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FINAL | JANUARY 2015

PORT SAN LUIS HARBOR TERRACE DEVELOPMENT PLAN

ENVIRONMENTAL IMPACT REPORT APPENDICES

SCH #2014031024

APPENDIX A.
NOTICE OF PREPARATION FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT AND NOTICE OF PREPARATION COMMENT LETTERS

SWCA
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San Luis Obispo Office
1422 Monterey Street, Suite C200
San Luis Obispo, CA 93401
Tel 805.543.7095 Fax 805.543.2367
www.swca.com

NOTICE OF PREPARATION:
DRAFT ENVIRONMENTAL IMPACT REPORT

DATE: March 7, 2014

TO: Responsible and Trustee Agencies
Other Interested Parties

FROM: Port San Luis Harbor District and State Coastal Conservancy

PROJECT: Port San Luis Harbor Terrace Development Plan

The Port San Luis Harbor District (District) will be the lead agency for the preparation of an environmental impact report (EIR) for the Port San Luis Harbor Terrace project (project). A description of the project is provided in the attached Initial Study.

The District needs to know the views of your agency relative to the scope and content of the analysis to be provided in the EIR. In accordance with the time limits prescribed by State law, your response must be sent at the earliest date possible but not later than 30 days after receipt of this notice (**5:00 pm April 7, 2014**). Please provide us the following information:

1. **NAME OF CONTACT PERSON.** (Please include address, e-mail, and telephone number)

2. **PERMIT(S) or APPROVAL(S) AUTHORITY.** Please provide a summary description of these and send a copy of the relevant sections of legislation, regulatory guidance, etc.

3. **ENVIRONMENTAL INFORMATION.** What environmental information must be addressed in the EIR to enable your agency to use this documentation as a basis for your permit issuance or approval?

4. **PERMIT STIPULATIONS/CONDITIONS.** Please provide a list and description of standard stipulations (conditions) that your agency will apply to features of this project. Are there other conditions that have a high likelihood of application to a permit or approval for this project? If so, please list and describe.

5. **ALTERNATIVES.** What alternatives does your agency recommend be analyzed in the EIR?

6. **REASONABLY FORESEEABLE PROJECTS, PROGRAMS, or PLANS.** Please name any future projects, programs, or plans that you think may have an overlapping influence with the project as proposed.

7. **RELEVANT INFORMATION.** Please provide references for any available, appropriate documentation you believe may be useful to the District in preparing the EIR. Reference to and/or inclusion of such documents in an electronic format would be appreciated.

8. **FURTHER COMMENTS.** Please provide any further comments or information that will help the District to scope the document and determine the appropriate level of environmental assessment.

Please send your comments to:

Port San Luis Harbor District
c/o Shawna Scott, Project Manager
SWCA Environmental Consultants
1422 Monterey Street, C200
San Luis Obispo, CA 93401

A public scoping meeting has been scheduled for March 19, 2014, at 2:00 pm at the District's public meeting space at the Coastal Gateway Building, 3900 Avila Beach Drive, Avila Beach, California 93424. All interested parties are invited to attend. If you have any questions regarding the project or this notice, please call me at 805.543.7095, extension 6811, or email me at sscott@swca.com.

Sincerely,



Shawna Scott
Project Manager
(on behalf of the District)

Reference: California Administrative Code, Title 14, Section 15082

Attachments

Initial Study and Preliminary Project Description

Initial Study Summary Environmental Checklist

PORT SAN LUIS HARBOR DISTRICT

3950 Avila Beach Drive ~ P.O. Box 249
Avila Beach, CA 93424
805.595.5400

Project Title: Port San Luis Harbor Terrace Development Plan

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: The proposed project could have a "Potentially Significant Impact" for at least one of the environmental factors checked below. Please refer to the attached pages for discussion on mitigation measures or project revisions to either reduce these impacts to less than significant levels or require further study.

☒ Aesthetics	☒ Geology and Soils	☒ Recreation
☐ Agricultural Resources	☒ Hazards/Hazardous Materials	☒ Transportation/Circulation
☒ Air Quality	☒ Noise	☒ Wastewater
☒ Biological Resources	☐ Population/Housing	☒ Water /Hydrology
☒ Cultural Resources	☒ Public Services/Utilities	☐ Land Use

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation, the Lead Agency finds that:

☐ The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ The proposed 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.

☐ Although the proposed project could have a significant effect on the environment, because all potentially 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 proposed project, nothing further is required.

Shawna Scott on behalf of the Harbor District — March 3, 2014

Prepared by (Print) — Signature — Date

PROJECT ENVIRONMENTAL ANALYSIS

The Port San Luis Harbor District (District), as the lead agency in this project, is entering into environmental review as required by the California Environmental Quality Act (CEQA) and the CEQA Guidelines. The initial study provides a preliminary evaluation of the potential impacts that could arise from construction and occupancy of the proposed project based on current information (Exhibit A). The District has prepared this initial study to determine if the project would have a significant effect on the environment. This document, along with other information in the record, enables the District to decide whether to prepare an environmental impact report (EIR), or a negative declaration (ND), and informs the scope of the subsequent environmental document.

The project is subject to land use approval by the County of San Luis Obispo (County). This document is intended to provide information in support of the land use application pending with the County (DRC2013-00044).

Persons, agencies, or organizations interested in obtaining more information regarding this project should contact Steve McGrath, Harbor Manager, 3950 Avila Beach Drive, Avila Beach, CA 93424, or call (805) 595-5414.

A. PROJECT DESCRIPTION

The project is a proposal by the Port San Luis Harbor District (District) and the State Coastal Conservancy (Conservancy) for a Development Plan (Plan) for the Harbor Terrace site. The Plan is currently being developed; initiation of the initial study at this juncture is to help determine the scope and contents of the environmental document, allow the environmental review and scoping process to inform the Plan and alternatives development, and maximize opportunities for self-mitigation and alternatives analysis. The level of specificity of the project description and evaluation is commensurate with the level of project detail available at the time this initial study was prepared.

Harbor Terrace is an approximately 32-acre portion of the District's landholdings associated with Port San Luis (Port). District property is generally bound by Pacific Gas and Electric (PG&E) property on the north, the Pacific Ocean on the west, Avila Beach Drive and the Pacific Ocean on the south, and private undeveloped property on the east. The project is located on the north side of Avila Beach Drive, east of the intersection of Avila Beach Drive and Diablo Canyon Road, approximately 1 mile west of the community of Avila Beach, in the San Luis Bay (Coastal) planning area (refer to Exhibit B).

The Harbor Terrace project shall comply with the San Luis Bay Coastal Area Plan Local Coastal Plan (LCP) so as to not require an amendment to this plan. In compliance with the LCP, the project program will include a mix of tent sites; tent cabins, bungalows, inns, or yurts; full service recreational vehicle (RV) camp sites; other related amenities such as a food and beverage retail store and/or an eating and drinking establishment; parking; and storage facilities to serve the Port. The project will improve upon existing circulation, revegetate portions of the site with native habitat, and employ engineering solutions that meet or exceed new County of San Luis Obispo (County) and Regional Water Quality Control Board (RWQCB) stormwater regulations.

The following is a summary of existing goals and policies which apply to the site, and the manner in which the proposed project complies. More detail regarding policy consistency will become available as the project develops. The EIR will contain a full evaluation of the project's consistency with applicable plans and policies.

San Luis Bay Coastal Area – Goals & Policies for the Harbor Terrace Planning Sub-Area

The project will conform to the following goals and policies put forth in Chapter 8 (Planning Area Standards) of the San Luis Bay Coastal Area Plan (Adopted/Certified in 1988 and Revised August 2009) for the Harbor Terrace Planning Sub-Area (see page 8-20):

Development Intent: The Harbor Terrace project will provide a range and mix of uses, with emphasis on coastal-related and visitor-serving uses, so that the land is financially and physically supportive of District operations.

Harbor Users: The Harbor Terrace project must provide space to accommodate current and future District and other user needs including gear storage, trailer boat storage, and other harbor uses.

Visitor Uses: The Harbor Terrace project will provide visitor-serving retail uses that are complementary to the harbor so the project may enhance the public's enjoyment in ways that financially and physically support the District's public functions. The project program must include overnight accommodations and commercial uses according to market demand and feasibility. Overnight accommodations shall include affordable visitor serving facilities.

Environmental Performance: The Harbor Terrace project shall integrate site and building design techniques that are environmentally sensitive and energy conserving.

Pedestrian Access: New visitor-serving developments on Harbor Terrace shall incorporate measures to provide safe pedestrian access onsite and coordinate access to the beach and other Port facilities.

Prescribed Uses: The Harbor Terrace project shall allow trailer boat and gear storage, eating and drinking establishments, food and beverage retail sales (e.g., market or commissary), yachting and rowing clubs, paths, trails, scenic overlooks and sightseeing facilities, public parking, picnicking, accessory storage, hotels and motels (e.g., camping, bungalows, tent cabins, inns, casitas, bed and breakfast), recreational vehicle parks, meeting facilities, group camping, passive recreation, communication facilities, specialized programs, outdoor retail sales, Harbor Operations (including offices, storage and maintenance yard), public safety facilities, temporary events, interpretive displays and exhibits, shuttle station, aquaculture, and mariculture.

Road, Infrastructure, and Service Restrictions: The San Luis Bay Coastal Area Plan precludes the project from extending roads, infrastructure, services, or other development connections through the Harbor Terrace property to other non-District properties. This restriction does not preclude trailhead connections.

San Luis Bay Coastal Area – Planning Criteria for the Harbor Terrace Planning Sub - Area

The project will conform to the following Planning Criteria put forth in Chapter 8 (Planning Area Standards) of the San Luis Bay Coastal Area Plan (Adopted/Certified in 1988 and Revised August 2009) for Harbor Terrace Planning Sub-Area (see pages 8-22 to 8-25):

Priority of Uses: Proposed uses of the project shall include sufficient area for the highest priority coastal-dependent and coastal-related uses. Other uses shall be designed and constructed to avoid interference with coastal-dependent and coastal-related uses. To ensure the project provides adequate facilities necessary to serve the highest priority uses and does not reduce opportunities for lower cost visitor-serving uses and coastal access and recreation, the project program shall provide the following:

1. Minimum Required Uses: A minimum of 70 trailer boat storage spaces, 20 marine gear storage spaces, 48,000 square feet of general public parking (which includes public parking for a possible Harbor Office meeting room), and 10,000 square feet of expansion area that will be reserved to accommodate coastal-dependent and coastal-related uses. These uses shall be located in the western and southwestern portions of the site in order to maximize proximity to the coast and other associated harbor facilities, unless another location is equally sufficient.

2. Prescribed Use Ratios: A minimum of one lower-cost campsite (car or walk-in/bike-in tent campsite) must be provided for every 1.5 units of hotel/motel (cabin, bungalow, inn, yurt, casita) development. A minimum of one lower-cost campsite (car or walk-in/bike-in tent campsite) must be provided for every three RV campsites.

3. Project Phasing Limitations: Permits necessary to construct the minimum number of lower-cost campsites (car or walk-in/bike-in tent campsites) must be approved prior to or concurrently with any permit approval for hotel/motel and/or commercial retail development on the project site, and the lower-cost campsites must be available for use within 1 year of the opening of the hotel/motel and/or commercial retail development.

4. Purpose of Commercial Uses: All commercial uses must serve coastal-dependent uses, coastal-related uses, and/or provide visitor-serving uses.

5. Intent of Accommodations: With the exception of an on-site campground host or campground facilities manager, all overnight accommodations to be developed on the project site shall be exclusively available to the general public for transient occupancy. The establishment or conversion of overnight accommodations to a private or members only use (e.g., timeshares or condominiums), or the implementation of any program to allow extended and exclusive use or occupancy of the facilities by an individual or limited group or segment of the public is prohibited.

6. Special Events: Specialized programs and temporary events are subject to land use approval consistent with the LCP. Outdoor events conducted on the site shall be planned and staged so that noise generated by the event, attendees, and traffic is minimized. Temporary events shall not interfere with harbor operations and boating and fishing activities.

Building and Site Design Requirements: New development shall be sited and designed to minimize the visual impacts of the development, including those related to light and glare, in order to preserve the scenic quality of the area as viewed from public viewing areas, adjacent roads, piers, beaches, and the ocean. Special attention shall be given to maintaining character of the Harbor area. This shall be accomplished by:

1. Commercial Use Location: Restricting the development of commercial retail facilities and structures (eating and drinking establishments, food and beverage retail sales, commissary, market, meeting rooms, parking, etc.) to the lower previously graded portions of the site, as depicted in Conceptual Harbor Terrace Plan Figure 8.7 of the San Luis Bay Coastal Area Plan.

2. Commercial Use Height Limitations: Limiting commercial retail facilities/structures and the harbor office/shop to two-stories with a maximum height of 25 feet.

3. Hotel Use Height Limitations: Limiting hotel motel units (yurts, cabins, inns, casitas, bungalows) to single-story with a maximum height of 15 feet.

4. Camping Use Location: Limiting the use of Assessor's Parcel Number (APN) 076-171-021 to walk-in/bike-in camping. The small, previously disturbed area on the northwest portion of the parcel adjacent to the existing access road may be used for structures necessary to serve the walk-in/bike-in campsites. No new road development or road improvements shall occur on APN 076-171-021, and vegetation removal shall be minimized. Each walk-in/bike-in site shall be limited to a level area or platform for a tent, picnic table, fire ring, and water spigot.

5. Aesthetics: Requiring that all development to be designed, colored, and sited to minimize visibility within the public viewshed.

    - Bulk: Project buildings shall avoid large, boxy structures by providing variations in height, articulated roof forms and pitch, and open space view corridors.
    - Materials: Structures shall blend in with the natural surroundings by using earth toned colors and materials. Reflective materials and finishes are prohibited.
    - Lighting: Lighting (particularly overhead street lights, should they be necessary) shall be minimized in number and shall be shielded to orient lighting downward.
    - Landscape: The project shall be landscaped with native vegetation where appropriate in order to soften the visual prominence of the new development and to restore the visual qualities of the site.

6. Landscape and Irrigation Plans: Identifying revegetation areas necessary to stabilize slopes and planting areas necessary to minimize visual impacts of grading/terracing and the proposed use of the site. Landscape plans shall utilize native plant species where appropriate, and shall be designed to minimize the visual impact of all development on the site as viewed from public viewing areas, piers, beaches, and the ocean. Alteration of natural landforms is to be minimized and any areas of cut/grading shall immediately be re-seeded using a native seed mix.

7. Restroom Location: Requiring a restroom building or other structures necessary to serve the campsites to be sited in the least visible portions of previously disturbed areas, and designed and landscaped to prevent its visibility from public view.

8. Water Tank Improvements: Requiring that any improvements or additions to the existing water tank to be limited to the minimum necessary to provide approved site development with water storage for domestic supply and fire protection purposes; shall be placed underground to the greatest degree feasible; and shall be sited, colored, and landscaped to minimize visibility from public viewing areas (including roads, piers, beaches, and offshore areas).

9. Visual Analysis: Requiring at the time of Coastal Development Permit application, or as part of an environmental review document, a detailed visual analysis which demonstrates that the visual and scenic character of the site will be preserved and improved where possible.

