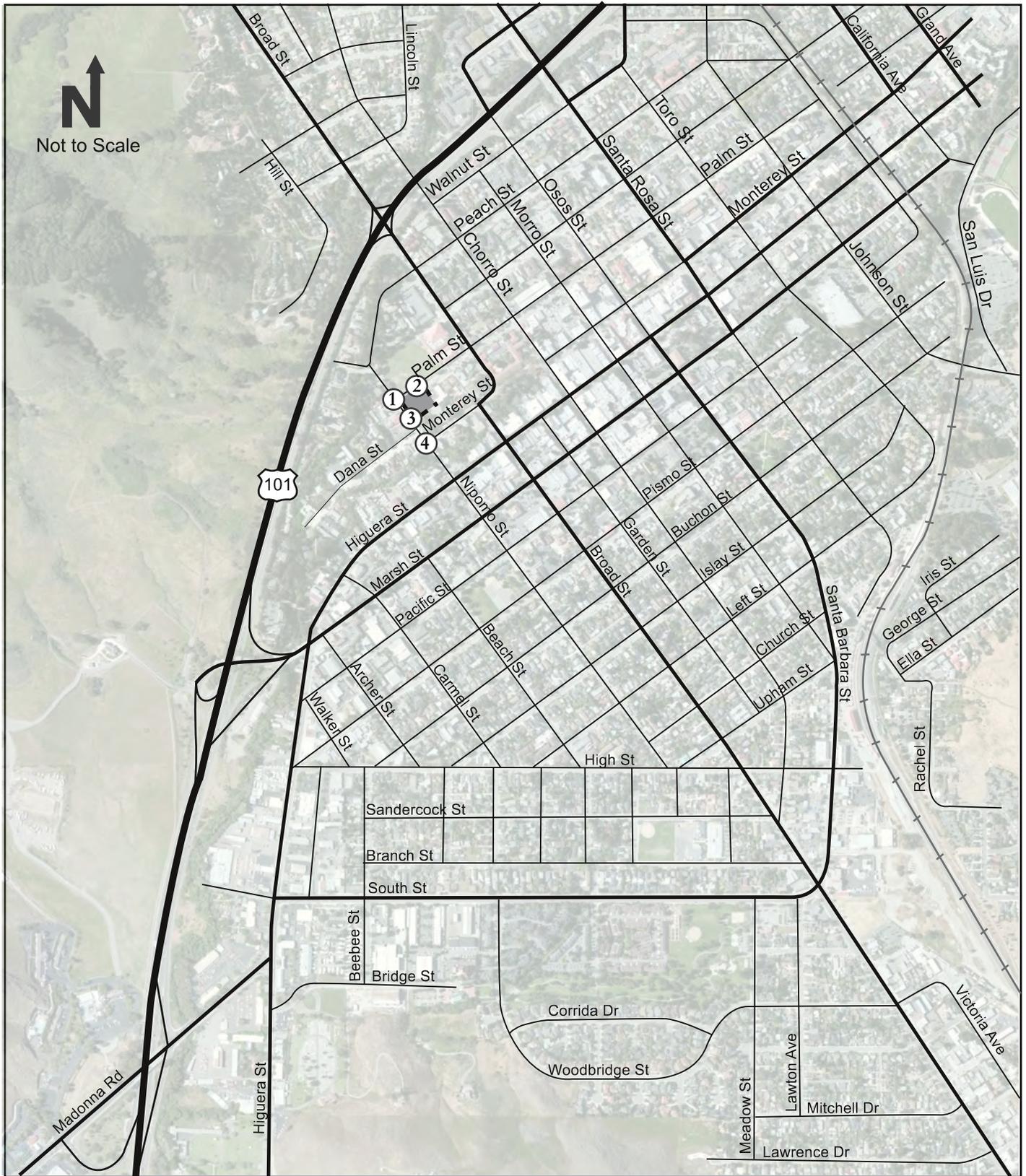
Current Mission Plaza Concepts

Two concepts are under consideration for the Mission Plaza dogleg. One concept would create a woonerf, which would slow vehicle traffic while maintaining two-way vehicular flow. A woonerf typically eliminates curbs and sidewalks and creates a linear plaza shared by pedestrians, bicycles, and vehicles. This option would likely reduce vehicle volumes as drivers shift to faster routes. Based on the prior studies and recent traffic counts the shifted vehicular volumes are not expected to significantly impact nearby roadways. Conditions for pedestrians and bicyclists would improve due to slower vehicle speeds, lower volumes, improved streetscape quality, and additional circulating space.

The second concept would provide one-way southbound flow (into downtown) with diagonal parking on one side. The one-way option would result in less dramatic changes to traffic patterns compared to the full closure evaluated in 2001, and is therefore not expected to adversely impact vehicular LOS. Conditions for pedestrians would be improved, while some cyclists would have to change routes.

Currently 10 bicycles use the dogleg segment during the PM peak hour, with six northbound and four southbound. Conversion to one-way southbound traffic would shift the northbound bicycle trips to a parallel route. Both Chorro Street and Nipomo Street are identified as Class III bike routes in the City's Bicycle Transportation Plan (BTP). The BTP includes a planned bicycle boulevard on the segment of Broad Street adjacent to Mission Plaza, as a part of the project that includes a grade-separated bike crossing of US 101. The BTP would have to be amended if the dogleg is converted to one-way traffic unless provisions are made for two-way bicycle flow.

Figure 1: Project and Study Locations



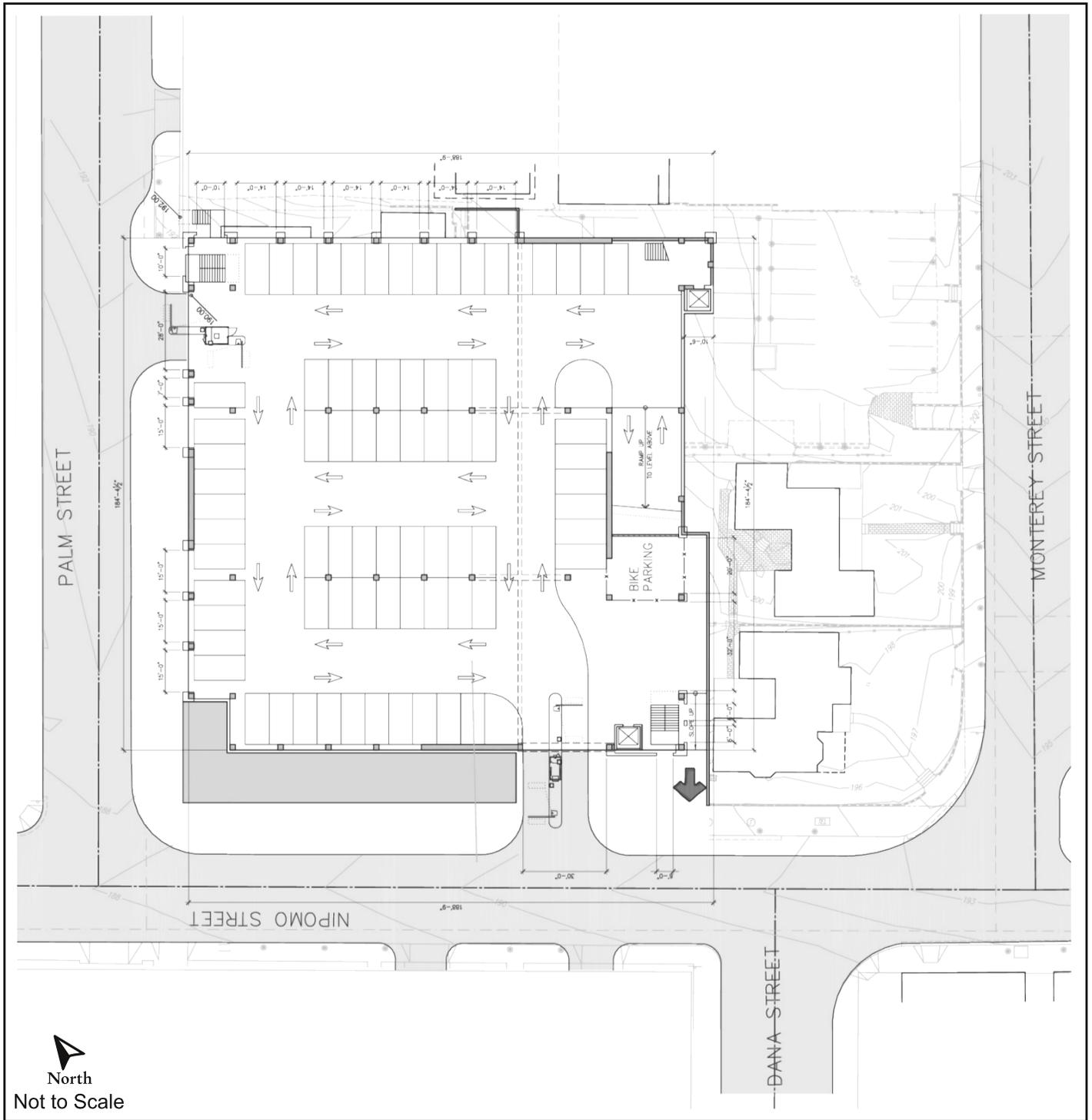
January 2017

Legend:

-  - Project Site
-  - Study Intersection

Palm/Nipomo Parking Structure

Figure 2: Site Plan



Source: Watry Design



Analysis Methods

The analysis approach was developed based on the City of San Luis Obispo’s standards and policies. Facilities operated by the City of San Luis Obispo were evaluated using thresholds identified in the 2014 Circulation Element. Table 2 of the Circulation Element specifies that level of service (LOS) D or better operations shall be maintained for bicycle and transit modes in the study area, and LOS E or better operations shall be maintained for vehicles in the downtown area. The minimum LOS standard is LOS C for pedestrians. The Circulation Element establishes priorities of each mode as presented in Table 1. Project impacts are considered significant if the project degrades a higher priority mode.

Table 1: Modal Priorities for Level of Service ¹			
Priority	Residential Corridors & Neighborhoods	Commercial Corridors & Areas	Regional Arterial and Highway Corridors
1	Pedestrians	Vehicles	Vehicles
2	Bicycles	Bicycles	Transit
3	Vehicles	Transit	Bicycles
4	Transit	Pedestrians	Pedestrians

1. Source: Table 3 City of San Luis Obispo TIS Guidelines

Intersection Analysis

The level of service thresholds for intersections and the pedestrian, bicycle, and transit modes based on the 2010 Highway Capacity Manual (HCM) are presented in Table 2.

Table 2: Intersection Level of Service Thresholds							
Signalized Intersections ¹		Stop Sign Controlled Intersections ²		Two-Way Stop Sign Controlled ³		Pedestrian, Bicycle, and Transit Modes ⁴	
Control Delay (seconds/vehicle)	Level of Service	Control Delay (seconds/vehicle)	Level of Service	Control Delay (seconds/vehicle)	Level of Service	LOS Score	Level of Service
≤ 10	A	≤ 10	A	≤ 5	A	≤ 2.00	A
> 10 - 20	B	> 10 - 15	B	> 5 - 10	B	> 2.00-2.75	B
> 20 - 35	C	> 15 - 25	C	> 10 - 20	C	> 2.75-3.50	C
> 35 - 55	D	> 25 - 35	D	> 20 - 30	D	> 3.50-4.25	D
> 55 - 80	E	> 35 - 50	E	> 30 - 45	E	> 4.25-5.00	E
> 80	F	> 50	F	> 45	F	> 5.00	F

1. Source: Exhibit 18-4 of the 2010 *Highway Capacity Manual*.
 2. Source: Exhibits 19-1 and 20-2 of the 2010 *Highway Capacity Manual*.
 3. Source: Exhibits 19-2 of the 2010 *Highway Capacity Manual*.
 4. Source: Exhibit 16-5 and 16-6 of the 2010 *Highway Capacity Manual*, assuming 60 ft²/p for pedestrian mode.

The study intersections were analyzed with the Synchro 9 software package applying the 2010 HCM methods.

Segment Analysis

The study roadway segments were evaluated for auto, pedestrians, and bicycles using the LOS+ software which applies the 2010 HCM methods. The City of San Luis Obispo Circulation Element describes street classification standards in terms of average daily traffic (ADT). The thresholds for each study segment is shown in Table 3. Local roadways have a 5,000 ADT maximum threshold.

Table 3: Segment ADT Thresholds			
Segment	Classification¹	Lanes	Maximum ADT²
Palm Street - Nipomo to Broad	Local Commercial	2	5,000
Nipomo Street - Palm to Monterey	Local Commercial	2	5,000
Broad Street - Palm to Monterey	Local Commercial	2	5,000
Monterey Street - Nipomo to Broad	Local Commercial	2	5,000
1. Source: City of San Luis Obispo Circulation Element: Figure 1 - San Luis Obispo Street Classification Diagram, City of San Luis Obispo (2015).			
2. Source: City of San Luis Obispo Circulation Element: Table 4 - Street Classification Descriptions and Standards, City of San Luis Obispo (2015).			

Thresholds of Significance

Significant impacts to transportation facilities are identified under the following circumstances:

Unsignalized intersections:

Project traffic causes an intersection operating at LOS A, B, C, or D to degrade to unacceptable traffic conditions of LOS E or F; and the volume-demand-to-capacity ratio (V/C), which compares roadway demand (vehicle volumes) with roadway supply (roadway capacity), is increased by .01 or more and signal warrants are met; or the project buildout causes or exacerbates 95th percentile turning movement queues exceeding available turn pocket capacity.

Segments:

Project traffic causes segment operation level of service degradation as follows:

- For bicycles, a segment operating at LOS A, B, C, or D to degrade to LOS E or F.
- For pedestrians, a segment operating at LOS A, B, or C to degrade to LOS D, E, or F.
- For vehicles, segments operating at LOS A, B, C, D, or E to degrade to LOS F and an increase of the V/C ratio by .01 or more.

The City’s Multimodal Transportation Impact Study Guidelines allow discretion when identifying impacts to non-auto modes based on whether the impacts are contextually significant.

Existing Conditions

This section describes the existing transportation system and current operating conditions in the study area.

EXISTING ROADWAY NETWORK

Nipomo Street is a north-south, two-way local road with one lane in each direction and a speed limit of 25 mph in the study area. Nipomo Street operates perpendicular to Higuera and Marsh Streets. The road mainly serves as a connection between the residential areas and the downtown core.

Broad Street is a north-south, two-way arterial with one lane in each direction and a speed limit of 25 mph in the study area. Broad Street operates parallel to Nipomo Street. The roadway serves the retail, commercial, and residential areas within the downtown core.

Monterey Street is an east-west, two-way local collector with one lane in each direction and a speed limit of 25 mph in the study area. Monterey Street serves the retail and commercial areas within the downtown core, providing access to two of the three downtown parking structures.

Palm Street is an east-west, two-way local collector with one lane in each direction and a speed limit of 25 mph in the study area. Palm Street serves the retail and commercial areas within the downtown core.

EXISTING PEDESTRIAN AND BICYCLE FACILITIES

Pedestrian facilities include sidewalks, crosswalks, and pedestrian signals at signalized intersections. All study segments have paved sidewalks on both sides of the street.

The intersection of Broad Street/Palm Street, with all-way stop sign control, has striped crosswalks on three of the four legs. The intersection of Nipomo Street/Palm Street has one striped crosswalk across Palm Street. The intersection of Nipomo Street/Monterey Street does not have any striped crosswalks. The intersection of Broad Street/Monterey Street has a striped crosswalk only on the uncontrolled leg. A striped crosswalk is also provided near the Mission Plaza Dogleg where Broad Street becomes Monterey Street.

Bicycle facilities in the study area consist of on-street shared bike lanes (Class III). Some Class III bike routes are designated as Bicycle Boulevards, which often parallel arterial streets and are designed to minimize vehicle traffic levels and speeds. Within the study area, Nipomo Street is classified as a Neighborhood Bike Route.

EXISTING TRANSIT SERVICE

The San Luis Obispo Regional Transit Authority (RTA) and the City of San Luis Obispo Transit Division (SLO Transit) provide fixed route transit service to the study area. RTA Route 10 and SLO Transit Routes 1 and 2 serve the study area.

RTA Route 10 serves Nipomo Street within the study area, providing service from San Luis Obispo to Santa Maria. Along Nipomo Street, southbound Route 10 stops at Higuera Street. The nearest northbound Route 10 stop is on Marsh Street at Broad Street. Weekday service has one hour headways, Saturday service has near 3 hour headways, and Sunday service has near 4 hour headways.

SLO Transit Route 1 passes through the study area as it travels southbound from the Downtown Transit Center to the Orcutt Road/Johnson Avenue area, with a stop on Nipomo Street at Higuera Street. Route 1 runs only on weekdays with hourly headways.

SLO Transit Route 2 provides service from downtown San Luis Obispo to Suburban Road, with a southbound stop on Nipomo Street at Higuera Street. The nearest northbound stop is on Marsh Street at Broad Street. Route 2 provides service with 40 minute-headways, as well as service with one hour headways on weekday evenings from Labor Day to mid-June.

EXISTING TRANSPORTATION CONDITIONS

This section is divided into the following subsections: 1) automobile operations, 2) pedestrian and bicycle operations, and 3) transit operations.

1. Automobile Mode

Traffic counts for weekday PM peak hour conditions were collected at the study intersections in 2016. Traffic count sheets are provided in Appendix A.

Figure 3 shows the Existing and Existing Plus Project peak hour traffic volumes. Table 4 presents the LOS for the study intersections and Table 5 shows the study segment LOS, with detailed calculation sheets included in Appendix B.

Table 4: Existing Intersection Auto Levels of Service				
Intersection	Peak Hour	V/C ¹	Delay ²	LOS
			(sec/veh)	
1. Palm Street/ Nipomo Street	PM	0.30	5.0 (12.3)	- (B)
2. Palm Street/ Project Driveway	PM		N/A	
3. Project Driveway/ Nipomo	PM		N/A	
4. Monterey Street/ Nipomo	PM	0.24	2.8 (13.3)	- (B)

1. Volume to capacity ratio reported for worst movement.
 2. HCM 2010 average control delay in seconds per vehicle. For side-street-stop controlled intersections the worst approach's delay is reported in parentheses next to the overall intersection delay.
 Note: Unacceptable operations shown in bold text.

Table 5: Existing PM Segment Auto Levels of Service					
Segment	Direction	PM Peak Hour	V/C	LOS	
		Volume	Ratio	Score ¹	LOS ¹
Palm Street - Nipomo to Broad	EB	80	0.03	2.34	B
	WB	173	0.00	2.34	B
Nipomo Street - Palm to Monterey	NB	204	0.09	2.34	B
	SB	236	0.17	2.34	B
Broad Street - Palm to Monterey	NB	140	0.04	2.42	B
	SB	76	0.00	2.41	B
Monterey Street - Nipomo to Broad	EB	45	0.00	2.34	B
	WB	115	0.00	2.34	B

1. HCM 2010 Automobile Traveler Perception Score and LOS

The study intersections and segments operate acceptably at LOS B for automobiles.

Table 6 presents the existing queues for the study intersections.

Table 6: Existing PM Queues		
Intersection	Movement	95th Percentile Queues (ft)¹
1. Palm Street/Nipomo Street	WBL	33
	SBL	0
2. Palm Street/Project Driveway	NBL	N/A
	WBL	N/A
3. Project Driveway/Nipomo Street	SBL	N/A
	WBL	N/A
4. Monterey Street/Nipomo Street	WBL	23
	SBL	0
1. Queue length that would not be exceeded 95 percent of the time. Note: No turn pockets are provided		

The 95th percentile queues are less than two vehicles long and would not block adjacent intersections.

2. Pedestrian and Bicycle Modes

Table 7 shows the pedestrian intersection operations under Existing Conditions for the study intersections. Bicycle intersection operations are not reported as the HCM does not establish LOS standards for bicycles at stop-controlled intersections.

Table 7: Existing PM Intersection Pedestrian LOS			
Intersection	Direction	Approach Delay¹	LOS
1. Palm Street/ Nipomo Street	NB/SB	4.8	A
2. Palm Street/ Project Driveway	All	N/A	
3. Project Driveway/ Nipomo Street	All	N/A	
4. Monterey Street/ Nipomo Street	NB/SB	9.3	B
1. HCM 2010 reports pedestrian LOS at two-way stop controlled intersections in delay (seconds).			

The study intersections operate at an acceptable service level for pedestrians.

Table 8 presents the existing pedestrian and bicycle LOS for the study segments.

Table 8: Existing PM Segment Pedestrian & Bicycle Levels of Service					
Segment	Direction	Pedestrian		Bicycle	
		LOS	LOS¹	LOS	LOS¹
Palm Street - Nipomo to Broad	EB	1.09	A	2.88	C
	WB	1.58	A	3.56	D
Nipomo Street - Palm to Monterey	NB	1.57	A	3.78	D
	SB	1.60	A	3.93	D
Broad Street - Palm to Monterey	NB	1.09	A	2.80	C
	SB	1.11	A	2.92	C
Monterey Street - Nipomo to Broad	EB	1.02	A	2.18	B
	WB	1.19	A	3.30	C

1. HCM 2010 pedestrian/bicycle score and LOS

All pedestrian study segments operate acceptably at LOS A. Westbound bicycle traffic on Palm Street between Nipomo Street and Broad Street and bicycle traffic on Nipomo between Palm and Monterey in both directions operate acceptably at LOS D. The remaining segments operate at LOS C or better for bicycles.

Bicycle segment LOS is reliant the presence of a bicycle lane and the volume of automobiles on the roadway. All study segments lack bicycle lanes thus segments with more auto traffic experience worse service levels. The nearest north/south parallel bike route is along Broad Street, designated as a Class III bicycle route.

3. Transit Mode

The project is located in the downtown core and is served by multiple transit routes. The downtown transit center is approximately 1/2 mile from the project site. The project is not expected to generate substantial demand for transit service.

An acceptable transit LOS is primarily predicated on the presence of shelters and benches at bus stops, as well as the frequency and on-time performance of each route.

Route 1 and Route 10 currently operate with a frequency of one bus per hour, while Route 2 operates at one bus every 40 minutes. All three transit routes provide an unsheltered stop with benches within one block of the project:

- A stop at the Nipomo Street/Higuera Street intersection is served by SLO Transit’s Route 1 and Route 2.
- A stop at the Marsh Street/Broad Street intersection serves Routes 1, 2, and RTA Route 10.

Routes are shown in the image below.



The City's Short Range Transit Plan (SRTP) provides transit ridership data from 2013, summarized below.

- SLO Transit's Route 1 and Route 2 operate with acceptable loading levels, and do not exceed the 45 passenger capacity at any time. Route 1's maximum load occurs near 7:15 AM, with 26 passengers on a single bus. Route 2's maximum load occurs near 2:25 PM, with 31 passengers on a single bus.
- At the Nipomo Street/Higuera Street stop, Route 1 averages 5 loading passengers, with a peak of 10 passengers, and Route 2 has an average passenger loading of 7 passengers with a peak of 19 passengers. Combined, there is a reported total of 16 daily boardings and alightings.

Table 9 presents the existing transit LOS for the study segments.

Table 9: Existing PM Segment Transit Levels of Service			
Segment	Direction	LOS Score¹	LOS¹
Palm Street - Nipomo to Broad	EB	N/A	
	WB	1.67	A
Nipomo Street - Palm to Monterey	NB	N/A	
	SB	1.68	A
Broad Street - Palm to Monterey	NB	N/A	
	SB	N/A	
Monterey Street - Nipomo to Broad	EB	N/A	
	WB	N/A	

1. HCM 2010 pedestrian/bicycle/transit score and LOS
2. LOS is not established for segments without a directional transit route.

Both study segments served by transit stops operate acceptably.

4. Collision Analysis

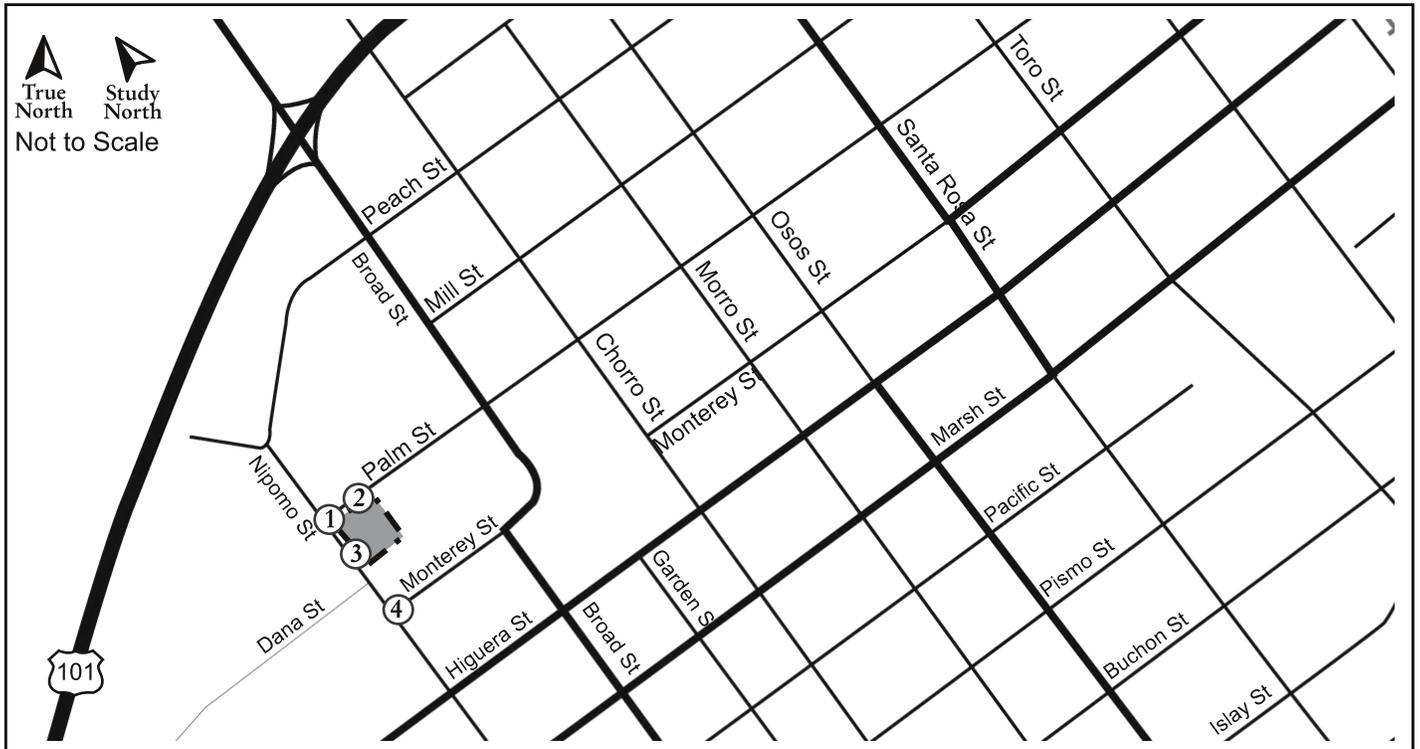
The City of San Luis Obispo maintains collision information within the study area. The three most recent years of Annual Traffic Safety Reports (2013, 2014, 2015) were reviewed for study intersection collision reports; the study intersections were not discussed. Collision rates were calculated from the most recent 3 years of collision information using the Statewide Integrated Traffic Records System (SWITRS), as well as average daily traffic entering the intersection. These rates were compared to the state average by surrounding area, geometric layout, and control type. The results are shown in Table 10 with detailed results in Appendix E.