Biological Resources: To protect and enhance sensitive biological resources and habitat areas, including water quality, on and adjacent to the project site, the following measures shall include, but are not limited to:

1. Revegetation: The revegetation of all newly cut slopes with native species of local stock where appropriate.

2. Tree Replacement: The replacement of all oak trees in areas adjacent to existing oak woodland habitat, if the removal of such oak trees cannot be avoided. The number and replacement of trees shall be adequate to ensure that an equal or greater number of oak trees, in comparison to the number of trees removed, will be successfully established. A tree replacement program, including long-term maintenance measures, shall accompany any development plan that involves the removal of existing oak trees. This program will include strategies for improving natural oak recruitment.

3. Habitat Disturbance: Designing grading and construction activities to avoid disturbance of habitat (e.g., coastal scrub habitat) and minimize the removal of oak trees.

4. Setback Zones: The establishment, management, and maintenance of setback or buffer zones as habitat areas. The width of such setback/buffer areas shall be determined through a project specific biological analysis that identifies the minimum setback/buffer area necessary to protect the biological productivity of sensitive habitat areas. Setback areas necessary for fire safety shall be identified in the development plan and shall be designed to avoid the removal or disturbance of habitat areas. The width of the vegetative buffer area provided for the coastal stream adjacent to Diablo Canyon Road shall be no less than 50 feet.

5. Guest Education: Providing information to future guests regarding nature-viewing opportunities.

6. Designated Habitat Areas: The provision of designated areas for pets so that native habitat areas are avoided.

7. Grading: Grading for approved development shall be designed and implemented to minimize sedimentation impacts on adjacent surface water bodies including coastal streams and San Luis Bay. Construction activities such as grading and clearing shall be scheduled to avoid the rainy season.

8. Stormwater Management: Minimize impervious surfaces and install post development Best Management Practices (BMPs) to capture, infiltrate, and/or treat stormwater runoff. The objective of drainage improvements shall be to avoid any increase in the quantity and intensity of stormwater runoff exiting the site. Post construction BMPs shall be designed with adequate capacity to accommodate, at a minimum, the 85th percentile 24-hour runoff event.

9. Drainage Facilities: If drainage facilities are proposed to flow into the stream/drainage channel adjacent to Diablo Canyon Road, the stream channel shall be restored to provide both flow capacity and natural habitat.

10. Drainage Filtration: Filtering all drainage from parking facilities by using vegetated swales or oil/water separators to limit oil/grease pollution and the intensity of flow commonly associated with parking lots.

11. Limit Water Quality Impacts: Use all BMPs possible to limit water quality impacts and eliminate to the greatest degree feasible the need for additional culverts and ocean/beach disposal points.

Cultural Resources: Potential project impacts to cultural resources shall be evaluated, and the protection and/or mitigation for any significant resources identified shall be incorporated into the proposed site design in coordination with the State Historic Preservation Office (SHPO) and the local Chumash tribe. Archaeological field surveys shall be conducted prior to project construction activities. In accordance with Section 23.05.140 of the County Coastal Zone Land Use Ordinance (CZLUO), all construction activities shall cease should resources be identified during construction. In such an event, construction activities shall not re-commence until measures protecting and/or mitigating impacts to archaeological resources have been developed and approved by the Planning Director, Environmental Coordinator, SHPO, and Chumash tribe. No development shall occur west of Diablo Canyon Road other than restoration of the existing drainage course, and any cultural/archaeological preservation activities that have been coordinated and approved by the SHPO and representatives of the appropriate Chumash tribe.

Slope Stability: To reduce hazards on the project site, new structures designated for human occupation and use (e.g., hotels, motels, campsites, parking lots, offices, commercial areas) must demonstrate a static factor of safety with respect to slope stability of 1.5 and a pseudostatic factor of safety to 1.1, using a horizontal seismic coefficient of 0.15g. In addition, uses on the project site or slopes above it that would have a significant potential to saturate the soils and add further slope instability, such as drainage detention basins or septic systems, shall be prohibited.

Access. Access to the site will likely utilize existing vehicular entries from Avila Beach Drive. The site design will incorporate measures to provide safe pedestrian access onsite and coordinate access to the beach and other Port facilities.

Total area of paving and structures. The total area of all paving and structures is unknown at this time. The project aims to implement Low Impact Development strategies that will allow the project to meet or exceed intent and requirements of new County stormwater regulations. The project will minimize impervious surfaces and utilize post development BMPs to capture infiltrate, and/or treat stormwater runoff.

Total area of grading or removal of ground cover. The total area subject to grading or removal of ground cover is unknown at this time. Grading for approved development shall be designed and implemented to minimize sedimentation impacts on adjacent surface water bodies including coastal streams and San Luis Bay. Construction activities such as grading and clearing shall be scheduled to avoid the rainy season.

Number of trees to be removed. The number of trees to be removed is unknown at this time. The project will include the replacement of all oak trees in areas adjacent to existing oak woodland habitat, if the removal of such oak trees cannot be avoided. The number and replacement of trees shall be adequate to ensure that an equal or greater number of oak trees, in comparison to the number of trees removed, will be successfully established. A tree replacement program, including long-term

maintenance measures, shall accompany any development plan that involves the removal of existing oak trees. This program will include strategies for improving natural oak recruitment.

Height and Type of tallest structure. The commercial retail structures and the harbor office/shop will not exceed two stories with a maximum height of 25 feet.

Setbacks. No part of a recreational vehicle is to be located closer than 25 feet to any street property line, and no closer than 30 feet to any interior property line. No RV or tent is to be located closer than 10 feet to any other RV or tent.

Timing. Development plan approval is anticipated in 2015. The potential construction timeline is currently under development.

ASSESSOR PARCEL NUMBER(S): 076-172-002 and 076-172-010

The Port San Luis Harbor District also acquired from Eureka Energy Company: portion of APN 076-171-018,-021, and 076-172-019,-022. Subsequent to recording of public lot, a new APN will be assigned to the property.

B. EXISTING SETTING

PLANNING AREA: San Luis Bay, Coastal

LAND USE CATEGORY: Public Facility

COMBINING DESIGNATION(S): Archaeologically Sensitive (AS), Coastal Appealable Zone (CAZ), Coastal Special Community CSC, Geologically Sensitive (GS), Local Coastal Plan (LCP), Sensitive Resource Area (SRA)

TOPOGRAPHY: Steeply sloping, variable

VEGETATION: Mixed, ruderal, grassland, coastal scrub, ornamental and native trees

PARCEL SIZE: Approximately 32 acres

EXISTING USES: The project property is a significantly graded, terraced site with some paved circulation on the lower portion of the site. Current uses and existing structures include a former District office building and boat, gear and other storage areas serving the Port.

SURROUNDING LAND USE CATEGORIES AND USES:

North: Agriculture, undeveloped

East: Agriculture, undeveloped

South: Road infrastructure and public beach

West: Agriculture, Public Utility, undeveloped

C. ENVIRONMENTAL ANALYSIS

The following checklist identifies those issue areas considered “potentially significant” and which warrant further analysis in a subsequent environmental document. The checklist also identifies those issues which are considered less than significant or not applicable, and for which no further analysis is required.

PORT SAN LUIS HARBOR DISTRICT
INITIAL STUDY CHECKLIST

1. AESTHETICS *Will the project:*	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
a) Create an aesthetically incompatible site open to public view?	☒	☐	☐	☐
b) Introduce a use within a scenic view open to public view?	☒	☐	☐	☐
c) Change the visual character of an area?	☒	☐	☐	☐
d) Create glare or night lighting, which may affect surrounding areas?	☒	☐	☐	☐
e) Impact unique geological or physical features?	☒	☐	☐	☐
f) Other: _____	☐	☐	☐	☐

Setting. The project site is located in a prominent location in view of coastal roadways, beaches, and areas of significant public recreational use. The existing visual character of the site is defined by large benched terraces, gravel roadways, storage areas, and variable coverage with vegetation within the site. Surrounding uses include open space, road infrastructure, access control structures at Diablo Canyon, roadside RV camping, and other facilities associated with the Port.

Impact. The project will introduce substantive new development, and potentially alter landforms, in a prominent coastal location. Much of the site is exposed to public view. The project will alter visual character, and may create glare or additional sources of light.

Conclusion. The Environmental Impact Report (EIR) will include a detailed visual analysis of the impacts of the project, in accordance with Harbor Terrace Planning Area Standard 10(c)(9). The analysis will address compatibility, impacts to scenic views, alterations in visual character, lighting, and alterations of landforms.

2. AGRICULTURAL and FORESTRY RESOURCES *Will the project:*	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
a) Convert prime agricultural land, per NRCS soil classification, to non-agricultural use?	☐	☐	☒	☐
b) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use?	☐	☐	☒	☐

2. AGRICULTURAL and FORESTRY RESOURCES	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
Will the project:				
c) Impair agricultural use of other property or result in conversion to other uses?	☐	☐	☒	☐
d) Conflict with existing zoning for agricultural use, or Williamson Act program?	☐	☐	☒	☐
e) Other: *Convert or impair use of timberland*	☐	☐	☒	☐

Setting. Project Elements. The following area-specific elements relate to the property's importance for agricultural production:

Land Use Category: Public Facilities

State Classification: Not prime or important farmland

Historic/Existing Commercial Crops: None

In Agricultural Preserve? No

Under Williamson Act contract? No

Impact. The project is located proximate to agricultural uses, where grazing is the dominant practice. No agricultural activities occur on the property. No significant impacts to agricultural resources are anticipated. The project will not convert prime farmland, conflict with existing zoning or agricultural use, and will not extend infrastructure or other development in a manner which could lead to additional farmland conversion. The project will not convert or impair use of timberland.

Conclusion. Based on the location, land use category, and existing condition of the project site, no potentially significant impacts are identified, and no additional substantial analysis appears to be necessary.

3. AIR QUALITY	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
Will the project:				
a) Violate any state or federal ambient air quality standard, or exceed air quality emission thresholds as established by County Air Pollution Control District?	☒	☐	☐	☐
b) Expose any sensitive receptor to substantial air pollutant concentrations?	☒	☐	☐	☐
c) Create or subject individuals to objectionable odors?	☐	☐	☒	☐
d) Be inconsistent with the District's Clean Air Plan?	☒	☐	☐	☐

3. AIR QUALITY

Will the project:	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
e) Result in a cumulatively considerable net increase of any criteria pollutant either considered in non-attainment under applicable state or federal ambient air quality standards that are due to increased energy use or traffic generation, or intensified land use change?	☒	☐	☐	☐
GREENHOUSE GASES				
f) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐
g) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☐	☐
h) Other: _____	☐	☐	☐	☐

Setting. The San Luis Obispo County Air Pollution Control District (SLOAPCD) has developed and updated their California Environmental Quality Act (CEQA) Air Quality Handbook (2012) to evaluate project specific impacts and help determine if air quality mitigation measures are needed, or if potentially significant impacts could result. To evaluate long-term emissions, cumulative effects, and establish countywide programs to reach acceptable air quality levels, a Clean Air Plan has been adopted (prepared by SLOAPCD).

Greenhouse Gas (GHG) Emissions are said to result in an increase in the earth's average surface temperature. This is commonly referred to as global warming. The rise in global temperature is associated with long-term changes in precipitation, temperature, wind patterns, and other elements of the earth's climate system. This is also known as climate change. These changes are now thought to be broadly attributed to GHG emissions, particularly those emissions that result from the human production and use of fossil fuels.

The passage of Assembly Bill (AB) 32, the California Global Warming Solutions Act (2006), recognized the need to reduce GHG emissions and set the GHG emissions reduction goal for the State of California into law. The law required that by 2020, State emissions must be reduced to 1990 levels. This is to be accomplished by reducing GHG emissions from significant sources via regulation, market mechanisms, and other actions. Subsequent legislation (e.g., Senate Bill [SB] 97, GHG Emissions bill) directed the California Air Resources Board (CARB) to develop statewide thresholds.

In March 2012, the SLOAPCD approved thresholds for GHG emission impacts, and these thresholds have been incorporated the SLOAPCD's CEQA Air Quality Handbook.

Impact. The project will result in the disturbance across much of the 32-acre property. This will result in the creation of construction dust and diesel particulate emissions, as well as short- and long-term

vehicle emissions during construction and use of the project site. These emissions may contribute to GHG emissions in the region and shall be evaluated for consistency with applicable plans.

Conclusion. The EIR will include modeling and evaluation of project-related emissions during both construction and operation, including GHGs. The EIR will include an evaluation of the project's consistency with applicable plans.

4. **BIOLOGICAL RESOURCES** ***Will the project:***	**Potentially Significant**	**Impact can & will be mitigated**	**Insignificant Impact**	**Not Applicable**
a) Result in a loss of unique or special status species* or their habitats?	☒	☐	☐	☐
b) Reduce the extent, diversity, or quality of native or other important vegetation?	☒	☐	☐	☐
c) Impact wetland or riparian habitat?	☒	☐	☐	☐
d) Interfere with the movement of resident or migratory fish or wildlife species, or factors, which could hinder the normal activities of wildlife?	☒	☐	☐	☐
e) Conflict with any regional plans or policies to protect sensitive species, or regulations of the California Department of Fish & Wildlife or U.S. Fish & Wildlife Service?	☒	☐	☐	☐
f) Other: _____	☐	☐	☐	☐

* **Species – as defined in Section15380 of the CEQA Guidelines, which includes all plant and wildlife species that fall under the category of rare, threatened, or endangered, as described in this section.**

Setting. On-site vegetation is a mix of ruderal, or disturbed areas, interspersed with non-native grassland, ornamental and native trees, and coastal scrub. A blue line coastal stream runs along the western border of the site between the site and Diablo Canyon Road. Additional drainages are located around the site's periphery. Oak woodlands occur in stands generally outside the project boundary. Sensitive species are known or suspected to occur in the vicinity.

Impact. The potential for sensitive resources to occur on-site is mixed; in ruderal, denuded areas, vegetation and habitat is limited to absent. In areas of coastal scrub, trees, and grassland, potential for occurrence of nesting birds or sensitive species increases. Furthermore, use of the site for camping and other recreational uses may have indirect effects at the site's fringes, where additional areas may be subject to use by pedestrians and pets.

Conclusion. The EIR will evaluate impacts to biological resources. Seasonal botanical surveys will provide more seasonal information regarding potential for sensitive plant species. The EIR will identify impacts related to sensitive species, habitat, wetland/riparian features, wildlife movements, and consistency with plans, including the LCP and Coastal Act.

5. CULTURAL RESOURCES

Will the project:	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
a) Disturb archaeological resources?	☒	☐	☐	☐
b) Disturb historical resources?	☒	☐	☐	☐
c) Disturb paleontological resources?	☒	☐	☐	☐
d) Other: _____	☐	☐	☐	☐

Setting. The project site is located in an area of relatively high archaeological sensitivity, with known significant archaeological sites in the area. The project site has been largely altered through extensive fill and grading over time; based on information presented in the 2003 Port Master Plan EIR, the potential for intact resources on-site is low, primarily due to substantial prior alteration.

Impact. A Phase I Survey and records search was prepared for the area encompassed by the Port San Luis Master Plan in 1996. No known resources have been mapped within the project site; however, sensitive resources are known to occur in the vicinity.

Conclusion. The EIR will address impacts related to potential cultural resources on-site and in the vicinity, based on existing literature. Native American representatives will be contacted during environmental scoping.