Table 10: Collision Summary				
Intersection	ADT¹	Collisions²	Collision	Average
1. Palm Street/Nipomo Street	7,192	1	0.13	0.15
2. Palm Street/Project Driveway	2,238	0	0.00	0.15
3. Project Driveway/Nipomo Street	4,954	0	0.00	0.15
4. Monterey Street/Nipomo Street	6,229	0	0.00	0.15

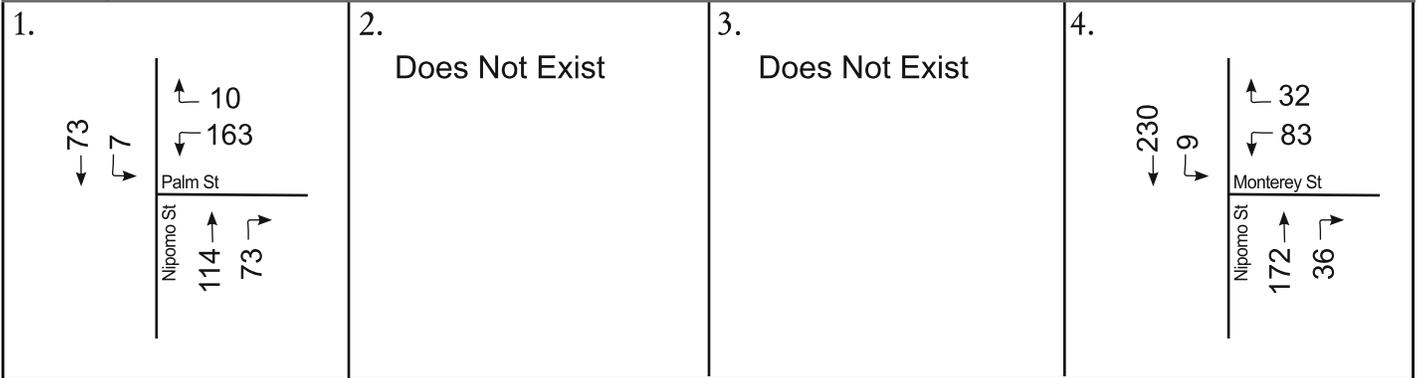
1. Average daily traffic entering the intersection.
2. Based on SWITRS data from January 1, 2013 to December 31, 2015.
3. Average collision rate based on 2009 Collision Data on California State Highways.
Note: Bold indicates intersection collision rate higher than state average.

All study intersections have lower collision rates than the state average.

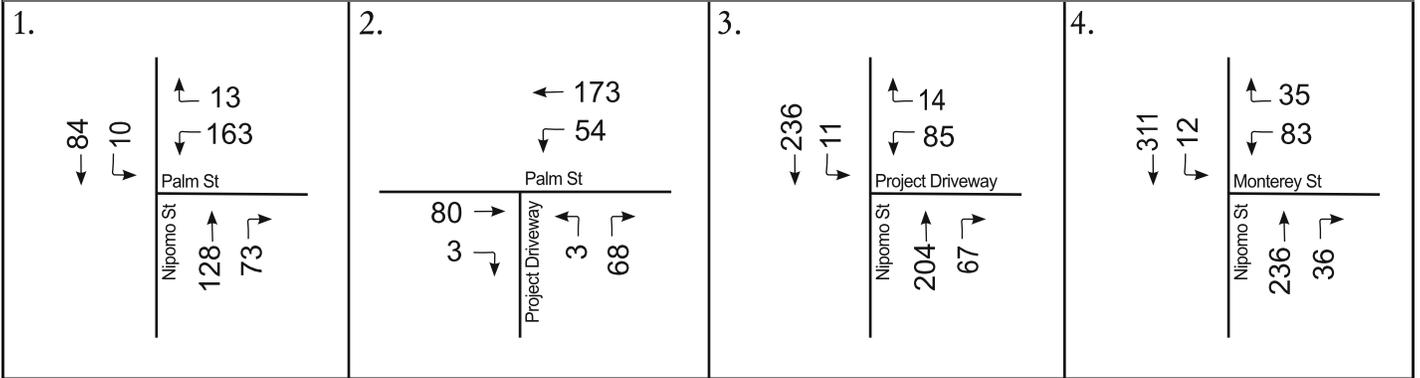
Figure 3: Existing and Existing Plus Project Volumes



Existing Peak Hour



Existing Plus Project Volumes



Legend:

- ⑦ - Study Area Intersection
- xx - PM Peak Hour Traffic Volumes

Existing Plus Project Conditions

This section evaluates the impacts of the proposed project on the surrounding transportation network.

PROJECT TRAFFIC ESTIMATES

The amount of project traffic affecting the study locations is estimated in three steps: trip generation, trip distribution, and trip assignment. Trip generation refers to the total number of trips generated by the site. Trip distribution identifies the general origins and destination of these trips, and trip assignment specifies the routes taken to reach these origins and destinations.

Trip Generation

Specific land uses -not parking- generate travel demand. Absent the travel demand associated with land use there would be no parking demand. The usage of the proposed parking structure will be driven by nearby existing and future land uses. The parking structure itself will generate few new trips, and will instead support existing and future land uses. This analysis conservatively assumes that the trips from the proposed parking structure are new trips, instead of trips shifted from other parking locations.

Trip generation rates are estimated using the average mid-week hourly entries and exits at the 919 Palm Street parking structure. The PM peak hour rates are calculated by dividing hourly entries and exists by the total number of parking spaces available to the public. These derived rates are multiplied by the anticipated number of project parking spaces to estimate vehicle trip generation.

The existing 77-space surface parking lot would be replaced by the new structure. Accordingly, the net new parking spaces are used to estimate trip generation. Existing parking structure counts and vehicle trip generation rate estimates are provided in Appendix D. Table 11 summarizes the trip generation estimates.

		In	Out	Total
Parking Structure ¹	368 sp.	118	147	265
Commercial Space ²	5,000 s.f.	1	7	8
SLO Little Theatre ³ Box Office and Staff		15	15	30
Total Trips		134	169	303
1. Rates per space derived from counts at 919 Palm parking structure; average of Tuesday and Wednesday. Estimate reflects net new spaces (445 new-77 existing=368 net new). 2. ITE <i>Trip Generation Manual</i> , Land Use Code 710, General Office Building. Average rate used for Peak Hour trips. 3. Estimate based on information provided by Little Theater staff. Source: City of San Luis Obispo, 2016; CCTC, 2016				

The project trip generation estimate shows 303 net new PM peak hour trips, 134 in and 169 out, added to adjacent streets.

Trip Distribution and Assignment

Trip distribution and assignment for the project trips were estimated based on the location of complementary land uses and existing traffic counts.

Planned Improvements

The project would reconstruct sidewalk sections along its frontage on Palm Street and Nipomo Street. Parking structure access would be provided via two driveways on Nipomo Street and Palm Street. These improvements are discussed in detail in the Site Access and Circulation section of this report.

EXISTING PLUS PROJECT IMPACT ANALYSIS

1. Automobile Mode

Tables 12 and 13 summarizes the auto operating conditions at intersections and segments under Existing and Existing Plus Project Conditions.

Table 12: Existing and Existing Plus Project Intersection Levels of Service								
Intersection	Peak Hour	Existing			Existing + Project			
		V/C ¹	Delay ² (sec/veh)	LOS	V/C ¹	Delta	Delay ² (sec/veh)	LOS
1. Palm Street/ Nipomo Street	PM	0.30	5.0 (12.3)	- (B)	0.32	0.02	5.0 (12.9)	- (B)
2. Palm Street/ Project Driveway	PM	N/A			0.08	0.08	2.8 (9.2)	- (A)
3. Project Driveway/ Nipomo Street	PM	N/A			0.21	0.21	2.3 (13.6)	- (B)
4. Monterey Street/ Nipomo Street	PM	0.24	2.8 (13.3)	- (B)	0.30	0.06	2.8 (16.2)	- (C)

1. Volume to capacity ratio reported for worst movement.
2. HCM 2010 average control delay in seconds per vehicle. For side-street-stop controlled intersections the worst approach's delay is reported in parentheses next to the overall intersection delay.
Note: Unacceptable operations shown in bold text.

Table 13: Existing Plus Project PM Segment Auto Levels of Service					
Segment	Direction	PM Peak Hour	V/C	LOS	
		Volume	Ratio	Score ¹	LOS ¹
Palm Street - Nipomo to Broad	EB	83	0.03	2.34	B
	WB	176	0.00	2.34	B
Nipomo Street - Palm to Monterey	NB	271	0.12	2.34	B
	SB	247	0.18	2.34	B
Broad Street - Palm to Monterey	NB	140	0.04	2.42	B
	SB	76	0.00	2.41	B
Monterey Street - Nipomo to Broad	EB	48	0.00	2.34	B
	WB	118	0.00	2.34	B

1. HCM 2010 Automobile Traveler Perception Score and LOS

All study intersections and segments operate acceptably at LOS C or better for vehicles.

Table 14 shows the 95th percentile queues for key movements at the study intersections. Detailed queuing information is provided in Appendix B.

Table 14: Existing Plus Project PM Queues			
Intersection	Movement	95th Percentile Queues (ft)¹	
		Existing	Existing + Project
1. Palm Street/Nipomo Street	WBL	33	35
	SBL	0	0
2. Palm Street/Project Driveway	NBL	N/A	8
	WBL	N/A	3
3. Project Driveway/Nipomo Street	SBL	N/A	0
	WBL	N/A	20
4. Monterey Street/Nipomo Street	WBL	23	33
	SBL	0	0

1. Queue length that would not be exceeded 95 percent of the time.
Note: No turn pockets are provided

The 95th percentile queues remain under two vehicles with the addition of project traffic and would not block adjacent intersections.

Vehicle Miles Traveled (VMT)

The City’s 2014 Circulation Element includes a goal to reduce car use, and sets a mode split objective where 50% of City resident trips are made by motor vehicles (presumably single occupant), with the remainder made by transit, bicycles, walking, car pools, and other forms of transportation.

The proposed project has the potential to conflict with these goals if parking is provided at a subsidized rate by effectively encouraging driving over other modes. Research has shown that increased parking supply correlates with reduced transit usage, and recent studies have documented a causal relationship where increased parking supply results in increased automobile mode share.

Conversely, research shows that where the parking supply is limited a substantial portion (30 percent by some estimates) of circulating traffic is searching for a parking spot. This increases VMT and congestion. Providing a single, consolidated parking location reduces the search time for parking, thereby reducing VMT. It also supports denser urban form and infill development where individual properties don’t have to provide on-site parking, which supports travel by walking, biking, and transit.

The proposed project does not add roadway capacity that would induce travel and does not generate new travel demand as a land use. Therefore it would have a negligible impact on VMT under the following circumstances:

- The City continues to pursue policies, programs, and investments encouraging non-auto modes of travel.
- The City continues to manage parking to minimize cruising for parking and manage parking demand. This includes policies allowing payment of in-lieu parking fees to increase density and provide centralized parking for new development.

2. Pedestrian and Bicycle Modes

Table 15 summarizes the pedestrian intersection operations under Existing Plus Project Conditions. All intersections operate at or above the desired service level. Detailed LOS calculation sheets are provided in Appendix B.

Table 15: Existing Plus Project PM Intersection Pedestrian LOS					
Intersection	Direction	Existing		Existing + Project	
		Approach Delay¹	LOS¹	Approach Delay¹	LOS¹
1. Palm Street/ Nipomo Street	NB/SB	4.8	A	5.7	B
2. Palm Street/ Project Driveway	EB/WB	N/A		7.0	B
3. Project Driveway/ Nipomo Street	NB/SB	N/A		15.8	C
4. Monterey Street/ Nipomo Street	NB/SB	9.3	B	14.2	C

1. HCM 2010 reports pedestrian LOS at two-way stop controlled intersections in delay (seconds).

The pedestrian intersection service level is acceptable at LOS C or better for all study locations.

Pedestrian and Bicycle Segment Analysis

Table 16 summarizes the pedestrian segment analysis, with detailed results provided in Appendix C. All roadway segments operate at or above the pedestrian threshold level under Existing Plus Project Conditions.

Table 16: Existing Plus Project Segment Pedestrian Levels of Service					
Segment	Direction	Existing		Existing + Project	
		LOS Score ¹	LOS ¹	LOS Score ¹	LOS ¹
Palm Street - Nipomo to Broad	EB	1.09	A	1.10	A
	WB	1.58	A	1.59	A
Nipomo Street - Palm to Monterey	NB	1.57	A	1.73	A
	SB	1.60	A	1.62	A
Broad Street - Palm to Monterey	NB	1.09	A	1.09	A
	SB	1.11	A	1.11	A
Monterey Street - Nipomo to Broad	EB	1.02	A	1.03	A
	WB	1.19	A	1.20	A

1. HCM 2010 pedestrian score and LOS.

Table 17 summarizes the bicycle segment analysis, with detailed results provided in Appendix C. All study segments operate at an acceptable level of service for bicycles.