6. GEOLOGY AND SOILS

Will the project:	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
a) Result in exposure to or production of unstable earth conditions, such as landslides, earthquakes, liquefaction, ground failure, land subsidence or other similar hazards?	☒	☐	☐	☐
b) Be within a California Geological Survey "Alquist-Priolo" Earthquake Fault Zone," or other known fault zones*?	☒	☐	☐	☐
c) Result in soil erosion, topographic changes, loss of topsoil or unstable soil conditions from project-related improvements, such as vegetation removal, grading, excavation, or fill?	☒	☐	☐	☐
d) Include structures located on expansive soils?	☒	☐	☐	☐

6. GEOLOGY AND SOILS

Will the project:	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
e) ***Be inconsistent with the goals and policies of the County's Safety Element relating to Geologic and Seismic Hazards?***	☒	☐	☐	☐
f) ***Preclude the future extraction of valuable mineral resources?***	☐	☐	☐	☒
g) ***Other:*** _____	☐	☐	☐	☐

* **Per Division of Mines and Geology Special Publication #42**

Setting. The site consists of a series of benched terraces; topography varies from level to in excess of 20 percent. The project site is within a Geologic Study Area and is subject to the preparation of a geological report per the County's CZLUO, Section 23.07.084(c), to evaluate the area's geological stability. A geotechnical report is underway. The site does not support mining activity, and the immediate area is not known to contain valuable mineral resources.

Impact. The project will include disturbance over much of the 32-acre site, including potential alteration of landforms and terraces. Geotechnical studies are underway to evaluate risks related to geologic and seismic hazards, including evaluation of a potential fault trace.

Conclusion. The EIR will include the findings of the geotechnical studies, and evaluate impacts related to geologic and seismic hazards.

7. HAZARDS & HAZARDOUS MATERIALS

Will the project:	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
a) ***Create a hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?***	☐	☐	☒	☐
b) ***Create a hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?***	☒	☐	☐	☐
c) ***Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼-mile of an existing or proposed school?***	☐	☐	☐	☒

7. HAZARDS & HAZARDOUS MATERIALS	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
Will the project:				
d) Be located on, or adjacent to, a site which is included on a list of hazardous material/waste sites compiled pursuant to Gov't Code 65962.5 ("Cortese List"), and result in an adverse public health condition?	☒	☐	☐	☐
e) Impair implementation or physically interfere with an adopted emergency response or evacuation plan?	☒	☐	☐	☐
f) If within the Airport Review designation, or near a private airstrip, result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Increase fire hazard risk or expose people or structures to high wildland fire hazard conditions?	☒	☐	☐	☐
h) Be within a 'very high' fire hazard severity zone?	☒	☐	☐	☐
i) Be within an area classified as a 'state responsibility' area as defined by CalFire?	☒	☐	☐	☐
j) Other: _____	☐	☐	☐	☐

Setting. The project site is not listed on current hazardous materials site lists compiled according to the Section 65962.5 of the Government Code.[a] However, risks related to hazardous materials may be present, associated with prior use of the site as fuel and oil storage. The project is within a 'high' or 'very high' severity risk area for fire. The project is not within the Airport Review area. The project is within an area defined by the California Department of Forestry and Fire Protection (CAL FIRE) as a "state responsibility" area.

Impact. The project does not propose the long-term use of hazardous materials, or the generation of hazardous wastes. The project will, however, entail development of a site with evidence of prior hazardous materials use, and will pose temporary risks related to hazardous materials release during construction. The development of the site may present a significant fire safety risk. The project may conflict with regional emergency response or evacuation plan. The project is not within an Airport Review area and will not pose safety hazards related to airport operations.

[a] SWCA review of List of Leaking Underground Storage Tank Sites by County and Fiscal Year from Water Board GeoTracker database, found at http://www.calepa.ca.gov/sitecleanup/corteselist/ and California Environmental Protection Agency (CalEPA) Department of Toxic Substances Control (DTSC) Geotracker Database. Available at: <https://geotracker.waterboards.ca.gov>. Accessed 2.27.2017

Conclusion. The EIR will evaluate impacts related to hazards, including potential disturbance of an area of known prior contamination, impacts related to evacuation/emergency response, and impacts related to fire hazard. The project is not located in an area subject to Airport Review. The project will not generate or use hazardous materials long term; however, any potential for public exposure or soil/water contamination as a result of accidental spills or fuel/oil leaks will be addressed in the analysis.

8. NOISE ***Will the project:***	**Potentially Significant**	**Impact can & will be mitigated**	**Insignificant Impact**	**Not Applicable**
a) Expose people to noise levels that exceed the County Noise Element thresholds?	☒	☐	☐	☐
b) Generate permanent increases in the ambient noise levels in the project vicinity?	☒	☐	☐	☐
c) Cause a temporary or periodic increase in ambient noise in the project vicinity?	☒	☐	☐	☐
d) Expose people to severe noise or vibration?	☒	☐	☐	☐
e) If located within the Airport Review designation or adjacent to a private airstrip, expose people residing or working in the project area to severe noise levels?	☐	☐	☐	☒
f) Other: _____	☐	☐	☐	☐

Setting. The project is located in an area of variable noise levels, associated with periods of higher recreational use and associated vehicle traffic, as well as periods of high traffic and the Diablo Canyon entrance.

Impact. Construction of the project will temporarily increase noise levels in the project vicinity, including areas occupied by recreational uses. Occupancy of the project may periodically increase noise levels associated with vehicle traffic. Occupants of the project may be exposed to noise from Avila Beach Drive, among other sources. The project is not located within an Airport Review area, and will not expose populations to airport-related noise.

Conclusion. The EIR will address temporary and permanent noise impacts related to the project.

9. POPULATION/HOUSING

Will the project:	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
a) Induce substantial growth in an area either directly (e.g., construct new homes or businesses) or indirectly (e.g., extension of major infrastructure)?	☐	☐	☒	☐
b) Displace existing housing or people, requiring construction of replacement housing elsewhere?	☐	☐	☒	☐
c) Create the need for substantial new housing in the area?	☐	☐	☒	☐
d) Other: _____	☐	☐	☐	☐

Setting. The project is located within District property; existing development consists of port-related facilities, including parking, piers, restaurants, meeting space, recreational vehicle camping, and marine storage. The project site formerly included several mobile homes and recreational vehicles; closure of the mobile home park was completed in Fall 2013. Remaining structures are currently proceeding through the surplus sale process.

Impact. The project consists of camping, recreational vehicle parking, and limited supportive services. The project does not constitute substantial growth. The project would not substantially increase homes or business square footage in the area, or extend infrastructure, such that additional effects may occur. The project does not displace housing or people. The project would not generate substantial new need for housing; the dominant population using the site would be transient (recreational); additional employment opportunities would be limited to facility operation, likely generating less than 15 full-time employment opportunities. This minor amount of employment growth is not considered substantial.

Conclusion. No significant population and housing impacts are anticipated. The project consists of recreational facilities and limited supportive services. The project does not displace housing or people, does not create the need for substantial new housing, and does not construct substantial homes or businesses or otherwise extend infrastructure such that additional growth may occur. Impacts are considered less than significant and no further analysis is likely required.

10. PUBLIC SERVICES/ UTILITIES

Will the project have an effect upon, or result in the need for new or altered public services in any of the following areas:	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
a) Fire protection?	☒	☐	☐	☐

10. PUBLIC SERVICES/ UTILITIES

	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
Will the project have an effect upon, or result in the need for new or altered public services in any of the following areas:				
b) Police protection (e.g., Sheriff, CHP)?	☒	☐	☐	☐
c) Schools?	☐	☐	☐	☒
d) Roads?	☒	☐	☐	☐
e) Solid Wastes?	☒	☐	☐	☐
f) Other public facilities?	☐	☐	☐	☒
g) Other: _____	☐	☐	☐	☐

Setting. The project area is served by the following public services/facilities:

Police: County Sheriff Location: Los Osos

Fire: CAL FIRE (formerly CDF) Hazard Severity: High Response Time: 5-10 minutes

School District: Lucia Mar Unified School District

Solid waste generated on-site is disposed of at Cold Canyon Landfill, south of the city of San Luis Obispo. The County maintains roads in the area; roads on-site would be subject to maintenance by the District.

Impact. The project will not generate additional school-age population. The project would increase development and transient (tourist) populations in areas subject to fire and police protection. The project may increase use of local roads, requiring additional maintenance. The adequacy of emergency access will require evaluation. The project will generate additional solid waste, requiring disposal.

Conclusion. The EIR will include evaluation of impacts related to fire and police protection, as well as roads and solid waste disposal. The project will not generate additional school-age population; therefore, no further evaluation of this topic is required.

11. RECREATION

	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
Will the project:				
a) Increase the use or demand for parks or other recreation opportunities?	☒	☐	☐	☐

11. RECREATION

	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
Will the project:				
b) Affect the access to trails, parks or other recreation opportunities?	☒	☐	☐	☐
c) Other _____	☐	☐	☐	☐

Setting. The project site is proximate to, or identified as integral to, existing or planned trail systems. The proposed project is located in a recreational area, subject to relatively heavy use. Existing facilities include trails, beaches and beach access, boating, fishing, bicycling, and camping.

Impact. The proposed project will expand recreational opportunities in the area. The project will introduce additional tourist population by expanding recreational opportunities. The project is proximate to the beach, and may impact access patterns to existing trails and beach areas.

Conclusion. The EIR will evaluate impacts related to recreational facilities, including coastal access and use/demand.

12. TRANSPORTATION/ CIRCULATION

	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
Will the project:				
a) Increase vehicle trips to local or areawide circulation system?	☒	☐	☐	☐
b) Reduce existing "Level of Service" on public roadway(s)?	☒	☐	☐	☐
c) Create unsafe conditions on public roadways (e.g., limited access, design features, sight distance, slow vehicles)?	☒	☐	☐	☐
d) Provide for adequate emergency access?	☒	☐	☐	☐
e) Conflict with an established measure of effectiveness for the performance of the circulation system considering all modes of transportation (e.g., LOS, mass transit, etc.)?	☒	☐	☐	☐
f) Conflict with an applicable congestion management program?	☒	☐	☐	☐

12. TRANSPORTATION/ CIRCULATION	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
Will the project:				
g) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☒	☐	☐	☐
h) Result in a change in air traffic patterns that may result in substantial safety risks?	☐	☐	☐	☒
i) Other: _____	☐	☐	☐	☐

Setting. Primary access to the project site is provided via Avila Beach Drive, from either an unnamed access road on the west, or Babe Lane on the east.

Impact. The project will introduce new camping, RV parking, and supportive services in an area with a constrained circulation system. Impacts of recreational traffic will be of particular concern during holiday and summer weekend periods. The project area includes existing or planned bicycle and pedestrian systems; construction and operation of the project may temporarily or permanently impact such facilities. The project may also create periods of congestion at the intersection of Diablo Canyon Road, Avila Beach Drive, and the project entrance. The project will not result in changes in air traffic patterns; the nearest airport is in the city of San Luis Obispo, and development on-site will not impact air traffic patterns in the area.

Conclusion. The EIR will include an evaluation of impacts marked as potentially significant above; the project will not impact air traffic patterns and no further analysis of this issue is required.

13. WASTEWATER	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
Will the project:				
a) Violate waste discharge requirements or Central Coast Basin Plan criteria for wastewater systems?	☐	☐	☒	☐
b) Change the quality of surface or ground water (e.g., nitrogen-loading, day-lighting)?	☐	☐	☐	☒
c) Adversely affect community wastewater service provider?	☒	☐	☐	☐
d) Other: _____	☐	☐	☐	☐

Setting. Wastewater service is provided via an existing agreement with Avila Beach Community Services District. The Harbor District is responsible for installation and maintenance of collection

infrastructure on its property. The District currently uses approximately 7% of its allotment at the treatment plant.

Impacts. The project will introduce new camping, recreational vehicle, and supportive services on the Harbor Terrace site. The project will not introduce uses which will impair the Community Services District's abilities to appropriately treat and dispose of wastewater. Wastewater from the project will be properly collected and treated, and will not affect the quality of surrounding waters.

Conclusion. The EIR will include an evaluation of the projected wastewater generation associated with the project, and a determination as to whether sufficient capacity exists. Potential impacts related to waste discharge requirements, and effects of wastewater on surface or groundwater quality are considered less than significant or not applicable and no further evaluation is needed.

14. WATER & HYDROLOGY ***Will the project:***	**Potentially Significant**	**Impact can & will be mitigated**	**Insignificant Impact**	**Not Applicable**
QUALITY				
a) Violate any water quality standards?	☒	☐	☐	☐
b) Discharge into surface waters or otherwise alter surface water quality (e.g., turbidity, sediment, temperature, dissolved oxygen, etc.)?	☒	☐	☐	☐
c) Change the quality of groundwater (e.g., saltwater intrusion, nitrogen-loading, etc.)?	☒	☐	☐	☐
d) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide additional sources of polluted runoff?	☒	☐	☐	☐
e) Change rates of soil absorption, or amount or direction of surface runoff?	☒	☐	☐	☐
f) Change the drainage patterns where substantial on- or off-site sedimentation/ erosion or flooding may occur?	☒	☐	☐	☐
g) Involve activities within the 100-year flood zone?	☒	☐	☐	☐
QUANTITY				
h) Change the quantity or movement of available surface or ground water?	☒	☐	☐	☐
i) Adversely affect community water service provider?	☒	☐	☐	☐

14. WATER & HYDROLOGY

Will the project:	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
j) Expose people to a risk of loss, injury or death involving flooding (e.g., dam failure, etc.), or inundation by seiche, tsunami or mudflow?	☒	☐	☐	☐
k) Other: _____	☐	☐	☐	☐

Setting. The project site consists of a benched terrace north of Avila Beach Drive. Existing surface water features include a blue line coastal stream, located at the western edge of the property near Diablo Canyon Road. On-site drainage is primarily surface sheet flow, which is informally routed across the site via a number of surface pipes and roadways. The project site is within or directly adjacent to a known tsunami hazard zone. Water supply is provided via an existing 100-acre-foot per year entitlement via County Service Area 12, which distributes water from Lopez Reservoir.

Impact – Water Quality/Hydrology. The development of the site will result in alterations in runoff and infiltration patterns on-site, potentially affecting nearby drainages, roadways, and the beach. Potential effects of site development and occupancy include, but are not limited to: alterations in quality or quantity of runoff water, increased sedimentation/erosion, increased potential for flooding, and alterations in infiltration potential or patterns. The occupancy of the site may also increase potential risks associated with tsunami and wave runup. Preliminary water supplies appear sufficient to serve the project; however, further documentation is warranted.

Conclusion. The EIR will evaluate impacts related to water and hydrology, including potential coastal hazards.

15. LAND USE

Will the project:	Inconsistent	Potentially Inconsistent	Consistent	Not Applicable
a) Be potentially inconsistent with land use, policy/regulation (e.g., general plan [County Land Use Element and Ordinance], local coastal plan, specific plan, Clean Air Plan, etc.) adopted to avoid or mitigate for environmental effects?	☐	☒	☐	☐
b) Be potentially inconsistent with any habitat or community conservation plan?	☐	☐	☐	☒
c) Be potentially inconsistent with adopted agency environmental plans or policies with jurisdiction over the project?	☐	☒	☐	☐

15. LAND USE

	Inconsistent	Potentially Inconsistent	Consistent	Not Applicable
Will the project:				
d) Be potentially incompatible with surrounding land uses?	☐	☒	☐	☐
e) Other: _____	☐	☐	☐	☐

Setting/Impact. Surrounding uses are identified on Page 2 of the Initial Study. Development proposals on the Harbor Terrace site are subject to a number of local planning documents and ordinances, including, but not limited to, the Port San Luis Harbor District Master Plan (2003), the County's San Luis Bay Area Plan – Coastal, and Coastal Plan Policies, as well as several sections of the County Code. The project is located in the Coastal Zone and shall be evaluated for consistency with Coastal Act policies. The project site is not within an area subject to a habitat or community conservation plan.