Table 17: Existing Plus Project Segment Bicycle Levels of Service					
Segment	Direction	Existing		Existing + Project	
		LOS Score ¹	LOS ¹	LOS Score ¹	LOS ¹
Palm Street - Nipomo to Broad	EB	2.88	C	2.92	C
	WB	3.56	D	3.57	D
Nipomo Street - Palm to Monterey	NB	3.78	D	3.92	D
	SB	3.93	D	3.95	D
Broad Street - Palm to Monterey	NB	2.80	C	2.80	C
	SB	2.92	C	2.92	C
Monterey Street - Nipomo to Broad	EB	2.18	B	2.26	B
	WB	3.30	C	3.33	C

1. HCM 2010 bicycle score and LOS.

3. Transit Mode

An acceptable transit LOS is primarily predicated on the presence of shelters and benches at bus stops, as well as the frequency and on-time performance of each route.

The City is currently updating their Short Range Transit Plan in coordination with the Regional Transit Authority. The adopted SRTP notes that bus stops should be spaced every 5 to 7 blocks per mile (every other block) in the downtown core, and 4 to 5 per mile as needed on the fringe.

Transit stop spacing in the vicinity of the project conforms to these service standards.

Table 18: Existing Plus Project Segment Transit Levels of Service					
Segment	Direction	Existing		Existing + Project	
		LOS Score ¹	LOS ¹	LOS Score ¹	LOS ¹
Palm Street - Nipomo to Broad	EB	N/A		N/A	
	WB	1.67	A	1.67	A
Nipomo Street - Palm to Monterey	NB	N/A		N/A	
	SB	1.68	A	1.68	A
Broad Street - Palm to Monterey	NB	N/A		N/A	
	SB	N/A		N/A	
Monterey Street - Nipomo to Broad	EB	N/A		N/A	
	WB	N/A		N/A	

1. HCM 2010 transit score and LOS.
2. LOS is not established for segments without a directional transit route.

The addition of the project does not change the transit score of any segment, and is not expected to result in a noticeable degradation to transit service along project segments.

SITE ACCESS AND ON-SITE CIRCULATION

This section discusses issues related to site access and on-site circulation. On-site circulation deficiencies would occur if project designs fail to meet appropriate standards, fail to provide adequate truck access, or would result in hazardous conditions. The site plan was updated to reflect recommendations made in the internal review process.

The site plan is shown on **Figure 2**.

Vehicle Access and Circulation

As proposed, vehicle access into and out of the parking structure would be provided via driveways on Palm Street and Nipomo Street, with one lane for ingress and one lane for egress at each driveway. This configuration is adequate for a structure of this size.

The parking structure exits are designed to ensure that exiting vehicles have adequate sight distance.

Bicycle Access and Parking

Preliminary plans show a bicycle parking area near the structure’s Nipomo Street entrance. It is served by a 10 foot wide entrance to accommodate both pedestrians and cyclists. This width is adequate to allow cyclists a clear path of travel into the bicycle parking area. Bicycle parking should be provided in accordance with the ratios required in the City’s zoning code. For office zoning this corresponds to 15 percent of the auto parking, or 67 bicycle spaces for a 445-space structure. Of these, at least 10 percent should be short term spaces and 80 percent should be long term.

Pedestrian Access

Detailed frontage designs are not available at this time. We recommend the following improvements be considered to serve the added pedestrian demand associated with a new parking structure:

- High visibility crosswalk with directional curb ramps across Nipomo Street from the northwest corner of Dana Street/Nipomo Street to the southwest corner of the parking structure.
- High visibility crosswalk with directional curb ramps from the southeast corner of Monterey Street/Nipomo Street across Nipomo Street.

- Standard crosswalks with directional curb ramps across Monterey Street and Dana Street where they intersect with Nipomo Street.
- Reduced curb radii on the southwest corner of Dana Street/Nipomo Street and northeast corner of Monterey Street/Nipomo Street.

These enhancements would improve pedestrian access from the structure to nearby destinations.

Nipomo Street is classified as a local street in the City's Circulation Element, with an average daily traffic (ADT) threshold of 5,000 vehicles. The 2016 traffic count collected by the City shows an ADT of 4,954 vehicles. The addition of project traffic would exceed the 5,000 vehicle threshold, as would the Mission Plaza expansion if it closed or partially closed the 'dog leg.' We recommend that the City consider reclassifying Nipomo Street to be a commercial collector, a designation that is more consistent with its current and future use. Refer to Appendix F for a summary of ADTs for the study segments.

Cumulative Conditions

Cumulative Conditions represent build-out of the land uses in the region.

CUMULATIVE VOLUME FORECASTS

The City is in the process of updating the Mission Plaza Plan, which may result in changes to the Broad Street ‘dog leg’ as described in the Background section of this report. Cumulative forecasts were developed assuming no changes to vehicle access in the vicinity of Mission Plaza. The modifications under considerations as a part of the Mission Plaza Plan would not substantially change the findings in this section. No other roadway network changes affecting the study locations were assumed to be in place under Cumulative Conditions.

Cumulative and Cumulative Plus Project traffic volume forecasts, shown on **Figure 4**, were developed using the City’s Travel Demand Model, which includes planned network and land use changes expected upon buildout of the City’s General Plan.

CUMULATIVE TRANSPORTATION CONDITIONS

1. Automobile Mode

Table 19 summarizes the intersection LOS for autos under Cumulative and Cumulative Plus Project Conditions. All intersections perform at acceptable levels.

Table 19: Cumulative and Cumulative Plus Project Intersection Auto Levels of Service								
Intersection	Peak Hour	Cumulative			Cumulative + Project			
		V/C ¹	Delay ² (sec/veh)	LOS	V/C ¹	V/C Delta	Delay ² (sec/veh)	LOS
1. Palm Street/ Nipomo Street	PM	0.37	4.8 (14.8)	- (B)	0.40	0.03	4.9 (15.6)	- (C)
2. Palm Street/ Project Driveway	PM		N/A		0.09	0.09	2.5 (9.4)	- (A)
3. Project Driveway/ Nipomo Street	PM		N/A		0.25	0.25	2.2 (15.9)	- (C)
4. Monterey Street/ Nipomo Street	PM	0.35	3.7 (16.0)	- (C)	0.45	0.10	4.0 (20.7)	- (C)

1. Volume to capacity ratio reported for worst movement.
 2. HCM 2010 average control delay in seconds per vehicle. For side-street-stop controlled intersections the worst approach's delay is reported in parentheses next to the overall intersection delay.
 Note: Unacceptable operations shown in bold text.

Table 20 summarizes auto segment performance in the study area under Cumulative Conditions, Table 21 Cumulative Plus Project. Both the Cumulative and Cumulative Plus Project Conditions are forecast to operate acceptably.

Table 20: Cumulative PM Segment Auto Levels of Service					
Segment	Direction	PM Peak Hour	V/C	LOS	
		Volume	Ratio	Score ¹	LOS ¹
Palm Street - Nipomo to Broad	EB	110	0.04	2.34	B
	WB	180	0.00	2.34	B
Nipomo Street - Palm to Monterey	NB	270	0.12	2.34	B
	SB	300	0.22	2.34	B
Broad Street - Palm to Monterey	NB	156	0.05	2.42	B
	SB	99	0.00	2.41	B
Monterey Street - Nipomo to Broad	EB	50	0.00	2.34	B
	WB	140	0.00	2.34	B

1. HCM 2010 Automobile Traveler Perception Score and LOS

Table 21: Cumulative Plus Project PM Segment Auto Levels of Service					
Segment	Direction	PM Peak Hour	V/C	LOS	
		Volume	Ratio	Score ¹	LOS ¹
Palm Street - Nipomo to Broad	EB	113	0.05	2.34	B
	WB	183	0.00	2.34	B
Nipomo Street - Palm to Monterey	NB	337	0.15	2.34	B
	SB	311	0.23	2.34	B
Broad Street - Palm to Monterey	NB	156	0.05	2.42	B
	SB	99	0.00	2.41	B
Monterey Street - Nipomo to Broad	EB	53	0.00	2.34	B
	WB	143	0.00	2.34	B

1. HCM 2010 Automobile Traveler Perception Score and LOS

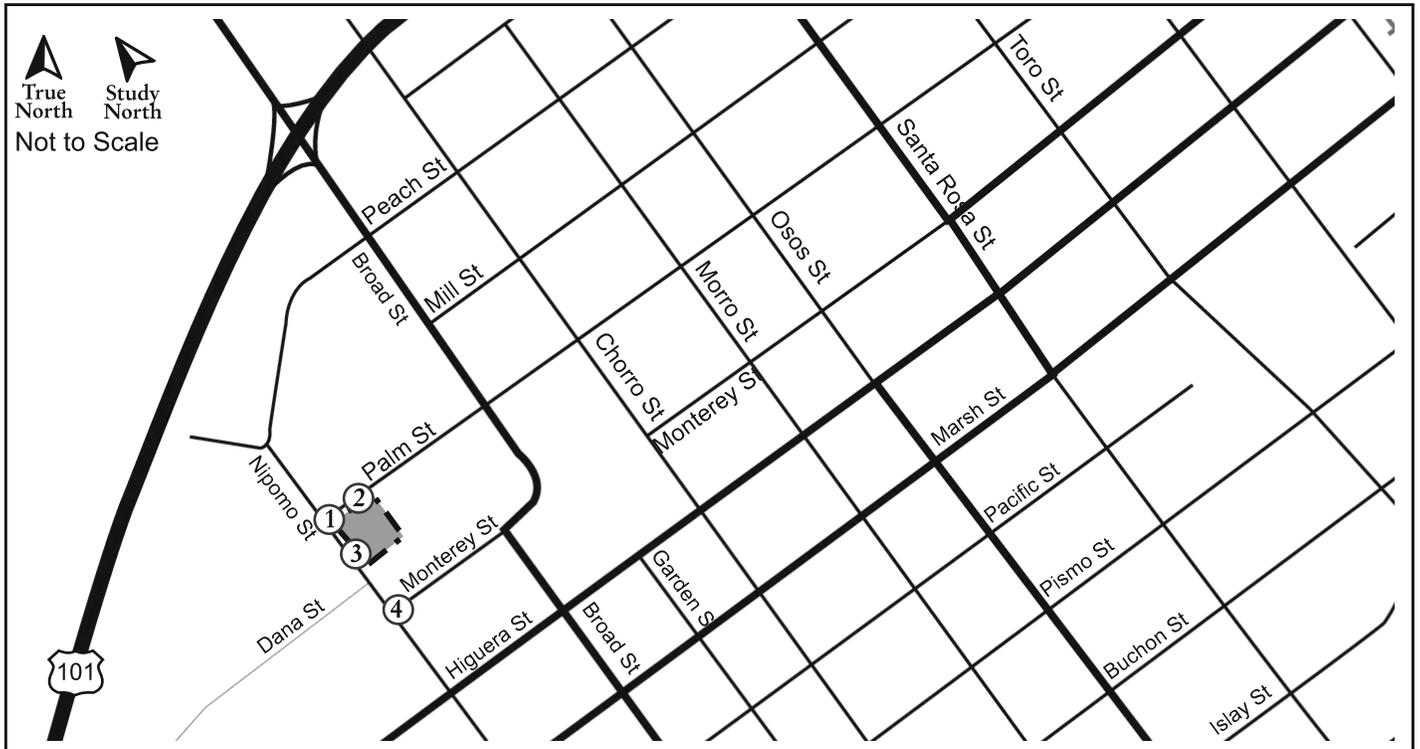
Table 22 summarizes the peak hour queues under Cumulative and Cumulative Plus Project Conditions.

Table 22: Cumulative and Cumulative Plus Project PM Queues			
Intersection	Movement	95th Percentile Queues (ft) ¹	
		Cumulative	Cumulative + Project
1. Palm Street/Nipomo Street	WBL	43	48
	SBL	0	0
2. Palm Street/Project Driveway	NBL	N/A	8
	WBL	N/A	3
3. Project Driveway/Nipomo Street	SBL	N/A	0
	WBL	N/A	25
4. Monterey Street/Nipomo Street	WBL	40	55
	SBL	0	0

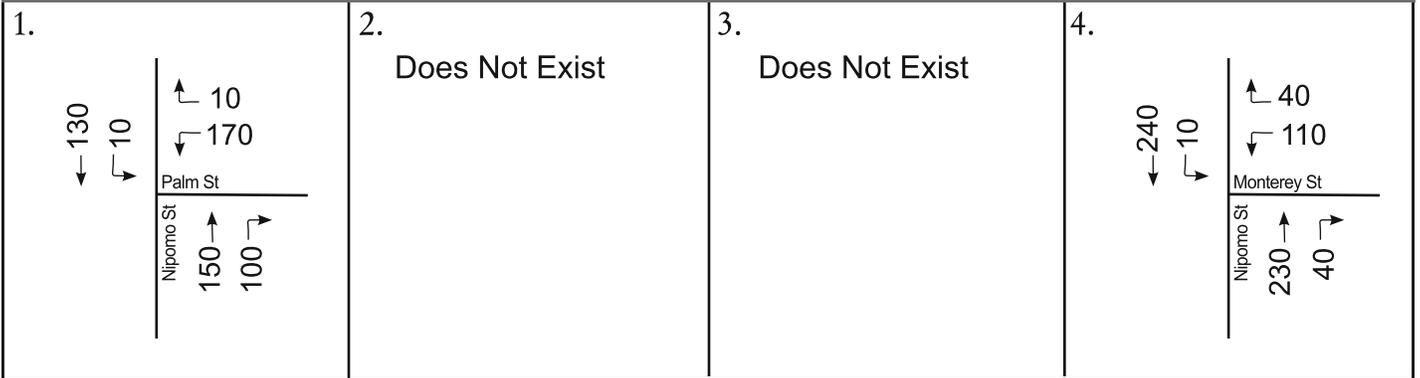
1. Queue length that would not be exceeded 95 percent of the time.
Note: No turn pockets are provided

None of the 95th percentile queues are long enough to block adjacent intersections.