Conclusion. The EIR will evaluate consistency with surrounding land uses, and local, state, and federal plans, as applicable, including the Coastal Act.

16. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
Will the project:				
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☒	☐	☐	☐
b) 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)	☒	☐	☐	☐

16. MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
Will the project:				
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

Discussion. The project, as outlined in this Initial Study, may have one or more significant effects on the environment, including impacts related to biological resources, cultural resources, and impacts which may adversely affect humans. Therefore, an EIR is being prepared for the project. The EIR analysis will include evaluation of cumulative impacts.

Exhibit A – Initial Study References and Agency Contacts

The following checked ("☒") reference materials have been or will be used in the environmental review for the proposed project and are hereby incorporated by reference into the Initial Study. The following information is available at the County Planning and Building Department or at the offices of the Port San Luis Harbor District.

County documents

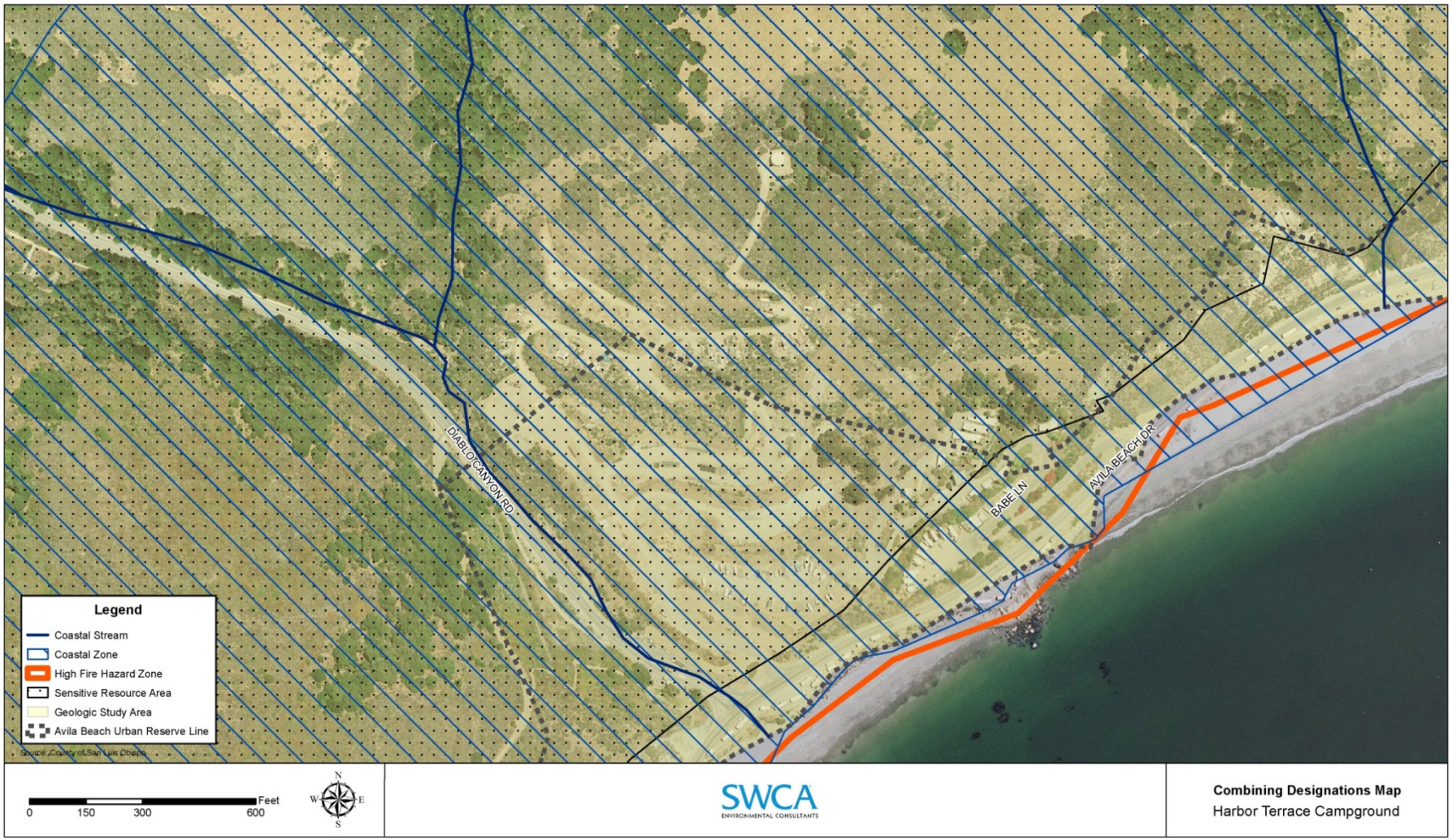
- ☒ Coastal Plan Policies
- ☒ Framework for Planning (Coastal/Inland)
- ☒ General Plan (Inland/Coastal), includes all maps/elements; more pertinent elements:
  - ☒ Agriculture Element
  - ☒ Conservation & Open Space Element
  - ☒ Economic Element
  - ☒ Housing Element
  - ☒ Noise Element
  - ☒ Parks & Recreation Element/Project List
  - ☒ Safety Element
- ☒ Land Use Ordinance (Inland/Coastal)
- ☒ Building and Construction Ordinance
- ☒ Public Facilities Fee Ordinance
- ☐ Real Property Division Ordinance
- ☐ Affordable Housing Fund
- ☐ Airport Land Use Plan
- ☒ Energy Wise Plan
- ☒ San Luis Bay Area Plan
- ☐ Design Plan
- ☒ Avila Specific Plan
- ☒ Annual Resource Summary Report
- ☒ Avila Circulation Study

Other documents

- ☒ Clean Air Plan/APCD Handbook
- ☒ Regional Transportation Plan
- ☒ Uniform Fire Code
- ☒ Water Quality Control Plan (Central Coast Basin – Region 3)
- ☒ Archaeological Resources Map
- ☒ Area of Critical Concerns Map
- ☒ Special Biological Importance Map
- ☒ CA Natural Species Diversity Database
- ☒ Fire Hazard Severity Map
- ☒ Flood Hazard Maps
- ☒ Natural Resources Conservation Service Soil Survey for SLO County
- ☒ GIS mapping layers (e.g., habitat, streams, contours, etc.)
- ☒ Other: Port San Luis Harbor District Master Plan and EIR (2003)

Exhibit B – Project Maps




DIABLO CANYON RD
BABE LN
AVILA BEACH DR
Legend
Coastal Stream
Coastal Zone
High Fire Hazard Zone
Sensitive Resource Area
Geologic Study Area
Avila Beach Urban Reserve Line
Source: County of San Luis Obispo
0
150
300
600
Feet
N
W
E
S
SWCA
ENVIRONMENTAL CONSULTANTS
Combining Designations Map
Harbor Terrace Campground


Diablo Canyon Rd
Avila Beach Dr
Legend
Project Area
Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community
Feet
0 250 500 1,000
N
W
E
S
SWCA
ENVIRONMENTAL CONSULTANTS
Project Location Map
Harbor Terrace Campground

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STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit

Edmund G. Brown Jr.
Governor

Ken Alex
Director

Notice of Preparation

March 7, 2014

To: Reviewing Agencies

Re: Port San Luis Harbor Terrace Development Plan
SCH# 2014031024

Attached for your review and comment is the Notice of Preparation (NOP) for the Port San Luis Harbor Terrace Development Plan draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Shawna Scott
San Luis Harbor District, Port of
c/o SWCA Environmental Consultants
1422 Monterey Street, C200
San Luis Obispo, CA 93401

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2014031024
Project Title Port San Luis Harbor Terrace Development Plan
Lead Agency San Luis Harbor District, Port of

Type NOP Notice of Preparation

Description Development Plan for the Harbor Terrace Site. Harbor Terrace is an ~32-acer portion of the District's landholdings associated with Port San Luis (Port).
The Harbor Terrace project will provide a range and mix of uses, with emphasis on coastal-related and visitor-serving uses, so that the land is financially and physically supportive of District operations.

Lead Agency Contact

Name Shawna Scott
Agency San Luis Harbor District, Port of
Phone 805 543-7095 x6811 **Fax**
email sscott@swca.com
Address c/o SWCA Environmental Consultants
1422 Monterey Street, C200
City San Luis Obispo **State** CA **Zip** 93401

Project Location

County San Luis Obispo
City
Region
Cross Streets
Lat / Long
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways
Airports
Railways
Waterways
Schools
Land Use

Project Issues Aesthetic/Visual; Air Quality; Biological Resources; Archaeologic-Historic; Geologic/Seismic; Toxic/Hazardous; Noise; Public Services; Recreation/Parks; Traffic/Circulation; Other Issues; Water Quality; Water Supply

Reviewing Agencies Department of Boating and Waterways; California Coastal Commission; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Wildlife, Region 4; Native American Heritage Commission; State Lands Commission; California Highway Patrol; Caltrans, District 5; Air Resources Board; Department of Toxic Substances Control; Resources Agency; Regional Water Quality Control Board, Region 3

Date Received 03/07/2014 **Start of Review** 03/07/2014 **End of Review** 04/07/2014

Note: Blanks in data fields result from insufficient information provided by lead agency.

NOP Distribution List SM

County: SAN LUIS OBISPO **SCH#** 2014031024

sources Agency

Resources Agency
Nadell Gayou

- [x] Dept. of Boating & Waterways
Nicole Wong
- [x] California Coastal Commission
Elizabeth A. Fuchs
- [ ] Colorado River Board
Tamya Trujillo
- [ ] Dept. of Conservation
Elizabeth Carpenter
- [ ] California Energy Commission
Eric Knight
- [ ] Cal Fire
Dan Foster
- [ ] Central Valley Flood Protection Board
James Herota
- [x] Office of Historic Preservation
Ron Parsons
- [ ] Dept of Parks & Recreation
Environmental Stewardship Section
- [ ] California Department of Resources, Recycling & Recovery
Sue O'Leary
- [ ] S.F. Bay Conservation & Dev't. Comm.
Steve McAdam
- [x] Dept. of Water Resources Resources Agency
Nadell Gayou

ish and Game

- [ ] Depart. of Fish & Wildlife
Scott Flint
Environmental Services Division
- [ ] Fish & Wildlife Region 1
Donald Koch
- [ ] Fish & Wildlife Region 1E
Laurie Harnsberger
- [ ] Fish & Wildlife Region 2
Jeff Drongesen
- [ ] Fish & Wildlife Region 3
Charles Armor
- [x] Fish & Wildlife Region 4
Julie Vance
- [ ] Fish & Wildlife Region 5
Leslie Newton-Reed
Habitat Conservation Program
- [ ] Fish & Wildlife Region 6
Gabrina Gatchel
Habitat Conservation Program
- [ ] Fish & Wildlife Region 6 I/M
Heidi Sickler
Inyo/Mono, Habitat Conservation Program
- [ ] Dept. of Fish & Wildlife M
George Isaac
Marine Region

Other Departments

- [ ] Food & Agriculture
Sandra Schubert
Dept. of Food and Agriculture
- [ ] Depart. of General Services
Public School Construction
- [ ] Dept. of General Services
Anna Garbeff
Environmental Services Section
- [ ] Dept. of Public Health
Jeffery Worth
Dept. of Health/Drinking Water
- [ ] Delta Stewardship Council
Kevan Samsam

Independent Commissions,Boards

- [ ] Delta Protection Commission
Michael Machado
- [ ] Cal EMA (Emergency Management Agency)
Dennis Castrillo
- [x] Native American Heritage Comm.
Debbie Treadway
- [ ] Public Utilities Commission
Leo Wong
- [ ] Santa Monica Bay Restoration
Guangyu Wang
- [x] State Lands Commission
Jennifer Deleong
- [ ] Tahoe Regional Planning Agency (TRPA)
Cherry Jacques

Business, Trans & Housing

- [ ] Caltrans - Division of Aeronautics
Philip Crimmins
- [ ] Caltrans - Planning
Terri Pencovic
- [x] California Highway Patrol
Suzann Ikeuchi
Office of Special Projects
- [ ] Housing & Community Development
CEQA Coordinator
Housing Policy Division

Dept. of Transportation

- [ ] Caltrans, District 1
Rex Jackman
- [ ] Caltrans, District 2
Marcelino Gonzalez
- [ ] Caltrans, District 3
Gary Arnold
- [ ] Caltrans, District 4
Erik Alm
- [x] Caltrans, District 5
David Murray
- [ ] Caltrans, District 6
Michael Navarro
- [ ] Caltrans, District 7
Dianna Watson
- [ ] Caltrans, District 8
Dan Kopulsky
- [ ] Caltrans, District 9
Gayle Rosander
- [ ] Caltrans, District 10
Tom Dumas
- [ ] Caltrans, District 11
Jacob Armstrong
- [ ] Caltrans, District 12
Maureen El Harake

Cal EPA

Air Resources Board

- [x] All Projects
CEQA Coordinator
- [ ] Transportation Projects
Nesamani Kalandiyur
- [ ] Industrial Projects
Mike Tollstrup
- [ ] State Water Resources Control Board
Regional Programs Unit
Division of Financial Assistance
- [ ] State Water Resources Control Board
Student Intern, 401 Water Quality Certification Unit
Division of Water Quality
- [ ] State Water Resouces Control Board
Phil Crader
Division of Water Rights
- [x] Dept. of Toxic Substances Control
CEQA Tracking Center
- [ ] Department of Pesticide Regulation
CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- [ ] RWQCB 1
Cathleen Hudson
North Coast Region (1)
- [ ] RWQCB 2
Environmental Document Coordinator
San Francisco Bay Region (2)
- [x] RWQCB 3
Central Coast Region (3)
- [ ] RWQCB 4
Teresa Rodgers
Los Angeles Region (4)
- [ ] RWQCB 5S
Central Valley Region (5)
- [ ] RWQCB 5F
Central Valley Region (5)
Fresno Branch Office
- [ ] RWQCB 5R
Central Valley Region (5)
Redding Branch Office
- [ ] RWQCB 6
Lahontan Region (6)
- [ ] RWQCB 6V
Lahontan Region (6)
Victorville Branch Office
- [ ] RWQCB 7
Colorado River Basin Region (7)
- [ ] RWQCB 8
Santa Ana Region (8)
- [ ] RWQCB 9
San Diego Region (9)

- [ ] Other _____
_____
_____
- [ ] _____
Conservancy

Last Updated 1 /29/2014

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SWCA
ENVIRONMENTAL CONSULTANTS
Sound Science. Creative Solutions.

San Luis Obispo Office
1422 Monterey Street, Suite C200
San Luis Obispo, CA 93401
Tel 805.543.7095 Fax 805.543.2367
www.swca.com

NOTICE OF PREPARATION: DRAFT ENVIRONMENTAL IMPACT REPORT

DATE: March 7, 2014

TO: Responsible and Trustee Agencies
Other Interested Parties

FROM: Port San Luis Harbor District and State Coastal Conservancy

PROJECT: Port San Luis Harbor Terrace Development Plan

The Port San Luis Harbor District (District) will be the lead agency for the preparation of an environmental impact report (EIR) for the Port San Luis Harbor Terrace project (project). A description of the project is provided in the attached Initial Study.

The District needs to know the views of your agency relative to the scope and content of the analysis to be provided in the EIR. In accordance with the time limits prescribed by State law, your response must be sent at the earliest date possible but not later than 30 days after receipt of this notice (**5:00 pm April 7, 2014**). Please provide us the following information:

1. **NAME OF CONTACT PERSON.** (Please include address, e-mail, and telephone number)

2. **PERMIT(S) or APPROVAL(S) AUTHORITY.** Please provide a summary description of these and send a copy of the relevant sections of legislation, regulatory guidance, etc.

3. **ENVIRONMENTAL INFORMATION.** What environmental information must be addressed in the EIR to enable your agency to use this documentation as a basis for your permit issuance or approval?

4. **PERMIT STIPULATIONS/CONDITIONS.** Please provide a list and description of standard stipulations (conditions) that your agency will apply to features of this project. Are there other conditions that have a high likelihood of application to a permit or approval for this project? If so, please list and describe.

5. **ALTERNATIVES.** What alternatives does your agency recommend be analyzed in the EIR?

6. **REASONABLY FORESEEABLE PROJECTS, PROGRAMS, or PLANS.** Please name any future projects, programs, or plans that you think may have an overlapping influence with the project as proposed.

7. **RELEVANT INFORMATION.** Please provide references for any available, appropriate documentation you believe may be useful to the District in preparing the EIR. Reference to and/or inclusion of such documents in an electronic format would be appreciated.

8. **FURTHER COMMENTS.** Please provide any further comments or information that will help the District to scope the document and determine the appropriate level of environmental assessment.

Please send your comments to:

Port San Luis Harbor District
c/o Shawna Scott, Project Manager
SWCA Environmental Consultants
1422 Monterey Street, C200
San Luis Obispo, CA 93401

A public scoping meeting has been scheduled for March 19, 2014, at 2:00 pm at the District's public meeting space at the Coastal Gateway Building, 3900 Avila Beach Drive, Avila Beach, California 93424. All interested parties are invited to attend. If you have any questions regarding the project or this notice, please call me at 805.543.7095, extension 6811, or email me at sscott@swca.com.

Sincerely,

Shawna Scott

Shawna Scott
Project Manager
(on behalf of the District)

Reference: California Administrative Code, Title 14, Section 15082

Attachments
Initial Study and Preliminary Project Description

2014031024

Initial Study Summary Environmental Checklist

PORT SAN LUIS HARBOR DISTRICT

3950 Avila Beach Drive ~ P.O. Box 249
Avila Beach, CA 93424
805.595.5400

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Project Title: Port San Luis Harbor Terrace Development Plan

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: The proposed project could have a "Potentially Significant Impact" for at least one of the environmental factors checked below. Please refer to the attached pages for discussion on mitigation measures or project revisions to either reduce these impacts to less than significant levels or require further study.

☒ Aesthetics	☒ Geology and Soils	☒ Recreation
☐ Agricultural Resources	☒ Hazards/Hazardous Materials	☒ Transportation/Circulation
☒ Air Quality	☒ Noise	☒ Wastewater
☒ Biological Resources	☐ Population/Housing	☒ Water /Hydrology
☒ Cultural Resources	☒ Public Services/Utilities	☐ Land Use

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation, the Lead Agency finds that:

☐ The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ The proposed 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.

☐ Although the proposed project could have a significant effect on the environment, because all potentially 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 proposed project, nothing further is required.

Shawna Scott on behalf of the Harbor District — Shawna Scott — March 3, 2014

Prepared by (Print) | Signature | Date

PROJECT ENVIRONMENTAL ANALYSIS

The Port San Luis Harbor District (District), as the lead agency in this project, is entering into environmental review as required by the California Environmental Quality Act (CEQA) and the CEQA Guidelines. The initial study provides a preliminary evaluation of the potential impacts that could arise from construction and occupancy of the proposed project based on current information (Exhibit A). The District has prepared this initial study to determine if the project would have a significant effect on the environment. This document, along with other information in the record, enables the District to decide whether to prepare an environmental impact report (EIR), or a negative declaration (ND), and informs the scope of the subsequent environmental document.

The project is subject to land use approval by the County of San Luis Obispo (County). This document is intended to provide information in support of the land use application pending with the County (DRC2013-00044).

Persons, agencies, or organizations interested in obtaining more information regarding this project should contact Steve McGrath, Harbor Manager, 3950 Avila Beach Drive, Avila Beach, CA 93424, or call (805) 595-5414.

A. PROJECT DESCRIPTION

The project is a proposal by the Port San Luis Harbor District (District) and the State Coastal Conservancy (Conservancy) for a Development Plan (Plan) for the Harbor Terrace site. The Plan is currently being developed; initiation of the initial study at this juncture is to help determine the scope and contents of the environmental document, allow the environmental review and scoping process to inform the Plan and alternatives development, and maximize opportunities for self-mitigation and alternatives analysis. The level of specificity of the project description and evaluation is commensurate with the level of project detail available at the time this initial study was prepared.

Harbor Terrace is an approximately 32-acre portion of the District's landholdings associated with Port San Luis (Port). District property is generally bound by Pacific Gas and Electric (PG&E) property on the north, the Pacific Ocean on the west, Avila Beach Drive and the Pacific Ocean on the south, and private undeveloped property on the east. The project is located on the north side of Avila Beach Drive, east of the intersection of Avila Beach Drive and Diablo Canyon Road, approximately 1 mile west of the community of Avila Beach, in the San Luis Bay (Coastal) planning area (refer to Exhibit B).

The Harbor Terrace project shall comply with the San Luis Bay Coastal Area Plan Local Coastal Plan (LCP) so as to not require an amendment to this plan. In compliance with the LCP, the project program will include a mix of tent sites; tent cabins, bungalows, inns, or yurts; full service recreational vehicle (RV) camp sites; other related amenities such as a food and beverage retail store and/or an eating and drinking establishment; parking; and storage facilities to serve the Port. The project will improve upon existing circulation, revegetate portions of the site with native habitat, and employ engineering solutions that meet or exceed new County of San Luis Obispo (County) and Regional Water Quality Control Board (RWQCB) stormwater regulations.

The following is a summary of existing goals and policies which apply to the site, and the manner in which the proposed project complies. More detail regarding policy consistency will become available as the project develops. The EIR will contain a full evaluation of the project's consistency with applicable plans and policies.

San Luis Bay Coastal Area – Goals & Policies for the Harbor Terrace Planning Sub-Area

The project will conform to the following goals and policies put forth in Chapter 8 (Planning Area Standards) of the San Luis Bay Coastal Area Plan (Adopted/Certified in 1988 and Revised August 2009) for the Harbor Terrace Planning Sub-Area (see page 8-20):

Development Intent: The Harbor Terrace project will provide a range and mix of uses, with emphasis on coastal-related and visitor-serving uses, so that the land is financially and physically supportive of District operations.

Harbor Users: The Harbor Terrace project must provide space to accommodate current and future District and other user needs including gear storage, trailer boat storage, and other harbor uses.

Visitor Uses: The Harbor Terrace project will provide visitor-serving retail uses that are complementary to the harbor so the project may enhance the public's enjoyment in ways that financially and physically support the District's public functions. The project program must include overnight accommodations and commercial uses according to market demand and feasibility. Overnight accommodations shall include affordable visitor serving facilities.

Environmental Performance: The Harbor Terrace project shall integrate site and building design techniques that are environmentally sensitive and energy conserving.

Pedestrian Access: New visitor-serving developments on Harbor Terrace shall incorporate measures to provide safe pedestrian access onsite and coordinate access to the beach and other Port facilities.

Prescribed Uses: The Harbor Terrace project shall allow trailer boat and gear storage, eating and drinking establishments, food and beverage retail sales (e.g., market or commissary), yachting and rowing clubs, paths, trails, scenic overlooks and sightseeing facilities, public parking, picnicking, accessory storage, hotels and motels (e.g., camping, bungalows, tent cabins, inns, casitas, bed and breakfast), recreational vehicle parks, meeting facilities, group camping, passive recreation, communication facilities, specialized programs, outdoor retail sales, Harbor Operations (including offices, storage and maintenance yard), public safety facilities, temporary events, interpretive displays and exhibits, shuttle station, aquaculture, and mariculture.

Road, Infrastructure, and Service Restrictions: The San Luis Bay Coastal Area Plan precludes the project from extending roads, infrastructure, services, or other development connections through the Harbor Terrace property to other non-District properties. This restriction does not preclude trailhead connections.

San Luis Bay Coastal Area – Planning Criteria for the Harbor Terrace Planning Sub - Area

The project will conform to the following Planning Criteria put forth in Chapter 8 (Planning Area Standards) of the San Luis Bay Coastal Area Plan (Adopted/Certified in 1988 and Revised August 2009) for Harbor Terrace Planning Sub-Area (see pages 8-22 to 8-25):

Priority of Uses: Proposed uses of the project shall include sufficient area for the highest priority coastal-dependent and coastal-related uses. Other uses shall be designed and constructed to avoid interference with coastal-dependent and coastal-related uses. To ensure the project provides adequate facilities necessary to serve the highest priority uses and does not reduce opportunities for lower cost visitor-serving uses and coastal access and recreation, the project program shall provide the following:

1. Minimum Required Uses: A minimum of 70 trailer boat storage spaces, 20 marine gear storage spaces, 48,000 square feet of general public parking (which includes public parking for a possible Harbor Office meeting room), and 10,000 square feet of expansion area that will be reserved to accommodate coastal-dependent and coastal-related uses. These uses shall be located in the western and southwestern portions of the site in order to maximize proximity to the coast and other associated harbor facilities, unless another location is equally sufficient.

2. Prescribed Use Ratios: A minimum of one lower-cost campsite (car or walk-in/bike-in tent campsite) must be provided for every 1.5 units of hotel/motel (cabin, bungalow, inn, yurt, casita) development. A minimum of one lower-cost campsite (car or walk-in/bike-in tent campsite) must be provided for every three RV campsites.

3. Project Phasing Limitations: Permits necessary to construct the minimum number of lower-cost campsites (car or walk-in/bike-in tent campsites) must be approved prior to or concurrently with any permit approval for hotel/motel and/or commercial retail development on the project site, and the lower-cost campsites must be available for use within 1 year of the opening of the hotel/motel and/or commercial retail development.

4. Purpose of Commercial Uses: All commercial uses must serve coastal-dependent uses, coastal-related uses, and/or provide visitor-serving uses.

5. Intent of Accommodations: With the exception of an on-site campground host or campground facilities manager, all overnight accommodations to be developed on the project site shall be exclusively available to the general public for transient occupancy. The establishment or conversion of overnight accommodations to a private or members only use (e.g., timeshares or condominiums), or the implementation of any program to allow extended and exclusive use or occupancy of the facilities by an individual or limited group or segment of the public is prohibited.

6. Special Events: Specialized programs and temporary events are subject to land use approval consistent with the LCP. Outdoor events conducted on the site shall be planned and staged so that noise generated by the event, attendees, and traffic is minimized. Temporary events shall not interfere with harbor operations and boating and fishing activities.

Building and Site Design Requirements: New development shall be sited and designed to minimize the visual impacts of the development, including those related to light and glare, in order to preserve the scenic quality of the area as viewed from public viewing areas, adjacent roads, piers, beaches, and the ocean. Special attention shall be given to maintaining character of the Harbor area. This shall be accomplished by:

1. Commercial Use Location: Restricting the development of commercial retail facilities and structures (eating and drinking establishments, food and beverage retail sales, commissary, market, meeting rooms, parking, etc.) to the lower previously graded portions of the site, as depicted in Conceptual Harbor Terrace Plan Figure 8.7 of the San Luis Bay Coastal Area Plan.

2. Commercial Use Height Limitations: Limiting commercial retail facilities/structures and the harbor office/shop to two-stories with a maximum height of 25 feet.

3. Hotel Use Height Limitations: Limiting hotel motel units (yurts, cabins, inns, casitas, bungalows) to single-story with a maximum height of 15 feet.

4. Camping Use Location: Limiting the use of Assessor's Parcel Number (APN) 076-171-021 to walk-in/bike-in camping. The small, previously disturbed area on the northwest portion of the parcel adjacent to the existing access road may be used for structures necessary to serve the walk-in/bike-in campsites. No new road development or road improvements shall occur on APN 076-171-021, and vegetation removal shall be minimized. Each walk-in/bike-in site shall be limited to a level area or platform for a tent, picnic table, fire ring, and water spigot.

5. Aesthetics: Requiring that all development to be designed, colored, and sited to minimize visibility within the public viewshed.

    - Bulk: Project buildings shall avoid large, boxy structures by providing variations in height, articulated roof forms and pitch, and open space view corridors.
    - Materials: Structures shall blend in with the natural surroundings by using earth toned colors and materials. Reflective materials and finishes are prohibited.
    - Lighting: Lighting (particularly overhead street lights, should they be necessary) shall be minimized in number and shall be shielded to orient lighting downward.
    - Landscape: The project shall be landscaped with native vegetation where appropriate in order to soften the visual prominence of the new development and to restore the visual qualities of the site.

6. Landscape and Irrigation Plans: Identifying revegetation areas necessary to stabilize slopes and planting areas necessary to minimize visual impacts of grading/terracing and the proposed use of the site. Landscape plans shall utilize native plant species where appropriate, and shall be designed to minimize the visual impact of all development on the site as viewed from public viewing areas, piers, beaches, and the ocean. Alteration of natural landforms is to be minimized and any areas of cut/grading shall immediately be re-seeded using a native seed mix.

7. Restroom Location: Requiring a restroom building or other structures necessary to serve the campsites to be sited in the least visible portions of previously disturbed areas, and designed and landscaped to prevent its visibility from public view.

8. Water Tank Improvements: Requiring that any improvements or additions to the existing water tank to be limited to the minimum necessary to provide approved site development with water storage for domestic supply and fire protection purposes; shall be placed underground to the greatest degree feasible; and shall be sited, colored, and landscaped to minimize visibility from public viewing areas (including roads, piers, beaches, and offshore areas).

9. Visual Analysis: Requiring at the time of Coastal Development Permit application, or as part of an environmental review document, a detailed visual analysis which demonstrates that the visual and scenic character of the site will be preserved and improved where possible.

Biological Resources: To protect and enhance sensitive biological resources and habitat areas, including water quality, on and adjacent to the project site, the following measures shall include, but are not limited to:

1. Revegetation: The revegetation of all newly cut slopes with native species of local stock where appropriate.

2. Tree Replacement: The replacement of all oak trees in areas adjacent to existing oak woodland habitat, if the removal of such oak trees cannot be avoided. The number and replacement of trees shall be adequate to ensure that an equal or greater number of oak trees, in comparison to the number of trees removed, will be successfully established. A tree replacement program, including long-term maintenance measures, shall accompany any development plan that involves the removal of existing oak trees. This program will include strategies for improving natural oak recruitment.

3. Habitat Disturbance: Designing grading and construction activities to avoid disturbance of habitat (e.g., coastal scrub habitat) and minimize the removal of oak trees.

4. Setback Zones: The establishment, management, and maintenance of setback or buffer zones as habitat areas. The width of such setback/buffer areas shall be determined through a project specific biological analysis that identifies the minimum setback/buffer area necessary to protect the biological productivity of sensitive habitat areas. Setback areas necessary for fire safety shall be identified in the development plan and shall be designed to avoid the removal or disturbance of habitat areas. The width of the vegetative buffer area provided for the coastal stream adjacent to Diablo Canyon Road shall be no less than 50 feet.