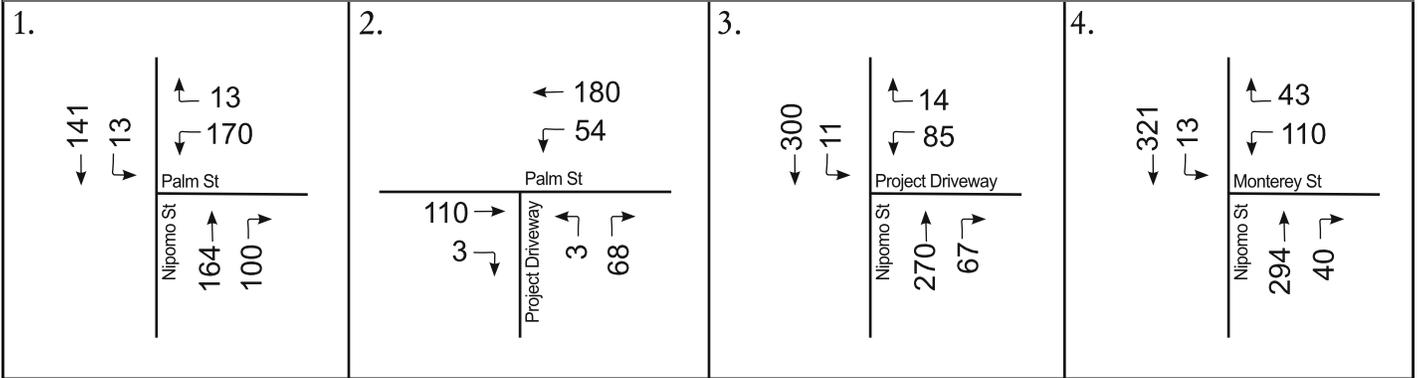
Figure 4: Cumulative and Cumulative Plus Project Volumes



Cumulative Peak Hour Volumes



Cumulative Plus Project Volumes



Legend:

- ⑦ - Study Area Intersection
- xx - PM Peak Hour Traffic Volumes

2. Pedestrian and Bicycle Modes

Tables 23 summarizes the pedestrian intersection operations under Cumulative and Cumulative Plus Project Conditions. The pedestrian LOS at the Project Driveway /Nipomo Street and Nipomo Street /Monterey Street is LOS D with the completion of the project.

Detailed LOS calculation sheets are provided in Appendix B.

Table 23: Cumulative Plus Project PM Intersection Pedestrian LOS					
Intersection	Direction	Cumulative		Cumulative + Project	
		Approach Delay ¹	LOS ¹	Approach Delay ¹	LOS ¹
1. Palm Street/ Nipomo Street	NB/SB	8.1	B	9.1	B
2. Palm Street/ Project Driveway	EB/WB	N/A		8.5	B
3. Project Driveway/ Nipomo Street	NB/SB	N/A		24.7	D
4. Monterey Street/ Nipomo Street	NB/SB	12.2	C	19.5	C

1. HCM 2010 reports pedestrian LOS at two-way stop controlled intersections in delay (seconds).

The intersection of the Project Driveway/Nipomo operates unacceptably at LOS D with the addition of project traffic. We recommend providing a pedestrian crossing at Dana Street/Nipomo Street instead of adjacent to the Project driveway, which would provide acceptable operations.

Pedestrian and Bicycle Segment Analysis

Table 24 summarizes the pedestrian segment analysis. All of the study segments operate at an acceptable service level for pedestrians.

Table 24: Cumulative Plus Project Segment Pedestrian Levels of Service					
Segment	Direction	Cumulative		Cumulative + Project	
		LOS Score	LOS	LOS Score	LOS
Palm Street - Nipomo to Broad	EB	1.18	A	1.19	A
	WB	1.60	A	1.60	A
Nipomo Street - Palm to Monterey	NB	1.72	A	1.88	A
	SB	1.74	A	1.77	A
Broad Street - Palm to Monterey	NB	1.34	A	1.34	A
	SB	1.16	A	1.16	A
Monterey Street - Nipomo to Broad	EB	1.04	A	1.05	A
	WB	1.30	A	1.31	A

1. HCM 2010 pedestrian score and LOS.

Table 25 summarizes the bicycle segment analysis. All segment operate acceptably at LOS D or better for bicycles during the PM peak hour both with and without the project.

Table 25: Cumulative Plus Project Segment Bicycle Levels of Service					
Segment	Direction	Cumulative		Cumulative + Project	
		LOS Score	LOS	LOS Score	LOS
Palm Street - Nipomo to Broad	EB	3.22	C	3.25	C
	WB	3.58	D	3.59	D
Nipomo Street - Palm to Monterey	NB	3.92	D	4.03	D
	SB	4.05	D	4.07	D
Broad Street - Palm to Monterey	NB	3.61	D	3.61	D
	SB	3.08	C	3.08	C
Monterey Street - Nipomo to Broad	EB	2.28	B	2.33	B
	WB	3.60	D	3.63	D

1. HCM 2010 bicycle score and LOS.

3. Transit Mode

Under Cumulative conditions transit services were assumed to remain the same within the study area. Table 26 summarizes the transit segment analysis.

Table 26: Cumulative Plus Project Segment Transit of Service					
Segment	Direction	Cumulative		Cumulative + Project	
		LOS Score	LOS	LOS Score	LOS
Palm Street - Nipomo to Broad	EB	N/A		N/A	
	WB	1.68	A	1.68	A
Nipomo Street - Palm to Monterey	NB	N/A		N/A	
	SB	1.70	A	1.70	A
Broad Street - Palm to Monterey	NB	N/A		N/A	
	SB	N/A		N/A	
Monterey Street - Nipomo to Broad	EB	N/A		N/A	
	WB	N/A		N/A	

1. HCM 2010 bicycle score and LOS.

2. LOS is not established for segments without a directional transit route.

Table 26 indicates acceptable transit LOS under Cumulative and Cumulative Plus Project Conditions.

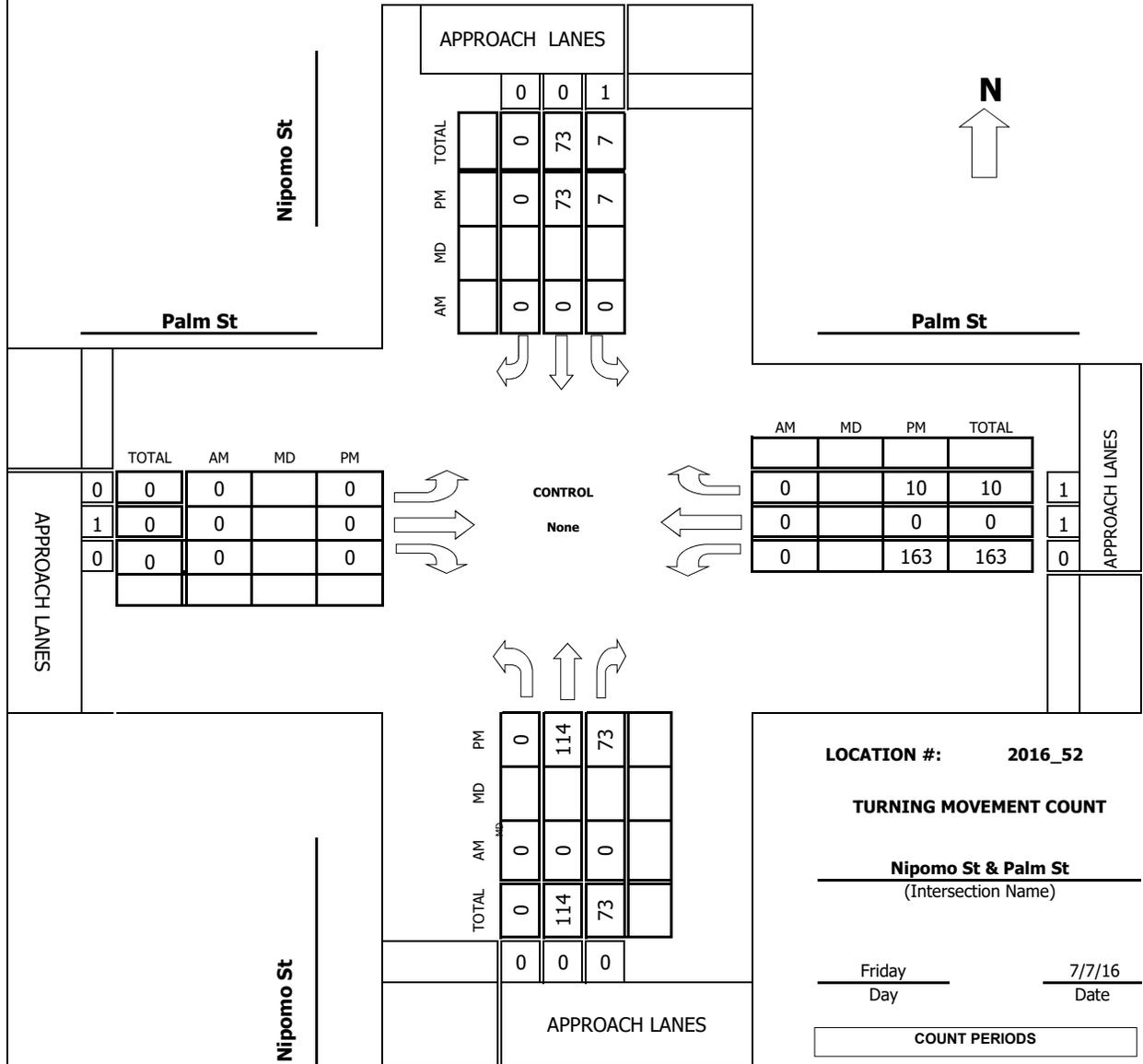
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Appendix A: Traffic Counts

Project #: 2016_52

TMC SUMMARY OF Nipomo St & Palm St



	TOTAL	AM	MD	PM
0	0	0		0
1	0	0		0
0	0	0		0

	AM	MD	PM	TOTAL
0	0			0
1	0			0
0	0			0

	AM	MD	PM	TOTAL
0			10	10
0			0	0
0			163	163

	TOTAL	AM	MD	PM
0	0			0
1	114	0		114
0	73	0		73

LOCATION #: 2016_52

TURNING MOVEMENT COUNT

Nipomo St & Palm St
(Intersection Name)

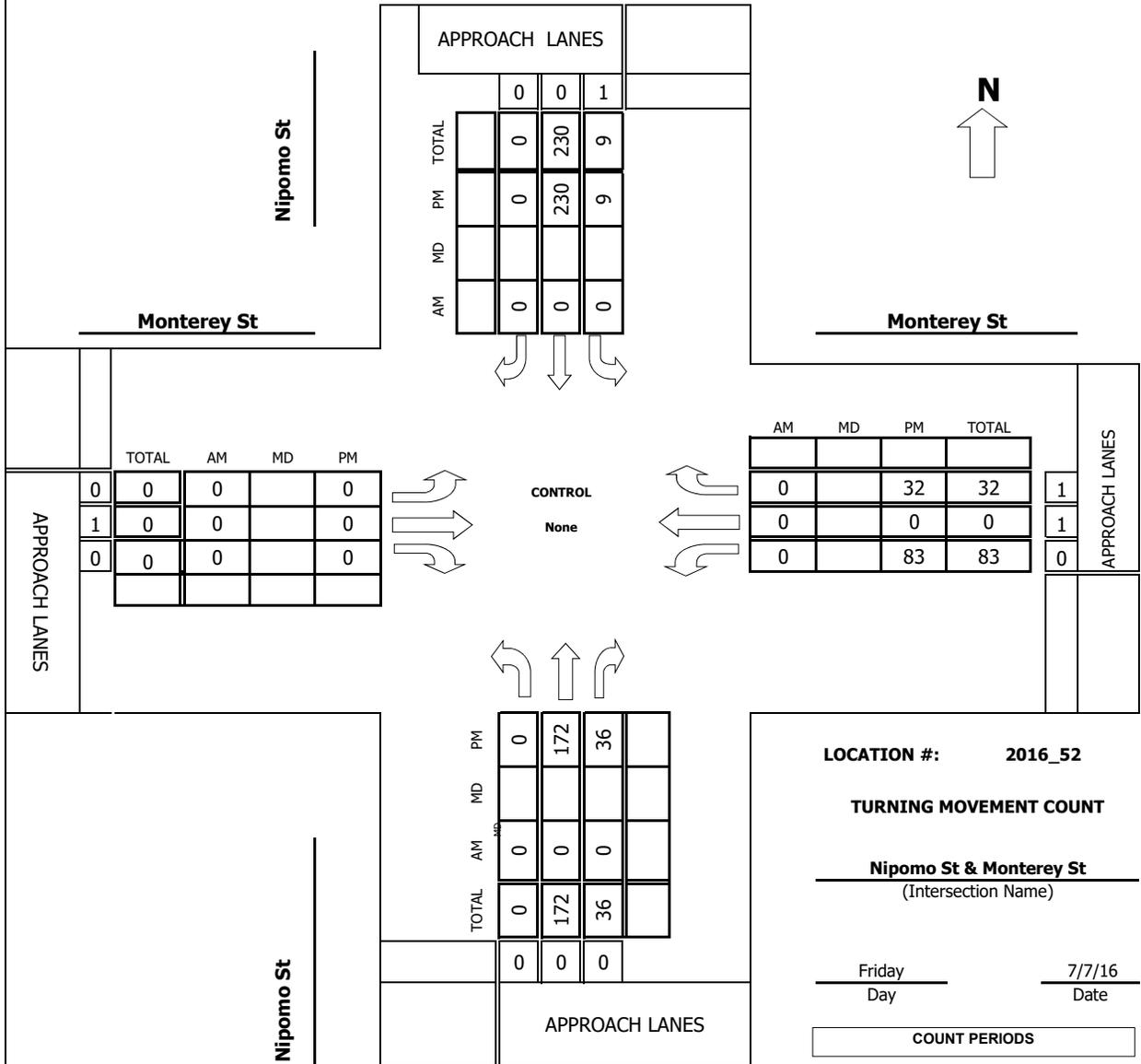
Friday 7/7/16
Day Date

COUNT PERIODS	
AM	700AM - 900AM
NOON	-
PM	400PM - 600PM

AM PEAK HOUR 0 AM
 NOON PEAK HOUR _____
 PM PEAK HOUR 500 PM

Project #: 2016_52

TMC SUMMARY OF Nipomo St & Monterey St



LOCATION #: 2016_52

TURNING MOVEMENT COUNT

Nipomo St & Monterey St
(Intersection Name)