5. Guest Education: Providing information to future guests regarding nature-viewing opportunities.

6. Designated Habitat Areas: The provision of designated areas for pets so that native habitat areas are avoided.

7. Grading: Grading for approved development shall be designed and implemented to minimize sedimentation impacts on adjacent surface water bodies including coastal streams and San Luis Bay. Construction activities such as grading and clearing shall be scheduled to avoid the rainy season.

8. Stormwater Management: Minimize impervious surfaces and install post development Best Management Practices (BMPs) to capture, infiltrate, and/or treat stormwater runoff. The objective of drainage improvements shall be to avoid any increase in the quantity and intensity of stormwater runoff exiting the site. Post construction BMPs shall be designed with adequate capacity to accommodate, at a minimum, the 85th percentile 24-hour runoff event.

9. Drainage Facilities: If drainage facilities are proposed to flow into the stream/drainage channel adjacent to Diablo Canyon Road, the stream channel shall be restored to provide both flow capacity and natural habitat.

10. Drainage Filtration: Filtering all drainage from parking facilities by using vegetated swales or oil/water separators to limit oil/grease pollution and the intensity of flow commonly associated with parking lots.

11. Limit Water Quality Impacts: Use all BMPs possible to limit water quality impacts and eliminate to the greatest degree feasible the need for additional culverts and ocean/beach disposal points.

Cultural Resources: Potential project impacts to cultural resources shall be evaluated, and the protection and/or mitigation for any significant resources identified shall be incorporated into the proposed site design in coordination with the State Historic Preservation Office (SHPO) and the local Chumash tribe. Archaeological field surveys shall be conducted prior to project construction activities. In accordance with Section 23.05.140 of the County Coastal Zone Land Use Ordinance (CZLUO), all construction activities shall cease should resources be identified during construction. In such an event, construction activities shall not re-commence until measures protecting and/or mitigating impacts to archaeological resources have been developed and approved by the Planning Director, Environmental Coordinator, SHPO, and Chumash tribe. No development shall occur west of Diablo Canyon Road other than restoration of the existing drainage course, and any cultural/archaeological preservation activities that have been coordinated and approved by the SHPO and representatives of the appropriate Chumash tribe.

Slope Stability: To reduce hazards on the project site, new structures designated for human occupation and use (e.g., hotels, motels, campsites, parking lots, offices, commercial areas) must demonstrate a static factor of safety with respect to slope stability of 1.5 and a pseudostatic factor of safety to 1.1, using a horizontal seismic coefficient of 0.15g. In addition, uses on the project site or slopes above it that would have a significant potential to saturate the soils and add further slope instability, such as drainage detention basins or septic systems, shall be prohibited.

Access. Access to the site will likely utilize existing vehicular entries from Avila Beach Drive. The site design will incorporate measures to provide safe pedestrian access onsite and coordinate access to the beach and other Port facilities.

Total area of paving and structures. The total area of all paving and structures is unknown at this time. The project aims to implement Low Impact Development strategies that will allow the project to meet or exceed intent and requirements of new County stormwater regulations. The project will minimize impervious surfaces and utilize post development BMPs to capture infiltrate, and/or treat stormwater runoff.

Total area of grading or removal of ground cover. The total area subject to grading or removal of ground cover is unknown at this time. Grading for approved development shall be designed and implemented to minimize sedimentation impacts on adjacent surface water bodies including coastal streams and San Luis Bay. Construction activities such as grading and clearing shall be scheduled to avoid the rainy season.

Number of trees to be removed. The number of trees to be removed is unknown at this time. The project will include the replacement of all oak trees in areas adjacent to existing oak woodland habitat, if the removal of such oak trees cannot be avoided. The number and replacement of trees shall be adequate to ensure that an equal or greater number of oak trees, in comparison to the number of trees removed, will be successfully established. A tree replacement program, including long-term

maintenance measures, shall accompany any development plan that involves the removal of existing oak trees. This program will include strategies for improving natural oak recruitment.

Height and Type of tallest structure. The commercial retail structures and the harbor office/shop will not exceed two stories with a maximum height of 25 feet.

Setbacks. No part of a recreational vehicle is to be located closer than 25 feet to any street property line, and no closer than 30 feet to any interior property line. No RV or tent is to be located closer than 10 feet to any other RV or tent.

Timing. Development plan approval is anticipated in 2015. The potential construction timeline is currently under development.

ASSESSOR PARCEL NUMBER(S): 076-172-002 and 076-172-010

The Port San Luis Harbor District also acquired from Eureka Energy Company: portion of APN 076-171-018,-021, and 076-172-019,-022. Subsequent to recording of public lot, a new APN will be assigned to the property.

B. EXISTING SETTING

PLANNING AREA: San Luis Bay, Coastal

LAND USE CATEGORY: Public Facility

COMBINING DESIGNATION(S): Archaeologically Sensitive (AS), Coastal Appealable Zone (CAZ), Coastal Special Community CSC, Geologically Sensitive (GS), Local Coastal Plan (LCP), Sensitive Resource Area (SRA)

TOPOGRAPHY: Steeply sloping, variable

VEGETATION: Mixed, ruderal, grassland, coastal scrub, ornamental and native trees

PARCEL SIZE: Approximately 32 acres

EXISTING USES: The project property is a significantly graded, terraced site with some paved circulation on the lower portion of the site. Current uses and existing structures include a former District office building and boat, gear and other storage areas serving the Port.

SURROUNDING LAND USE CATEGORIES AND USES:

North: Agriculture, undeveloped

East: Agriculture, undeveloped

South: Road infrastructure and public beach

West: Agriculture, Public Utility, undeveloped

C. ENVIRONMENTAL ANALYSIS

The following checklist identifies those issue areas considered "potentially significant" and which warrant further analysis in a subsequent environmental document. The checklist also identifies those issues which are considered less than significant or not applicable, and for which no further analysis is required.

PORT SAN LUIS HARBOR DISTRICT
INITIAL STUDY CHECKLIST

1. AESTHETICS *Will the project:*	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
a) Create an aesthetically incompatible site open to public view?	☒	☐	☐	☐
b) Introduce a use within a scenic view open to public view?	☒	☐	☐	☐
c) Change the visual character of an area?	☒	☐	☐	☐
d) Create glare or night lighting, which may affect surrounding areas?	☒	☐	☐	☐
e) Impact unique geological or physical features?	☒	☐	☐	☐
f) Other: _____	☐	☐	☐	☐

Setting. The project site is located in a prominent location in view of coastal roadways, beaches, and areas of significant public recreational use. The existing visual character of the site is defined by large benched terraces, gravel roadways, storage areas, and variable coverage with vegetation within the site. Surrounding uses include open space, road infrastructure, access control structures at Diablo Canyon, roadside RV camping, and other facilities associated with the Port.

Impact. The project will introduce substantive new development, and potentially alter landforms, in a prominent coastal location. Much of the site is exposed to public view. The project will alter visual character, and may create glare or additional sources of light.

Conclusion. The Environmental Impact Report (EIR) will include a detailed visual analysis of the impacts of the project, in accordance with Harbor Terrace Planning Area Standard 10(c)(9). The analysis will address compatibility, impacts to scenic views, alterations in visual character, lighting, and alterations of landforms.

2. AGRICULTURAL and FORESTRY RESOURCES *Will the project:*	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
a) Convert prime agricultural land, per NRCS soil classification, to non-agricultural use?	☐	☐	☒	☐
b) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use?	☐	☐	☒	☐

2. AGRICULTURAL and FORESTRY RESOURCES	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
Will the project:				
c) Impair agricultural use of other property or result in conversion to other uses?	☐	☐	☒	☐
d) Conflict with existing zoning for agricultural use, or Williamson Act program?	☐	☐	☒	☐
e) Other: *Convert or impair use of timberland*	☐	☐	☒	☐

Setting. Project Elements. The following area-specific elements relate to the property's importance for agricultural production:

Land Use Category: Public Facilities

Historic/Existing Commercial Crops: None

State Classification: Not prime or important farmland

In Agricultural Preserve? No

Under Williamson Act contract? No

Impact. The project is located proximate to agricultural uses, where grazing is the dominant practice. No agricultural activities occur on the property. No significant impacts to agricultural resources are anticipated. The project will not convert prime farmland, conflict with existing zoning or agricultural use, and will not extend infrastructure or other development in a manner which could lead to additional farmland conversion. The project will not convert or impair use of timberland.

Conclusion. Based on the location, land use category, and existing condition of the project site, no potentially significant impacts are identified, and no additional substantial analysis appears to be necessary.

3. AIR QUALITY	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
Will the project:				
a) Violate any state or federal ambient air quality standard, or exceed air quality emission thresholds as established by County Air Pollution Control District?	☒	☐	☐	☐
b) Expose any sensitive receptor to substantial air pollutant concentrations?	☒	☐	☐	☐
c) Create or subject individuals to objectionable odors?	☐	☐	☒	☐
d) Be inconsistent with the District's Clean Air Plan?	☒	☐	☐	☐

3. AIR QUALITY *Will the project:*	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
e) Result in a cumulatively considerable net increase of any criteria pollutant either considered in non-attainment under applicable state or federal ambient air quality standards that are due to increased energy use or traffic generation, or intensified land use change?	☒	☐	☐	☐
GREENHOUSE GASES				
f) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐
g) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☐	☐
h) Other: _____	☐	☐	☐	☐

Setting. The San Luis Obispo County Air Pollution Control District (SLOAPCD) has developed and updated their California Environmental Quality Act (CEQA) Air Quality Handbook (2012) to evaluate project specific impacts and help determine if air quality mitigation measures are needed, or if potentially significant impacts could result. To evaluate long-term emissions, cumulative effects, and establish countywide programs to reach acceptable air quality levels, a Clean Air Plan has been adopted (prepared by SLOAPCD).

Greenhouse Gas (GHG) Emissions are said to result in an increase in the earth's average surface temperature. This is commonly referred to as global warming. The rise in global temperature is associated with long-term changes in precipitation, temperature, wind patterns, and other elements of the earth's climate system. This is also known as climate change. These changes are now thought to be broadly attributed to GHG emissions, particularly those emissions that result from the human production and use of fossil fuels.

The passage of Assembly Bill (AB) 32, the California Global Warming Solutions Act (2006), recognized the need to reduce GHG emissions and set the GHG emissions reduction goal for the State of California into law. The law required that by 2020, State emissions must be reduced to 1990 levels. This is to be accomplished by reducing GHG emissions from significant sources via regulation, market mechanisms, and other actions. Subsequent legislation (e.g., Senate Bill [SB] 97, GHG Emissions bill) directed the California Air Resources Board (CARB) to develop statewide thresholds.

In March 2012, the SLOAPCD approved thresholds for GHG emission impacts, and these thresholds have been incorporated the SLOAPCD's CEQA Air Quality Handbook.

Impact. The project will result in the disturbance across much of the 32-acre property. This will result in the creation of construction dust and diesel particulate emissions, as well as short- and long-term

vehicle emissions during construction and use of the project site. These emissions may contribute to GHG emissions in the region and shall be evaluated for consistency with applicable plans.

Conclusion. The EIR will include modeling and evaluation of project-related emissions during both construction and operation, including GHGs. The EIR will include an evaluation of the project's consistency with applicable plans.

4. BIOLOGICAL RESOURCES *Will the project:*	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
a) Result in a loss of unique or special status species or their habitats?*	☒	☐	☐	☐
b) Reduce the extent, diversity, or quality of native or other important vegetation?	☒	☐	☐	☐
c) Impact wetland or riparian habitat?	☒	☐	☐	☐
d) Interfere with the movement of resident or migratory fish or wildlife species, or factors, which could hinder the normal activities of wildlife?	☒	☐	☐	☐
e) Conflict with any regional plans or policies to protect sensitive species, or regulations of the California Department of Fish & Wildlife or U.S. Fish & Wildlife Service?	☒	☐	☐	☐
f) Other: _____	☐	☐	☐	☐

* Species – as defined in Section15380 of the CEQA Guidelines, which includes all plant and wildlife species that fall under the category of rare, threatened, or endangered, as described in this section.

Setting. On-site vegetation is a mix of ruderal, or disturbed areas, interspersed with non-native grassland, ornamental and native trees, and coastal scrub. A blue line coastal stream runs along the western border of the site between the site and Diablo Canyon Road. Additional drainages are located around the site's periphery. Oak woodlands occur in stands generally outside the project boundary. Sensitive species are known or suspected to occur in the vicinity.

Impact. The potential for sensitive resources to occur on-site is mixed; in ruderal, denuded areas, vegetation and habitat is limited to absent. In areas of coastal scrub, trees, and grassland, potential for occurrence of nesting birds or sensitive species increases. Furthermore, use of the site for camping and other recreational uses may have indirect effects at the site's fringes, where additional areas may be subject to use by pedestrians and pets.

Conclusion. The EIR will evaluate impacts to biological resources. Seasonal botanical surveys will provide more seasonal information regarding potential for sensitive plant species. The EIR will identify impacts related to sensitive species, habitat, wetland/riparian features, wildlife movements, and consistency with plans, including the LCP and Coastal Act.

5. CULTURAL RESOURCES *Will the project:*	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
a) Disturb archaeological resources?	☒	☐	☐	☐
b) Disturb historical resources?	☒	☐	☐	☐
c) Disturb paleontological resources?	☒	☐	☐	☐
d) Other: _____	☐	☐	☐	☐

Setting. The project site is located in an area of relatively high archaeological sensitivity, with known significant archaeological sites in the area. The project site has been largely altered through extensive fill and grading over time; based on information presented in the 2003 Port Master Plan EIR, the potential for intact resources on-site is low, primarily due to substantial prior alteration.

Impact. A Phase I Survey and records search was prepared for the area encompassed by the Port San Luis Master Plan in 1996. No known resources have been mapped within the project site; however, sensitive resources are known to occur in the vicinity.

Conclusion. The EIR will address impacts related to potential cultural resources on-site and in the vicinity, based on existing literature. Native American representatives will be contacted during environmental scoping.

6. GEOLOGY AND SOILS *Will the project:*	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
a) Result in exposure to or production of unstable earth conditions, such as landslides, earthquakes, liquefaction, ground failure, land subsidence or other similar hazards?	☒	☐	☐	☐
b) Be within a California Geological Survey "Alquist-Priolo" Earthquake Fault Zone," or other known fault zones?*	☒	☐	☐	☐
c) Result in soil erosion, topographic changes, loss of topsoil or unstable soil conditions from project-related improvements, such as vegetation removal, grading, excavation, or fill?	☒	☐	☐	☐
d) Include structures located on expansive soils?	☒	☐	☐	☐

6. GEOLOGY AND SOILS *Will the project:*	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
e) *Be inconsistent with the goals and policies of the County's Safety Element relating to Geologic and Seismic Hazards?*	☒	☐	☐	☐
f) *Preclude the future extraction of valuable mineral resources?*	☐	☐	☐	☒
g) *Other:* _____	☐	☐	☐	☐

* Per Division of Mines and Geology Special Publication #42

Setting. The site consists of a series of benched terraces; topography varies from level to in excess of 20 percent. The project site is within a Geologic Study Area and is subject to the preparation of a geological report per the County's CZLUO, Section 23.07.084(c), to evaluate the area's geological stability. A geotechnical report is underway. The site does not support mining activity, and the immediate area is not known to contain valuable mineral resources.