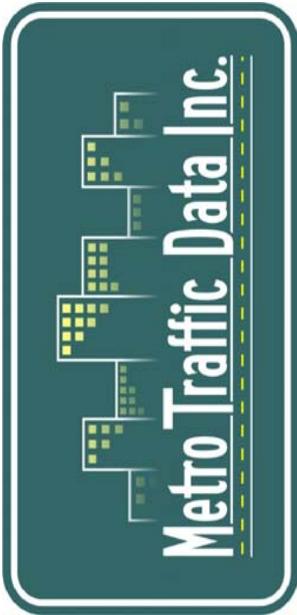
Friday 7/7/16
Day Date

COUNT PERIODS	
AM	700AM - 900AM
NOON	-
PM	400PM - 600PM

AM PEAK HOUR 0 AM
 NOON PEAK HOUR _____
 PM PEAK HOUR 500 PM

APPROACH LANES	TOTAL				APPROACH LANES
	AM	MD	PM	TOTAL	
0	0	0	0	0	1
1	0	0	0	0	1
0	0	0	0	0	0

APPROACH LANES	TOTAL				APPROACH LANES
	AM	MD	PM	TOTAL	
0	0	0	0	0	0
1	172	0	0	172	1
0	0	0	36	36	0



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Report Prepared For:

County of San Luis Obispo
1087 Santa Rosa Street
San Luis Obispo, CA 93408
(805) 781-5200

2 Day Volume Count Report

Location No. 130
Road Name Broad Street
Nearest Cross St Broad St. and Monterey Street
Survey Date 7/6/16 thru 7/12/16
Latitude _____
Longitude _____
Peak Day _____
Number of Lanes 2

Comments

PM Peak Hour Average		
Hour	Eastbound	Westbound
4:00 PM	115	86
5:00 PM	140	76
6:00 PM	98.5	50

Hour	Eastbound				Westbound				Total	Hourly Totals
	1st	2nd	3rd	4th	1st	2nd	3rd	4th		
12:00 AM	9	6	6	27	1	1	0	0	2	29
1:00 AM	4	2	5	3	14	0	0	2	1	17
2:00 AM	4	1	2	0	7	0	1	0	0	8
3:00 AM	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	1	1	2	0	1	1	3	5
5:00 AM	3	0	2	0	5	0	2	1	3	11
6:00 AM	2	4	5	8	19	1	4	3	7	34
7:00 AM	13	9	8	14	44	8	6	8	12	78
8:00 AM	12	19	12	17	60	12	12	10	21	115
9:00 AM	17	9	23	25	74	8	12	18	6	118
10:00 AM	14	23	23	23	83	18	13	13	18	145
11:00 AM	20	31	30	34	115	20	22	13	13	183
12:00 PM	32	33	33	41	139	17	19	25	24	224
1:00 PM	35	36	33	41	145	24	20	21	22	232
2:00 PM	29	25	37	33	124	20	23	15	16	198
3:00 PM	25	31	40	32	128	19	17	15	30	209
4:00 PM	27	27	35	19	108	25	19	19	29	192
5:00 PM	35	43	40	29	147	27	19	16	17	226
6:00 PM	32	24	24	16	96	13	14	9	12	144
7:00 PM	34	19	13	27	93	10	13	15	8	139
8:00 PM	18	19	10	16	63	8	7	10	4	92
9:00 PM	23	11	10	11	55	6	5	5	3	74
10:00 PM	8	7	6	8	29	4	2	1	2	38
11:00 PM	6	6	5	6	23	2	2	1	2	30
Total	1600				2549				949	

AM Peak Hr 11:00 am to 12:00 pm **183** AM PHF **0.863**
PM Peak Hr 1:00 pm to 2:00 pm **232** PM PHF **0.921**

Hour	Eastbound				Westbound				Total	Hourly Totals
	1st	2nd	3rd	4th	1st	2nd	3rd	4th		
12:00 AM	2	3	1	3	9	0	1	2	0	12
1:00 AM	4	2	1	3	10	1	4	0	0	15
2:00 AM	3	1	2	2	8	0	0	1	0	9
3:00 AM	0	1	0	0	1	0	0	0	0	1
4:00 AM	1	0	0	3	4	1	1	2	0	8
5:00 AM	1	1	1	3	7	1	0	0	2	10
6:00 AM	1	3	4	10	18	1	1	3	2	25
7:00 AM	9	12	9	14	44	4	5	13	13	79
8:00 AM	1	15	16	34	66	15	8	14	25	128
9:00 AM	23	27	23	21	94	22	14	11	16	157
10:00 AM	23	24	24	23	94	17	13	20	20	164
11:00 AM	19	38	26	35	118	16	34	24	31	205
12:00 PM	45	46	25	28	144	44	25	23	22	258
1:00 PM	32	42	24	19	117	26	30	17	24	214
2:00 PM	23	25	30	23	101	17	19	23	18	177
3:00 PM	27	30	26	38	121	25	13	11	21	191
4:00 PM	37	31	22	32	122	19	21	20	20	202
5:00 PM	33	34	38	28	133	22	23	12	16	206
6:00 PM	25	29	24	23	101	8	18	15	11	152
7:00 PM	30	22	26	17	95	10	15	16	10	146
8:00 PM	23	18	9	9	69	13	7	14	5	108
9:00 PM	19	10	10	14	53	6	6	5	7	77
10:00 PM	16	9	20	15	60	5	3	3	4	75
11:00 PM	15	11	6	15	47	5	3	0	4	59
Total	1636				2698				1062	

AM Peak Hr 11:00 am to 12:00 pm **223** AM PHF **0.774**
PM Peak Hr 1:00 pm to 2:00 pm **214** PM PHF **1.244**

7 Day In/Out Parking Garage Report

Location: 919 Palm

Survey Date: 7/6/16

Wednesday, July 06, 2016					
Hour	Entries	Exits	Spaces Occupied	Occupancy	Trips Per Hour
01:30	0	0	0	0%	0
02:30	0	0	0	0%	0
03:30	0	0	0	0%	0
04:30	0	0	0	0%	0
05:00	0	0	0	0%	0
06:00	0	0	0	0%	0
07:00	0	0	0	0%	0
08:00	13	0	13	7%	13
09:00	49	2	60	31%	51
10:00	47	24	83	43%	71
11:00	68	42	109	57%	110
12:00	68	63	114	59%	131
13:00	100	70	144	75%	170
14:00	69	81	132	69%	150
15:00	71	71	132	69%	142
16:00	73	74	131	68%	147
17:00	29	81	79	41%	110
18:00	33	65	47	24%	98
19:00	10	46	11	6%	56
20:00	0	11	0	0%	11
21:00	0	0	0	0%	0
22:00	0	0	0	0%	0
23:00	0	0	0	0%	0
23:59	0	0	0	0%	0
Total	630	630			
	1260				

Tuesday, July 12, 2016					
Hour	Entries	Exits	Spaces Occupied	Occupancy	Trips Per Hour
01:30	0	0	0	0%	0
02:30	0	0	0	0%	0
03:30	0	0	0	0%	0
04:30	0	0	0	0%	0
05:00	0	0	0	0%	0
06:00	0	0	0	0%	0
07:00	1	0	1	1%	1
08:00	15	0	16	8%	15
09:00	81	0	97	51%	81
10:00	51	41	107	56%	92
11:00	60	46	121	63%	106
12:00	52	55	118	61%	107
13:00	74	68	124	65%	142
14:00	73	65	132	69%	138
15:00	58	67	123	64%	125
16:00	51	80	94	49%	131
17:00	44	69	69	36%	113
18:00	19	52	36	19%	71
19:00	17	38	15	8%	55
20:00	1	16	0	0%	17
21:00	0	0	0	0%	0
22:00	0	0	0	0%	0
23:00	0	0	0	0%	0
23:59	0	0	0	0%	0
Total	597	597			
	1194				

Tuesday and Wednesday Average					
Hour	Entries	Exits	Spaces Occupied	Occupancy	Trips Per Hour
01:30	0	0	0	0%	0
02:30	0	0	0	0%	0
03:30	0	0	0	0%	0
04:30	0	0	0	0%	0
05:00	0	0	0	0%	0
06:00	0	0	0	0%	0
07:00	0.5	0	0.5	0%	0.5
08:00	14	0	14.5	8%	14
09:00	65	1	78.5	41%	66
10:00	49	32.5	95	49%	81.5
11:00	64	44	115	60%	108
12:00	60	59	116	60%	119
13:00	87	69	134	70%	156
14:00	71	73	132	69%	144
15:00	64.5	69	127.5	66%	133.5
16:00	62	77	112.5	59%	139
17:00	36.5	75	74	39%	111.5
18:00	26	58.5	41.5	22%	84.5
19:00	13.5	42	13	7%	55.5
20:00	0.5	13.5	0	0%	14
21:00	0	0	0	0%	0
22:00	0	0	0	0%	0
23:00	0	0	0	0%	0
23:59	0	0	0	0%	0
Total	613.5	613.5			
	1227				

Appendix B: Intersection LOS Calculation Sheets

HCM 2010 TWSC
1: Nipomo St & Palm St

Existing PM Peak Hour
8/22/2016

Intersection						
Int Delay, s/veh	5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T		T	
Traffic Vol, veh/h	163	10	114	73	7	73
Future Vol, veh/h	163	10	114	73	7	73
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	199	12	139	89	9	89
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	290	184	0	0	228	0
Stage 1	184	-	-	-	-	-
Stage 2	106	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	701	858	-	-	1340	-
Stage 1	848	-	-	-	-	-
Stage 2	918	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	696	858	-	-	1340	-
Mov Cap-2 Maneuver	696	-	-	-	-	-
Stage 1	848	-	-	-	-	-
Stage 2	912	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	12.3		0		0.7	
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	- 704	1340	-		
HCM Lane V/C Ratio	-	- 0.3	0.006	-		
HCM Control Delay (s)	-	- 12.3	7.7	0		
HCM Lane LOS	-	- B	A	A		
HCM 95th %tile Q(veh)	-	- 1.3	0	-		

HCM 2010 TWSC-Pedestrians
1: Nipomo St & Palm St

Existing PM Peak Hour
8/22/2016

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	4.8
Level of Service	A
Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	187
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.47
Prob of Blocked Lane	0.27
Delay for adq Gap	10.22
Avg Ped Delay (s)	4.78
Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	4.8
Level of Service	A
Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	187
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.47
Prob of Blocked Lane	0.27
Delay for adq Gap	10.22
Avg Ped Delay (s)	4.78

HCM 2010 TWSC
4: Nipomo St & Monterey St

Existing PM Peak Hour
8/22/2016

Intersection						
Int Delay, s/veh	2.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T	T		T
Traffic Vol, veh/h	83	32	172	36	9	230
Future Vol, veh/h	83	32	172	36	9	230
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	99	38	205	43	11	274
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	521	226	0	0	248	0
Stage 1	226	-	-	-	-	-
Stage 2	295	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	516	813	-	-	1318	-
Stage 1	812	-	-	-	-	-
Stage 2	755	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	511	813	-	-	1318	-
Mov Cap-2 Maneuver	511	-	-	-	-	-
Stage 1	812	-	-	-	-	-
Stage 2	747	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	13.3		0		0.3	
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	570	1318	-	
HCM Lane V/C Ratio	-	-	0.24	0.008	-	
HCM Control Delay (s)	-	-	13.3	7.8	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.9	0	-	

HCM 2010 TWSC-Pedestrians
4: Nipomo St & Monterey St

Existing PM Peak Hour
09/19/2017

Peak Hour
8/22/2016

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	9.3
Level of Service	B
Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	402
Ped Vol Crossed	0
Yield Rate(%)	30
Ped Platoning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.74
Prob of Blocked Lane	0.49
Delay for adq Gap	18.39
Avg Ped Delay (s)	9.33
Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	9.3
Level of Service	B
Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	402
Ped Vol Crossed	0
Yield Rate(%)	30
Ped Platoning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.74
Prob of Blocked Lane	0.49
Delay for adq Gap	18.39
Avg Ped Delay (s)	9.33

HCM 2010 TWSC
1: Nipomo St & Palm St

Existing Plus Project PM Peak Hour
12/19/2016

Intersection						
Int Delay, s/veh	5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T	T	T	T
Traffic Vol, veh/h	163	13	128	73	10	84
Future Vol, veh/h	163	13	128	73	10	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	199	16	156	89	12	102
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	328	201	0	0	245	0
Stage 1	201	-	-	-	-	-
Stage 2	127	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	666	840	-	-	1321	-
Stage 1	833	-	-	-	-	-
Stage 2	899	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	659	840	-	-	1321	-
Mov Cap-2 Maneuver	659	-	-	-	-	-
Stage 1	833	-	-	-	-	-
Stage 2	890	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	12.9		0		0.8	
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	- 670	1321	-		
HCM Lane V/C Ratio	-	- 0.32	0.009	-		
HCM Control Delay (s)	-	- 12.9	7.8	0		
HCM Lane LOS	-	- B	A	A		
HCM 95th %tile Q(veh)	-	- 1.4	0	-		

HCM 2010 TWSC-Pedestrians
1: Nipomo St & Palm St

Existing Plus Project PM Peak Hour
12/19/2016

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	5.7
Level of Service	B
Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	216
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.52
Prob of Blocked Lane	0.31
Delay for adq Gap	11.07
Avg Ped Delay (s)	5.73
Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	5.7
Level of Service	B
Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	216
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.52
Prob of Blocked Lane	0.31
Delay for adq Gap	11.07
Avg Ped Delay (s)	5.73

HCM 2010 TWSC
2: Project Dwy & Palm St

Existing Plus Project PM Peak Hour
12/19/2016

Intersection						
Int Delay, s/veh	2.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↕		↕		↕	
Traffic Vol, veh/h	80	3	54	173	3	68
Future Vol, veh/h	80	3	54	173	3	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	87	3	59	188	3	74
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	90	0	394	89
Stage 1	-	-	-	-	89	-
Stage 2	-	-	-	-	305	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2,218	-	3,518	3,318
Pot Cap-1 Maneuver	-	-	1505	-	611	969
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	748	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1505	-	584	969
Mov Cap-2 Maneuver	-	-	-	-	584	-
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	715	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.8		9.2	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	943	-	-	1505	-	
HCM Lane V/C Ratio	0.082	-	-	0.039	-	
HCM Control Delay (s)	9.2	-	-	7.5	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-	

HCM 2010 TWSC-Pedestrians
2: Project Dwy & Palm St

Existing Plus Project PM Peak Hour
12/19/2016

Approach	
Approach Direction	EB
Median Present?	No
Approach Delay(s)	7
Level of Service	B
Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	253
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.57
Prob of Blocked Lane	0.35
Delay for adq Gap	12.25
Avg Ped Delay (s)	7.03
Approach	
Approach Direction	WB
Median Present?	No
Approach Delay(s)	7
Level of Service	B
Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	253
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.57
Prob of Blocked Lane	0.35
Delay for adq Gap	12.25
Avg Ped Delay (s)	7.03

HCM 2010 TWSC
3: Nipomo St & Project Dwy

Existing Plus Project PM Peak Hour
12/19/2016

Intersection						
Int Delay, s/veh	2.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T	T	W	W
Traffic Vol, veh/h	85	14	204	67	11	236
Future Vol, veh/h	85	14	204	67	11	236
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	92	15	222	73	12	257
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	538	258	0	0	295	0
Stage 1	258	-	-	-	-	-
Stage 2	280	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	504	781	-	-	1266	-
Stage 1	785	-	-	-	-	-
Stage 2	767	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	498	781	-	-	1266	-
Mov Cap-2 Maneuver	498	-	-	-	-	-
Stage 1	785	-	-	-	-	-
Stage 2	759	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	13.6		0		0.4	
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	525	1266	-	
HCM Lane V/C Ratio	-	-	0.205	0.009	-	
HCM Control Delay (s)	-	-	13.6	7.9	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.8	0	-	

HCM 2010 TWSC-Pedestrians
3: Nipomo St & Project Dwy

Existing Plus Project PM Peak Hour
12/19/2016

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	15.8
Level of Service	C
Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	440
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.77
Prob of Blocked Lane	0.52
Delay for adq Gap	20.39
Avg Ped Delay (s)	15.77
Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	15.8
Level of Service	C
Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	440
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.77
Prob of Blocked Lane	0.52
Delay for adq Gap	20.39
Avg Ped Delay (s)	15.77

HCM 2010 TWSC
4: Nipomo St & Monterey St

Existing Plus Project PM Peak Hour
12/19/2016

Intersection						
Int Delay, s/veh	2.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T		T	W
Traffic Vol, veh/h	83	35	236	36	12	311
Future Vol, veh/h	83	35	236	36	12	311
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	99	42	281	43	14	370
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	701	302	0	0	324	0
Stage 1	302	-	-	-	-	-
Stage 2	399	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	405	738	-	-	1236	-
Stage 1	750	-	-	-	-	-
Stage 2	678	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	399	738	-	-	1236	-
Mov Cap-2 Maneuver	399	-	-	-	-	-
Stage 1	750	-	-	-	-	-
Stage 2	669	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	16.2		0		0.3	
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	- 462	1236	-		
HCM Lane V/C Ratio	-	- 0.304	0.012	-		
HCM Control Delay (s)	-	- 16.2	7.9	0		
HCM Lane LOS	-	- C	A	A		
HCM 95th %tile Q(veh)	-	- 1.3	0	-		

HCM 2010 TWSC-Pedestrians
4: Nipomo St & Monterey St

Existing Plus Project PM Peak Hour
12/19/2016

Approach		Existing Plus Project PM Peak Hour	
HCM 2010 TWSC-Pedestrians		09/19/2017	
4: Nipomo St & Monterey St			
Approach			
Approach Direction	NB		
Median Present?	No		
Approach Delay(s)	14.2		
Level of Service	C		
Crosswalk			
Length (ft)	30		
Lanes Crossed	2		
Veh Vol Crossed	547		
Ped Vol Crossed	0		
Yield Rate(%)	30		
Ped Platooning	No		
Critical Headway (s)	11.57		
Prob of Delayed X-ing	0.83		
Prob of Blocked Lane	0.58		
Delay for adj Gap	24.20		
Avg Ped Delay (s)	14.17		
Approach			
Approach Direction	SB		
Median Present?	No		
Approach Delay(s)	14.2		
Level of Service	C		
Crosswalk			
Length (ft)	30		
Lanes Crossed	2		
Veh Vol Crossed	547		
Ped Vol Crossed	0		
Yield Rate(%)	30		
Ped Platooning	No		
Critical Headway (s)	11.57		
Prob of Delayed X-ing	0.83		
Prob of Blocked Lane	0.58		
Delay for adj Gap	24.20		
Avg Ped Delay (s)	14.17		

HCM 2010 TWSC
1: Nipomo St & Palm St

Cumulative PM Peak Hour
12/20/2016

Intersection						
Int Delay, s/veh	4.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T		T	W
Traffic Vol, veh/h	170	10	150	100	10	130
Future Vol, veh/h	170	10	150	100	10	130
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	207	12	183	122	12	159
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	427	244	0	0	305	0
Stage 1	244	-	-	-	-	-
Stage 2	183	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	584	795	-	-	1256	-
Stage 1	797	-	-	-	-	-
Stage 2	848	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	578	795	-	-	1256	-
Mov Cap-2 Maneuver	578	-	-	-	-	-
Stage 1	797	-	-	-	-	-
Stage 2	840	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	14.8		0		0.6	
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	- 587	1256	-		
HCM Lane V/C Ratio	-	- 0.374	0.01	-		
HCM Control Delay (s)	-	- 14.8	7.9	0		
HCM Lane LOS	-	- B	A	A		
HCM 95th %tile Q(veh)	-	- 1.7	0	-		

HCM 2010 TWSC-Pedestrians
1: Nipomo St & Palm St

Cumulative PM Peak Hour
12/20/2016

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	8.1
Level of Service	B
Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	280
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.61
Prob of Blocked Lane	0.38
Delay for adq Gap	13.19
Avg Ped Delay (s)	8.06
Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	8.1
Level of Service	B
Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	280
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.61
Prob of Blocked Lane	0.38
Delay for adq Gap	13.19
Avg Ped Delay (s)	8.06

HCM 2010 TWSC
4: Nipomo St & Monterey St

Cumulative PM Peak Hour
12/20/2016

Intersection						
Int Delay, s/veh	3.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T	T		T
Traffic Vol, veh/h	110	40	230	40	10	240
Future Vol, veh/h	110	40	230	40	10	240
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	131	48	274	48	12	286
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	608	298	0	0	321	0
Stage 1	298	-	-	-	-	-
Stage 2	310	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	459	741	-	-	1239	-
Stage 1	753	-	-	-	-	-
Stage 2	744	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	453	741	-	-	1239	-
Mov Cap-2 Maneuver	453	-	-	-	-	-
Stage 1	753	-	-	-	-	-
Stage 2	735	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	16		0		0.3	
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBR/WBLn1	SBL	SBT		
Capacity (veh/h)	-	- 505	1239	-		
HCM Lane V/C Ratio	-	- 0.354	0.01	-		
HCM Control Delay (s)	-	- 16	7.9	0		
HCM Lane LOS	-	- C	A	A		
HCM 95th %tile Q(veh)	-	- 1.6	0	-		

HCM 2010 TWSC-Pedestrians
HCM 2010 TWSC-Pedestrians
4: Nipomo St & Monterey St

Cumulative PM Peak Hour
Cumulative PM Peak Hour
09/19/2017
12/20/2016

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	12.2
Level of Service	C
Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	470
Ped Vol Crossed	0
Yield Rate(%)	30
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.80
Prob of Blocked Lane	0.55
Delay for adq Gap	22.11
Avg Ped Delay (s)	12.24
Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	12.2
Level of Service	C
Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	470
Ped Vol Crossed	0
Yield Rate(%)	30
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.80
Prob of Blocked Lane	0.55
Delay for adq Gap	22.11
Avg Ped Delay (s)	12.24

HCM 2010 TWSC
1: Nipomo St & Palm St

Cumulative Plus Project PM Peak Hour
12/20/2016

Intersection						
Int Delay, s/veh	4.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T		T	W
Traffic Vol, veh/h	170	13	164	100	13	141
Future Vol, veh/h	170	13	164	100	13	141
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	207	16	200	122	16	172
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	465	261	0	0	322	0
Stage 1	261	-	-	-	-	-
Stage 2	204	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	556	778	-	-	1238	-
Stage 1	783	-	-	-	-	-
Stage 2	830	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	548	778	-	-	1238	-
Mov Cap-2 Maneuver	548	-	-	-	-	-
Stage 1	783	-	-	-	-	-
Stage 2	818	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	15.6		0		0.7	
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	- 560	1238	-		
HCM Lane V/C Ratio	-	- 0.399	0.013	-		
HCM Control Delay (s)	-	- 15.6	7.9	0		
HCM Lane LOS	-	- C	A	A		
HCM 95th %tile Q(veh)	-	- 1.9	0	-		

HCM 2010 TWSC-Pedestrians
1: Nipomo St & Palm St

Cumulative Plus Project PM Peak Hour
12/20/2016

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	9.1
Level of Service	B
Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	305
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.64
Prob of Blocked Lane	0.40
Delay for adq Gap	14.12
Avg Ped Delay (s)	9.08
Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	9.1
Level of Service	B
Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	305
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.64
Prob of Blocked Lane	0.40
Delay for adq Gap	14.12
Avg Ped Delay (s)	9.08

HCM 2010 TWSC
2: Project Dwy & Palm St

Cumulative Plus Project PM Peak Hour
12/20/2016

Intersection						
Int Delay, s/veh	2.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↕		↕		↕	
Traffic Vol, veh/h	110	3	54	180	3	68
Future Vol, veh/h	110	3	54	180	3	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	120	3	59	196	3	74
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	123	0	434	121
Stage 1	-	-	-	-	121	-
Stage 2	-	-	-	-	313	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1464	-	579	930
Stage 1	-	-	-	-	904	-
Stage 2	-	-	-	-	741	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1464	-	553	930
Mov Cap-2 Maneuver	-	-	-	-	553	-
Stage 1	-	-	-	-	904	-
Stage 2	-	-	-	-	708	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.7		9.4	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	904	-	-	1464	-	
HCM Lane V/C Ratio	0.085	-	-	0.04	-	
HCM Control Delay (s)	9.4	-	-	7.6	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-	

HCM 2010 TWSC-Pedestrians
2: Project Dwy & Palm St

Cumulative Plus Project PM Peak Hour
12/20/2016

Approach	
Approach Direction	EB
Median Present?	No
Approach Delay(s)	8.5
Level of Service	B
Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	290
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.62
Prob of Blocked Lane	0.39
Delay for adq Gap	13.56
Avg Ped Delay (s)	8.46
Approach	
Approach Direction	WB
Median Present?	No
Approach Delay(s)	8.5
Level of Service	B
Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	290
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.62
Prob of Blocked Lane	0.39
Delay for adq Gap	13.56
Avg Ped Delay (s)	8.46

HCM 2010 TWSC
3: Nipomo St & Project Dwy

Cumulative Plus Project PM Peak Hour
12/20/2016

Intersection						
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T	T	W	W
Traffic Vol, veh/h	85	14	270	67	11	300
Future Vol, veh/h	85	14	270	67	11	300
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	92	15	293	73	12	326
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	680	330	0	0	366	0
Stage 1	330	-	-	-	-	-
Stage 2	350	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	417	712	-	-	1193	-
Stage 1	728	-	-	-	-	-
Stage 2	713	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	412	712	-	-	1193	-
Mov Cap-2 Maneuver	412	-	-	-	-	-
Stage 1	728	-	-	-	-	-
Stage 2	704	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	15.9		0		0.3	
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBR/WBLn1	SBL	SBT		
Capacity (veh/h)	-	- 438	1193	-		
HCM Lane V/C Ratio	-	- 0.246	0.01	-		
HCM Control Delay (s)	-	- 15.9	8	0		
HCM Lane LOS	-	- C	A	A		
HCM 95th %tile Q(veh)	-	- 1	0	-		

HCM 2010 TWSC-Pedestrians
3: Nipomo St & Project Dwy

Cumulative Plus Project PM Peak Hour
12/20/2016

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	24.7
Level of Service	D
Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	570
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.85
Prob of Blocked Lane	0.62
Delay for adq Gap	28.97
Avg Ped Delay (s)	24.73
Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	24.7
Level of Service	D
Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	570
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.85
Prob of Blocked Lane	0.62
Delay for adq Gap	28.97
Avg Ped Delay (s)	24.73