Impact. The project will include disturbance over much of the 32-acre site, including potential alteration of landforms and terraces. Geotechnical studies are underway to evaluate risks related to geologic and seismic hazards, including evaluation of a potential fault trace.

Conclusion. The EIR will include the findings of the geotechnical studies, and evaluate impacts related to geologic and seismic hazards.

7. HAZARDS & HAZARDOUS MATERIALS *Will the project:*	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
a) *Create a hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*	☐	☐	☒	☐
b) *Create a hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*	☒	☐	☐	☐
c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼-mile of an existing or proposed school?*	☐	☐	☐	☒

7. HAZARDS & HAZARDOUS MATERIALS	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
Will the project:				
d) Be located on, or adjacent to, a site which is included on a list of hazardous material/waste sites compiled pursuant to Gov't Code 65962.5 ("Cortese List"), and result in an adverse public health condition?	☒	☐	☐	☐
e) Impair implementation or physically interfere with an adopted emergency response or evacuation plan?	☒	☐	☐	☐
f) If within the Airport Review designation, or near a private airstrip, result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Increase fire hazard risk or expose people or structures to high wildland fire hazard conditions?	☒	☐	☐	☐
h) Be within a 'very high' fire hazard severity zone?	☒	☐	☐	☐
i) Be within an area classified as a 'state responsibility' area as defined by CalFire?	☒	☐	☐	☐
j) Other: _____	☐	☐	☐	☐

Setting. The project site is not listed on current hazardous materials site lists compiled according to the Section 65962.5 of the Government Code.[a] However, risks related to hazardous materials may be present, associated with prior use of the site as fuel and oil storage. The project is within a 'high' or 'very high' severity risk area for fire. The project is not within the Airport Review area. The project is within an area defined by the California Department of Forestry and Fire Protection (CAL FIRE) as a "state responsibility" area.

Impact. The project does not propose the long-term use of hazardous materials, or the generation of hazardous wastes. The project will, however, entail development of a site with evidence of prior hazardous materials use, and will pose temporary risks related to hazardous materials release during construction. The development of the site may present a significant fire safety risk. The project may conflict with regional emergency response or evacuation plan. The project is not within an Airport Review area and will not pose safety hazards related to airport operations.

[a] SWCA review of List of Leaking Underground Storage Tank Sites by County and Fiscal Year from Water Board GeoTracker database, found at http://www.calepa.ca.gov/sitecleanup/corteselist/ and California Environmental Protection Agency (CalEPA) Department of Toxic Substances Control (DTSC) Geotracker Database. Available at: <https://geotracker.waterboards.ca.gov>. Accessed 2.27.2017

Conclusion. The EIR will evaluate impacts related to hazards, including potential disturbance of an area of known prior contamination, impacts related to evacuation/emergency response, and impacts related to fire hazard. The project is not located in an area subject to Airport Review. The project will not generate or use hazardous materials long term; however, any potential for public exposure or soil/water contamination as a result of accidental spills or fuel/oil leaks will be addressed in the analysis.

8. NOISE *Will the project:*	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
a) Expose people to noise levels that exceed the County Noise Element thresholds?	☒	☐	☐	☐
b) Generate permanent increases in the ambient noise levels in the project vicinity?	☒	☐	☐	☐
c) Cause a temporary or periodic increase in ambient noise in the project vicinity?	☒	☐	☐	☐
d) Expose people to severe noise or vibration?	☒	☐	☐	☐
e) If located within the Airport Review designation or adjacent to a private airstrip, expose people residing or working in the project area to severe noise levels?	☐	☐	☐	☒
f) Other: _____	☐	☐	☐	☐

Setting. The project is located in an area of variable noise levels, associated with periods of higher recreational use and associated vehicle traffic, as well as periods of high traffic and the Diablo Canyon entrance.

Impact. Construction of the project will temporarily increase noise levels in the project vicinity, including areas occupied by recreational uses. Occupancy of the project may periodically increase noise levels associated with vehicle traffic. Occupants of the project may be exposed to noise from Avila Beach Drive, among other sources. The project is not located within an Airport Review area, and will not expose populations to airport-related noise.

Conclusion. The EIR will address temporary and permanent noise impacts related to the project.

9. POPULATION/HOUSING *Will the project:*	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
a) Induce substantial growth in an area either directly (e.g., construct new homes or businesses) or indirectly (e.g., extension of major infrastructure)?	☐	☐	☒	☐
b) Displace existing housing or people, requiring construction of replacement housing elsewhere?	☐	☐	☒	☐
c) Create the need for substantial new housing in the area?	☐	☐	☒	☐
d) Other: _____	☐	☐	☐	☐

Setting. The project is located within District property; existing development consists of port-related facilities, including parking, piers, restaurants, meeting space, recreational vehicle camping, and marine storage. The project site formerly included several mobile homes and recreational vehicles; closure of the mobile home park was completed in Fall 2013. Remaining structures are currently proceeding through the surplus sale process.

Impact. The project consists of camping, recreational vehicle parking, and limited supportive services. The project does not constitute substantial growth. The project would not substantially increase homes or business square footage in the area, or extend infrastructure, such that additional effects may occur. The project does not displace housing or people. The project would not generate substantial new need for housing; the dominant population using the site would be transient (recreational); additional employment opportunities would be limited to facility operation, likely generating less than 15 full-time employment opportunities. This minor amount of employment growth is not considered substantial.

Conclusion. No significant population and housing impacts are anticipated. The project consists of recreational facilities and limited supportive services. The project does not displace housing or people, does not create the need for substantial new housing, and does not construct substantial homes or businesses or otherwise extend infrastructure such that additional growth may occur. Impacts are considered less than significant and no further analysis is likely required.

10. PUBLIC SERVICES/ UTILITIES *Will the project have an effect upon, or result in the need for new or altered public services in any of the following areas:*	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
a) Fire protection?	☒	☐	☐	☐

10. PUBLIC SERVICES/ UTILITIES	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
Will the project have an effect upon, or result in the need for new or altered public services in any of the following areas:				
b) Police protection (e.g., Sheriff, CHP)?	☒	☐	☐	☐
c) Schools?	☐	☐	☐	☒
d) Roads?	☒	☐	☐	☐
e) Solid Wastes?	☒	☐	☐	☐
f) Other public facilities?	☐	☐	☐	☒
g) Other: _____	☐	☐	☐	☐

Setting. The project area is served by the following public services/facilities:

Police: County Sheriff Location: Los Osos

Fire: CAL FIRE (formerly CDF) Hazard Severity: High Response Time: 5-10 minutes

School District: Lucia Mar Unified School District

Solid waste generated on-site is disposed of at Cold Canyon Landfill, south of the city of San Luis Obispo. The County maintains roads in the area; roads on-site would be subject to maintenance by the District.

Impact. The project will not generate additional school-age population. The project would increase development and transient (tourist) populations in areas subject to fire and police protection. The project may increase use of local roads, requiring additional maintenance. The adequacy of emergency access will require evaluation. The project will generate additional solid waste, requiring disposal.

Conclusion. The EIR will include evaluation of impacts related to fire and police protection, as well as roads and solid waste disposal. The project will not generate additional school-age population; therefore, no further evaluation of this topic is required.

11. RECREATION	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
Will the project:				
a) Increase the use or demand for parks or other recreation opportunities?	☒	☐	☐	☐

11. RECREATION *Will the project:*	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
b) Affect the access to trails, parks or other recreation opportunities?	☒	☐	☐	☐
c) Other _____	☐	☐	☐	☐

Setting. The project site is proximate to, or identified as integral to, existing or planned trail systems. The proposed project is located in a recreational area, subject to relatively heavy use. Existing facilities include trails, beaches and beach access, boating, fishing, bicycling, and camping.

Impact. The proposed project will expand recreational opportunities in the area. The project will introduce additional tourist population by expanding recreational opportunities. The project is proximate to the beach, and may impact access patterns to existing trails and beach areas.

Conclusion. The EIR will evaluate impacts related to recreational facilities, including coastal access and use/demand.

12. TRANSPORTATION/ CIRCULATION *Will the project:*	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
a) Increase vehicle trips to local or areawide circulation system?	☒	☐	☐	☐
b) Reduce existing "Level of Service" on public roadway(s)?	☒	☐	☐	☐
c) Create unsafe conditions on public roadways (e.g., limited access, design features, sight distance, slow vehicles)?	☒	☐	☐	☐
d) Provide for adequate emergency access?	☒	☐	☐	☐
e) Conflict with an established measure of effectiveness for the performance of the circulation system considering all modes of transportation (e.g., LOS, mass transit, etc.)?	☒	☐	☐	☐
f) Conflict with an applicable congestion management program?	☒	☐	☐	☐

12. TRANSPORTATION/ CIRCULATION	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
Will the project:				
g) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☒	☐	☐	☐
h) Result in a change in air traffic patterns that may result in substantial safety risks?	☐	☐	☐	☒
i) Other: _____	☐	☐	☐	☐

Setting. Primary access to the project site is provided via Avila Beach Drive, from either an unnamed access road on the west, or Babe Lane on the east.

Impact. The project will introduce new camping, RV parking, and supportive services in an area with a constrained circulation system. Impacts of recreational traffic will be of particular concern during holiday and summer weekend periods. The project area includes existing or planned bicycle and pedestrian systems; construction and operation of the project may temporarily or permanently impact such facilities. The project may also create periods of congestion at the intersection of Diablo Canyon Road, Avila Beach Drive, and the project entrance. The project will not result in changes in air traffic patterns; the nearest airport is in the city of San Luis Obispo, and development on-site will not impact air traffic patterns in the area.

Conclusion. The EIR will include an evaluation of impacts marked as potentially significant above; the project will not impact air traffic patterns and no further analysis of this issue is required.

13. WASTEWATER	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
Will the project:				
a) Violate waste discharge requirements or Central Coast Basin Plan criteria for wastewater systems?	☐	☐	☒	☐
b) Change the quality of surface or ground water (e.g., nitrogen-loading, day-lighting)?	☐	☐	☐	☒
c) Adversely affect community wastewater service provider?	☒	☐	☐	☐
d) Other: _____	☐	☐	☐	☐

Setting. Wastewater service is provided via an existing agreement with Avila Beach Community Services District. The Harbor District is responsible for installation and maintenance of collection

infrastructure on its property. The District currently uses approximately 7% of its allotment at the treatment plant.

Impacts. The project will introduce new camping, recreational vehicle, and supportive services on the Harbor Terrace site. The project will not introduce uses which will impair the Community Services District's abilities to appropriately treat and dispose of wastewater. Wastewater from the project will be properly collected and treated, and will not affect the quality of surrounding waters.

Conclusion. The EIR will include an evaluation of the projected wastewater generation associated with the project, and a determination as to whether sufficient capacity exists. Potential impacts related to waste discharge requirements, and effects of wastewater on surface or groundwater quality are considered less than significant or not applicable and no further evaluation is needed.

14. WATER & HYDROLOGY *Will the project:*	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
QUALITY				
a) Violate any water quality standards?	☒	☐	☐	☐
b) Discharge into surface waters or otherwise alter surface water quality (e.g., turbidity, sediment, temperature, dissolved oxygen, etc.)?	☒	☐	☐	☐
c) Change the quality of groundwater (e.g., saltwater intrusion, nitrogen-loading, etc.)?	☒	☐	☐	☐
d) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide additional sources of polluted runoff?	☒	☐	☐	☐
e) Change rates of soil absorption, or amount or direction of surface runoff?	☒	☐	☐	☐
f) Change the drainage patterns where substantial on- or off-site sedimentation/ erosion or flooding may occur?	☒	☐	☐	☐
g) Involve activities within the 100-year flood zone?	☒	☐	☐	☐
QUANTITY				
h) Change the quantity or movement of available surface or ground water?	☒	☐	☐	☐
i) Adversely affect community water service provider?	☒	☐	☐	☐

14. WATER & HYDROLOGY *Will the project:*	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
j) Expose people to a risk of loss, injury or death involving flooding (e.g., dam failure, etc.), or inundation by seiche, tsunami or mudflow?	☒	☐	☐	☐
k) Other: _____	☐	☐	☐	☐

Setting. The project site consists of a benched terrace north of Avila Beach Drive. Existing surface water features include a blue line coastal stream, located at the western edge of the property near Diablo Canyon Road. On-site drainage is primarily surface sheet flow, which is informally routed across the site via a number of surface pipes and roadways. The project site is within or directly adjacent to a known tsunami hazard zone. Water supply is provided via an existing 100-acre-foot per year entitlement via County Service Area 12, which distributes water from Lopez Reservoir.

Impact – Water Quality/Hydrology. The development of the site will result in alterations in runoff and infiltration patterns on-site, potentially affecting nearby drainages, roadways, and the beach. Potential effects of site development and occupancy include, but are not limited to: alterations in quality or quantity of runoff water, increased sedimentation/erosion, increased potential for flooding, and alterations in infiltration potential or patterns. The occupancy of the site may also increase potential risks associated with tsunami and wave runup. Preliminary water supplies appear sufficient to serve the project; however, further documentation is warranted.

Conclusion. The EIR will evaluate impacts related to water and hydrology, including potential coastal hazards.

15. LAND USE *Will the project:*	Inconsistent	Potentially Inconsistent	Consistent	Not Applicable
a) Be potentially inconsistent with land use, policy/regulation (e.g., general plan [County Land Use Element and Ordinance], local coastal plan, specific plan, Clean Air Plan, etc.) adopted to avoid or mitigate for environmental effects?	☐	☒	☐	☐
b) Be potentially inconsistent with any habitat or community conservation plan?	☐	☐	☐	☒
c) Be potentially inconsistent with adopted agency environmental plans or policies with jurisdiction over the project?	☐	☒	☐	☐

15. LAND USE	Inconsistent	Potentially Inconsistent	Consistent	Not Applicable
Will the project:				
d) Be potentially incompatible with surrounding land uses?	☐	☒	☐	☐
e) Other: _____	☐	☐	☐	☐

Setting/Impact. Surrounding uses are identified on Page 2 of the Initial Study. Development proposals on the Harbor Terrace site are subject to a number of local planning documents and ordinances, including, but not limited to, the Port San Luis Harbor District Master Plan (2003), the County's San Luis Bay Area Plan – Coastal, and Coastal Plan Policies, as well as several sections of the County Code. The project is located in the Coastal Zone and shall be evaluated for consistency with Coastal Act policies. The project site is not within an area subject to a habitat or community conservation plan.

Conclusion. The EIR will evaluate consistency with surrounding land uses, and local, state, and federal plans, as applicable, including the Coastal Act.

16. MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
Will the project:				
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☒	☐	☐	☐
b) 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)	☒	☐	☐	☐

16. MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
Will the project:				
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

Discussion. The project, as outlined in this Initial Study, may have one or more significant effects on the environment, including impacts related to biological resources, cultural resources, and impacts which may adversely affect humans. Therefore, an EIR is being prepared for the project. The EIR analysis will include evaluation of cumulative impacts.

Exhibit A – Initial Study References and Agency Contacts

The following checked ("☒") reference materials have been or will be used in the environmental review for the proposed project and are hereby incorporated by reference into the Initial Study. The following information is available at the County Planning and Building Department or at the offices of the Port San Luis Harbor District.