HCM 2010 TWSC
4: Nipomo St & Monterey St

Cumulative Plus Project PM Peak Hour
12/20/2016

Intersection						
Int Delay, s/veh	4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T		T	W
Traffic Vol, veh/h	110	43	294	40	13	321
Future Vol, veh/h	110	43	294	40	13	321
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	131	51	350	48	15	382
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	787	374	0	0	398	0
Stage 1	374	-	-	-	-	-
Stage 2	413	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	360	672	-	-	1161	-
Stage 1	696	-	-	-	-	-
Stage 2	668	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	354	672	-	-	1161	-
Mov Cap-2 Maneuver	354	-	-	-	-	-
Stage 1	696	-	-	-	-	-
Stage 2	657	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	20.7	0		0.3		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	- 408	1161	-		
HCM Lane V/C Ratio	-	- 0.446	0.013	-		
HCM Control Delay (s)	-	- 20.7	8.1	0		
HCM Lane LOS	-	- C	A	A		
HCM 95th %tile Q(veh)	-	- 2.2	0	-		

HCM 2010 TWSC-Pedestrians
4: Nipomo St & Monterey St

Cumulative Plus Project PM Peak Hour
09/19/2017

Peak Hour
12/20/2016

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	19.5
Level of Service	C
Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	615
Ped Vol Crossed	0
Yield Rate(%)	30
Ped Platoning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.87
Prob of Blocked Lane	0.65
Delay for adq Gap	32.71
Avg Ped Delay (s)	19.49
Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	19.5
Level of Service	C
Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	615
Ped Vol Crossed	0
Yield Rate(%)	30
Ped Platoning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.87
Prob of Blocked Lane	0.65
Delay for adq Gap	32.71
Avg Ped Delay (s)	19.49

Appendix C: Segment LOS Calculation Sheets



LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing PM Palm Street
Limits Nipomo to Broad

Direction Eastbound

Date 9/21/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Nipomo Street	Broad Street	0.03	2.34	B	64944.00	1.09	A	2.88	C	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing PM Palm Street
Limits Nipomo to Broad

Direction Westbound

Date 9/21/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Nipomo Street	Broad Street	0.00	2.34	B	64944.00	1.58	A	3.56	D	1.67	A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing PM Nipomo Street
Limits Palm to Monterey

Direction Northbound

Date 9/21/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Palm Street	Monterey Street	0.09	2.34	B	55440.00	1.57	A	3.78	D	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing PM Nipomo Street
Limits Palm to Monterey

Direction Southbound

Date 9/21/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Palm Street	Monterey Street	0.17	2.34	B	55440.00	1.60	A	3.93	D	1.68	A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing PM Broad Street
Limits Palm to Monterey

Direction Northbound

Date 9/21/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Palm Street	Monterey Street	0.04	2.42	B	3167.98	1.29	A	3.48	C	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing PM Broad Street
Limits Palm to Monterey

Direction Southbound

Date 9/21/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Palm Street	Monterey Street	0.00	2.41	B	1727.97	1.09	A	2.80	C	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing PM Monterey Street
Limits Broad to Nipomo

Direction Eastbound

Date 9/21/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Broad Street	Nipomo Street	0.00	2.34	B	74448.00	1.02	A	2.18	B	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing PM Monterey Street
Limits Broad to Nipomo

Direction Westbound

Date 9/21/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Broad Street	Nipomo Street	0.00	2.34	B	74448.00	1.19	A	3.30	C	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing + Project PM Palm Street
Limits Nipomo to Broad

Direction Eastbound

Date 12/13/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Nipomo Street	Broad Street	0.03	2.34	B	64944.00	1.10	A	2.92	C	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing + Project PM Palm Street
Limits Nipomo to Broad

Direction Westbound

Date 12/13/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Nipomo Street	Broad Street	0.00	2.34	B	64944.00	1.59	A	3.57	D	1.67	A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



**LOS+ Multimodal Level of Service for Urban Streets
Results Summary**

Street Existing + Project PM Nipomo Street
Limits Palm to Monterey

Direction Northbound

Date 12/13/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Palm Street	Monterey Street	0.12	2.34	B	55440.00	1.73	A	3.92	D	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



**LOS+ Multimodal Level of Service for Urban Streets
Results Summary**

Street Existing + Project PM Nipomo Street
Limits Palm to Monterey

Direction Southbound

Date 12/13/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Palm Street	Monterey Street	0.18	2.34	B	55440.00	1.62	A	3.95	D	1.68	A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing + Project PM Broad Street
Limits Palm to Monterey

Direction Northbound

Date 12/13/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Palm Street	Monterey Street	0.04	2.42	B	3167.98	1.29	A	3.48	C	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing + Project PM Broad Street
Limits Palm to Monterey

Direction Southbound

Date 12/13/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Palm Street	Monterey Street	0.00	2.41	B	1727.97	1.09	A	2.80	C	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing + Project PM Monterey Street
Limits Broad to Nipomo

Direction Eastbound

Date 12/13/2016
Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Broad Street	Nipomo Street	0.00	2.34	B	74448.00	1.03	A	2.24	B	#DIV/0!	N/A
2												
3												
4												
5												

Note:
1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)
Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing + Project PM Monterey Street
Limits Broad to Nipomo

Direction Westbound

Date 12/13/2016
Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Broad Street	Nipomo Street	0.00	2.34	B	74448.00	1.20	A	3.33	C	#DIV/0!	N/A
2												
3												
4												
5												

Note:
1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)
Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative PM Palm Street
Limits Nipomo to Broad

Direction Eastbound

Date 12/20/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Nipomo Street	Broad Street	0.04	2.34	B	64944.00	1.18	A	3.22	C	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative PM Palm Street
Limits Nipomo to Broad

Direction Westbound

Date 12/20/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Nipomo Street	Broad Street	0.00	2.34	B	64944.00	1.60	A	3.58	D	1.68	A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



**LOS+ Multimodal Level of Service for Urban Streets
Results Summary**

Street Cumulative PM Nipomo Street
Limits Palm to Monterey

Direction Northbound

Date 12/20/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Palm Street	Monterey Street	0.12	2.34	B	55440.00	1.72	A	3.92	D	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



**LOS+ Multimodal Level of Service for Urban Streets
Results Summary**

Street Cumulative PM Nipomo Street
Limits Palm to Monterey

Direction Southbound

Date 12/13/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Palm Street	Monterey Street	0.22	2.34	B	55440.00	1.74	A	4.05	D	1.70	A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative PM Broad Street
Limits Palm to Monterey

Direction Northbound

Date 12/13/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Palm Street	Monterey Street	0.05	2.42	B	3167.98	1.34	A	3.61	D	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative PM Broad Street
Limits Palm to Monterey

Direction Southbound

Date 12/13/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Palm Street	Monterey Street	0.00	2.41	B	1727.97	1.16	A	3.08	C	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative PM Monterey Street
Limits Broad to Nipomo

Direction Eastbound

Date 12/20/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Broad Street	Nipomo Street	0.00	2.34	B	74448.00	1.04	A	2.28	B	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative PM Monterey Street
Limits Broad to Nipomo

Direction Westbound

Date 12/20/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Broad Street	Nipomo Street	0.00	2.34	B	74448.00	1.30	A	3.60	D	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative Plus Project PM Palm Street
Limits Nipomo to Broad

Direction Eastbound

Date 12/20/2016
Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Nipomo Street	Broad Street	0.05	2.34	B	64944.00	1.19	A	3.25	C	#DIV/0!	N/A
2												
3												
4												
5												

Note:
1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)
Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative Plus Project PM Palm Street
Limits Nipomo to Broad

Direction Westbound

Date 12/20/2016
Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Nipomo Street	Broad Street	0.00	2.34	B	64944.00	1.60	A	3.59	D	1.68	A
2												
3												
4												
5												

Note:
1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)
Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative Plus Project PM Nipomo Street
Limits Palm to Monterey

Direction Northbound

Date 12/20/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Palm Street	Monterey Street	0.15	2.34	B	55440.00	1.88	A	4.03	D	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative Plus Project PM Nipomo Street
Limits Palm to Monterey

Direction Southbound

Date 12/13/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Palm Street	Monterey Street	0.23	2.34	B	55440.00	1.77	A	4.07	D	1.70	A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative Plus Project PM Broad Street
Limits Palm to Monterey

Direction Northbound

Date 12/13/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Palm Street	Monterey Street	0.05	2.42	B	3167.98	1.34	A	3.61	D	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative Plus Project PM Broad Street
Limits Palm to Monterey

Direction Southbound

Date 12/13/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Palm Street	Monterey Street	0.00	2.41	B	1727.97	1.16	A	3.08	C	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



**LOS+ Multimodal Level of Service for Urban Streets
Results Summary**

Street Cumulative Plus Project PM Monterey Street
Limits Broad to Nipomo

Direction Eastbound

Date 12/20/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Broad Street	Nipomo Street	0.00	2.34	B	74448.00	1.05	A	2.33	B	#DIV/0!	N/A
2												
3												
4												
5												

Note:
1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)
Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17



**LOS+ Multimodal Level of Service for Urban Streets
Results Summary**

Street Cumulative Plus Project PM Monterey Street
Limits Broad to Nipomo

Direction Westbound

Date 12/20/2016

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	LOS Score	LOS	Ped Space ¹	LOS Score	LOS	LOS Score	LOS	LOS Score	LOS
1	Broad Street	Nipomo Street	0.00	2.34	B	74448.00	1.31	A	3.63	D	#DIV/0!	N/A
2												
3												
4												
5												

Note:
1. Pedestrian space is reported in square feet per pedestrian (ft²/ped)
Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

Appendix D: Trip Generation Calculations

Table 1: Vehicle Trip Generation Rates and Estimates

Parking Structure	Spaces in Structure ²	PM ¹			Occupancy
		In	Out	Total	
919 Palm St.	192	62	77	139	69%
	Rates ³	0.32	0.40	0.72	

1. Counts and rates derived from city; average of Tuesday and Wednesday.
2. Represents public spaces only, private spaces not included
3. Rates are reported in trips per parking space

Appendix E: Collision Information

Collision Summary
 3 years data
1. Palm/Nipomo
 Collisions 1
 ADT 7192

Palm	Nipomo
AADT 2238	AADT 4954
Date 2016 City ADT Counts	Date 2016 City ADT Counts

Collision Rate **0.13**

2009 Rates Tee, Stop & Yield Signs (EXC 4 Way), Urban
 Basic-Average #0.15

Year Collisions	2015 CCTC TMC
1/1/2013-12/31/2013 1	NBL NBT
1/1/2014-12/31/2014 0	NBR SBL
1/1/2015-12/31/2015 0	SBT SBR
Total 1	EBL EBT
	WBL WBT
	WBR

ADT Nipomr Nipomo SB PM Ratio Monterey I Monterey Est. ADT

Collision Summary
 3 years data
2. Palm/Driveway
 Collisions 0
 ADT 2238

Palm	Driveway
AADT 2238	AADT 0
Date 2016 City ADT Counts	Date

Collision Rate **0.00**

2009 Rates Tee, Stop & Yield Signs (EXC 4 Way), Urban
 Basic-Average #0.15

Year Collisions	2014 City TMC
1/1/2013-12/31/2013 0	NBL NBT
1/1/2014-12/31/2014 0	NBR SBL
1/1/2015-12/31/2015 0	SBT SBR
Total 0	EBL EBT
	WBL WBT
	WBR

Known AD Known TM PM Ratio Other Roac Other Road Est. ADT
 0 0 #DIV/0! 0 #DIV/0!

Collision Summary
 3 years data
3. Driveway/Nipomo
 Collisions 0
 ADT 4954

Driveway	Nipomo
AADT 0	AADT 4954
Date 2016 City ADT Counts	Date 2016 City ADT Counts

Collision Rate **0.00**

2009 Rates Tee, Stop & Yield Signs (EXC 4 Way), Urban
 Basic-Average #0.15

Year Collisions	2016 CCTC TMC
1/1/2013-12/31/2013 0	NBL NBT
1/1/2014-12/31/2014 0	NBR SBL
1/1/2015-12/31/2015 0	SBT SBR
Total 0	EBL EBT
	WBL WBT
	WBR

Known AD Known TM PM Ratio Other Roac Other Road Est. ADT
 0 0 #DIV/0! 0 #DIV/0!

Collision Summary
 3 years data
4. Monterey/Nipomo
 Collisions 0
 ADT 6229

Monterey	Nipomo
AADT 1275	AADT 4954
Date 2016 Derived	Date 2016 City ADT Counts

Collision Rate **0.00**

2009 Rates Tee, Stop & Yield Signs (EXC 4 Way), Urban
 Basic-Average #0.15

Year Collisions	2016 CCTC TMC
1/1/2013-12/31/2013 0	NBL NBT
1/1/2014-12/31/2014 0	NBR SBL
1/1/2015-12/31/2015 0	SBT SBR
Total 0	EBL EBT
	WBL WBT
	WBR

Known AD Known TM PM Ratio Other Roac Other Road Est. ADT
 4954 447 11.08277 115 1274.519

Appendix F: ADT Summary

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Segment	Existing	Existing Plus Project	Cumulative	Cumulative Plus Project
Palm Street - Nipomo to Broad	2,238	2,794	2,565	3,121
Nipomo Street - Palm to Monterey	4,954	5,722	6,418	7,186
Broad Street - Palm to Monterey	2,676	2,676	3,159	3,159
Monterey Street - Nipomo to Broad	1,197	1,223	1,421	1,447