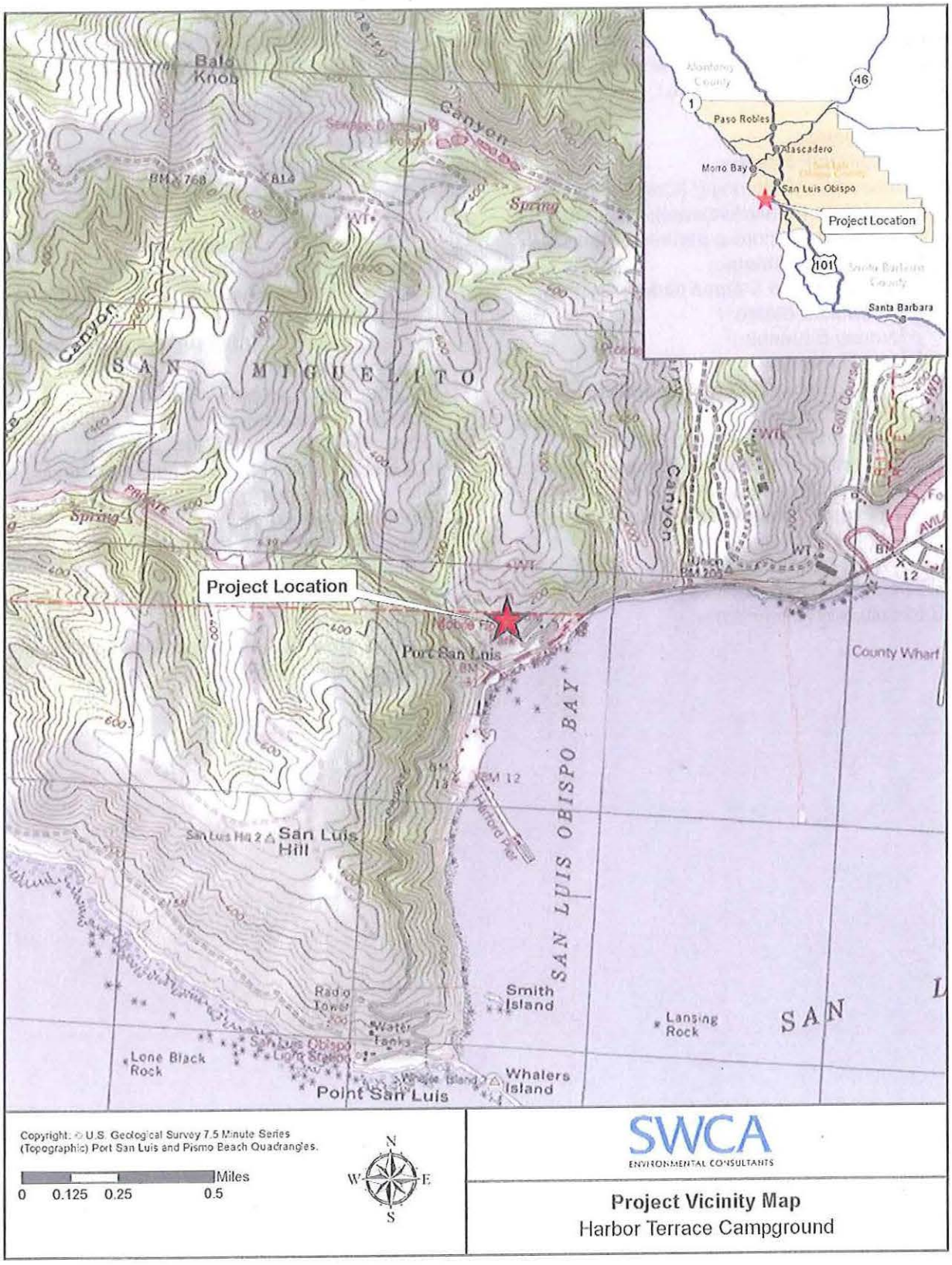
County documents

- ☒ Coastal Plan Policies
- ☒ Framework for Planning (Coastal/Inland)
- ☒ General Plan (Inland/Coastal), includes all maps/elements; more pertinent elements:
  - ☒ Agriculture Element
  - ☒ Conservation & Open Space Element
  - ☒ Economic Element
  - ☒ Housing Element
  - ☒ Noise Element
  - ☒ Parks & Recreation Element/Project List
  - ☒ Safety Element
- ☒ Land Use Ordinance (Inland/Coastal)
- ☒ Building and Construction Ordinance
- ☒ Public Facilities Fee Ordinance
- ☐ Real Property Division Ordinance
- ☐ Affordable Housing Fund
- ☐ Airport Land Use Plan
- ☒ Energy Wise Plan
- ☒ San Luis Bay Area Plan
- ☐ Design Plan
- ☒ Avila Specific Plan
- ☒ Annual Resource Summary Report
- ☒ Avila Circulation Study

Other documents

- ☒ Clean Air Plan/APCD Handbook
- ☒ Regional Transportation Plan
- ☒ Uniform Fire Code
- ☒ Water Quality Control Plan (Central Coast Basin – Region 3)
- ☒ Archaeological Resources Map
- ☒ Area of Critical Concerns Map
- ☒ Special Biological Importance Map
- ☒ CA Natural Species Diversity Database
- ☒ Fire Hazard Severity Map
- ☒ Flood Hazard Maps
- ☒ Natural Resources Conservation Service Soil Survey for SLO County
- ☒ GIS mapping layers (e.g., habitat, streams, contours, etc.)
- ☒ Other: Port San Luis Harbor District Master Plan and EIR (2003)

Exhibit B – Project Maps




DIABLO CANYON RD
BABE LN
AVILA BEACH DR
Legend
Coastal Stream
Coastal Zone
High Fire Hazard Zone
Sensitive Resource Area
Geologic Study Area
Avila Beach Urban Reserve Line
0
150
300
600
Feet
N
W
E
S
SWCA
ENVIRONMENTAL CONSULTANTS
Combining Designations Map
Harbor Terrace Campground


Diablo Canyon Rd
Avila Beach Dr
Legend
Project Area
Source: Esri, i-cubed, USDA, USGS, AEX
0 250 500 1,000
Feet
N
W
E
S
SWCA
ENVIRONMENTAL CONSULTANTS
Project Location Map
Harbor Terrace Campground

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AVILA BEACH
COMMUNITY SERVICES DISTRICT

Post Office Box 309, Avila Beach, CA 93424
Office and Meeting Room - 191 San Miguel Street, Avila Beach
Telephone (805) 595-2664 FAX (805) 595-7623
E-Mail Avilacsd@gmail.com

March 12, 2014

Port San Luis Harbor District
c/o Shawna Scott, Project Manager
SWCA Environmental Consultants
122 Monterey Street, C200
San Luis Obispo, CA 93401

Subject: Port San Luis Harbor Terrace Development Plan

Thank you for your recent communication relating to the preparation of an environmental impact report (EIR) for the Port San Luis Harbor Terrace Development.

Representatives for the District include:

Board President, Peter Kelley
General Manager, Kathryn Richardson
District Engineer, John Wallace

Contact Information is as follows:

Avila Beach CSD
P.O. Box 309,
Avila Beach CA 93424
805 595-2664
E-mail Avilacsd@aol.com

The Avila Beach CSD shares a Wastewater Treatment Facility with Port San Luis Harbor District, and as such, any wastewater being generated by this project will need to meet the requirements as identified in the agreement between our agencies.

If you are in need of any further information please contact our District at your earliest convenience.

Sincerely,

K. Richardson

Kathy Richardson
General Manager

RECEIVED MAR 19 2014

U.S. Department of Homeland Security
FEMA Region IX
1111 Broadway, Suite 1200
Oakland, CA. 94607-4052

FEMA

March 13, 2014

Shawna Scott, Project Manager
Port San Luis Harbor District
SWCA Environmental Consultants
1422 Monterey Street, C200
San Luis Obispo, California 93401

Dear Ms. Scott:

This is in response to your request for comments regarding Notice of Preparation: Draft Environmental Impact Report for Port San Luis Harbor Terrace Development Plan.

Please review the current effective countywide Flood Insurance Rate Maps (FIRMs) for the County of San Luis Obispo (Community Number 060304), Maps revised November 16, 2012. Please note that the County of San Luis Obispo, California is a participant in the National Flood Insurance Program (NFIP). The minimum, basic NFIP floodplain management building requirements are described in Vol. 44 Code of Federal Regulations (44 CFR), Sections 59 through 65.

A summary of these NFIP floodplain management building requirements are as follows:

- All buildings constructed within a riverine floodplain, (i.e., Flood Zones A, AO, AH, AE, and A1 through A30 as delineated on the FIRM), must be elevated so that the lowest floor is at or above the Base Flood Elevation level in accordance with the effective Flood Insurance Rate Map.

- If the area of construction is located within a Regulatory Floodway as delineated on the FIRM, any ***development*** must not increase base flood elevation levels. **The term *development* means any man-made change to improved or unimproved real estate, including but not limited to buildings, other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, and storage of equipment or materials.** A hydrologic and hydraulic analysis must be performed *prior* to the start of development, and must demonstrate that the development would not cause any rise in base flood levels. No rise is permitted within regulatory floodways.

- All buildings constructed within a coastal high hazard area, (any of the "V" Flood Zones as delineated on the FIRM), must be elevated on pilings and columns, so that the lowest horizontal structural member, (excluding the pilings and columns), is elevated to or above the base flood elevation level. In addition, the posts and pilings foundation and the structure attached thereto, is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components.

- Upon completion of any development that changes existing Special Flood Hazard Areas, the NFIP directs all participating communities to submit the appropriate hydrologic and hydraulic data to FEMA for a FIRM revision. In accordance with 44 CFR, Section 65.3, as soon as practicable, but not later than six months after such data becomes available, a community shall notify FEMA of the changes by submitting technical data for a flood map revision. To obtain copies of FEMA's Flood Map Revision Application Packages, please refer to the FEMA website at http://www.fema.gov/business/nfip/forms.shtm.

Please Note:

Many NFIP participating communities have adopted floodplain management building requirements which are more restrictive than the minimum federal standards described in 44 CFR. Please contact the local community's floodplain manager for more information on local floodplain management building requirements. The San Luis Obispo County floodplain manager can be reached by calling Tim Tomlinson, Floodplain Manager, at (805) 781-5271.

If you have any questions or concerns, please do not hesitate to call Jane Hopkins of the Mitigation staff at (510) 627-7183.

Sincerely,

Gregor Blackburn, CFM, Branch Chief
Floodplain Management and Insurance Branch

cc:
Tim Tomlinson, Floodplain Manager, San Luis Obispo County
Garret Tam Sing/Salomon Miranda, State of California, Department of Water Resources, Southern District
Jane Hopkins, NFIP Planner, DHS/FEMA Region IX
Alessandro Amaglio, Environmental Officer, DHS/FEMA Region IX

Shawna Scott

From: Steve McGrath <stevem@portsanluis.com>
Sent: Sunday, March 16, 2014 12:30 PM
To: Shawna Scott; Brian Harrington; John Baucke ; Lisa Wise; Menka Sethi; Tim Duff (tduff@scc.ca.gov)
Subject: FW: AVAC Land Use Committee: Harbor Terrace

FYI

Steve McGrath
Harbor Manager
PSLHD

---------- Forwarded message ----------
From: **Sherri Danoff** <sherri39@charter.net>
Date: Sun, Mar 16, 2014 at 12:57 AM
Subject: AVAC Land Use Committee: Harbor Terrace
To: annemb@sbcglobal.net, Bob Pusanik <pusanik@charter.net>, Denise Allen <dchristyallen@gmail.com>, Jan Taylor <jktayloredd@yahoo.com>
Cc: runhartig@gmail.com, Saul Goldberg <slosaul@gmail.com>, Kdbitt@aol.com, mmatakovavila@gmail.com

On March 19, 2:00 p.m. is the EIR Scoping Meeting. This is the opportunity to express what should be evaluated in the EIR. AVAC's main issue is circulation safety.

The traffic study needs to include golf course event traffic, Diablo traffic, traffic during the Friday farmer's market, potential traffic for Avila Point and also Bellevue related traffic and pedestrians. Because the number of RV spaces will be substantially increased, a means of informing RV drivers when there are no spaces is important to prevent unnecessary RV trips beyond Ontario Road. Absence of a North-South emergency route becomes more significant with the addition of people and vehicles.

Note that evaluation of pedestrian crossings from the beach to Harbor Terrace could be important to AVAC for a somewhat convoluted reason. This is because should a 5 miles per hour speed reduction be warranted on Avila Beach Drive between the signal at First Street and the Harbor, it would legitimize SLBE street-legal golf carts using portion of that stretch to reach Avila Beach.

PLEASE, LET ME KNOW IF YOU CAN REPRESENT AVAC's ONGOING CIRCULATION SAFETY CONCERNS which are underlined above?

AVAC members can/should provide their personal inputs at the meeting. Too, hopefully AVAC concerns about accurate cumulative traffic information and discouraging RVs into Avila when spaces are not available

can also be provided. PLEASE, LET ME KNOW IF YOU CAN REPRESENT AVAC'S ESTABLISHED POSITIONS.

Thanks,

Sherri

RECEIVED APR 0 4 2014

CAL FIRE
San Luis Obispo
County Fire Department

635 N. Santa Rosa • San Luis Obispo, CA 93405
Phone: 805-543 -4244 • Fax: 805-543-4248
www.calfireslo.org

Robert Lewin, Fire Chief

Notice of Preparation Port San Luis Harbor Terrace Development Plan

SWCA Environmental Consultants
1422 Monterey Street Suite C200
San Luis Obispo, CA 93401

Rob Fitzroy Coastal team
San Luis Obispo County Department of Planning and Building

Project Summary

Port San Luis Harbor District and the state Coastal Conservancy propose to develop 32 acres proposing a mix of tent sites, tent cabins, bungalows, inn, yurts, and full service recreational RV camp sites; other related amenities food and beverage retail store, eating and drinking establishments, parking and storage to the Port.

The project is located within a HIGH fire hazard severity zone with a minimum 5-10 minute response time from the nearest County Fire Station. Station #62 on Sparrow Ln Avila Beach. The project and applicant shall comply with the 2013 California Fire Code (CFC), the 2013 California Building Code (CBC), and the Public Resources Code (PRC) any other applicable fire laws.

OPERATIONAL REQUIREMENTS

Special Concerns

This project will bring additional vehicle and visitor traffic to the end of a one way access road serving the community of Avila Beach. Numerous other attractions in Avila such as Diablo, Beach, Piers, Event Centers numerous hotels and commercial businesses routinely slow and/or stop vehicular traffic slowing emergency response vehicles into or out of the downtown area. Secondary egress must be coordinated with other development in the valley to mitigate this reduction in emergency response time and evacuation time for residents and visitors. The cumulative effects of large scale special events, increased commercial operations on a one way access road to the community of Avila Beach will further challenge CAL FIRE/County Fire's ability to provide emergency services to visitors and residents.

Public Assemblage and Events

Prior to Fire Department Review, proposed event area must first complete all requirements pursuant to Title 22, the San Luis Obispo County Land Use Ordinance. This includes receiving any necessary land use permit approval and issuance of construction and Conditional Use Permit requirements.

A fire safety review is required to ensure public safety in a place of assembly, or any other place where people congregate, including but not limited to; amusement buildings, carnivals and fairs, exhibits and trade shows, open burning, flames and torches, candles, places of assembly, temporary membranes structures and tents, pyrotechnics and special effects, live audiences and any event with public attendance over 250. The fire code official shall have the authority to order the development of, or prescribe a plan for, the provision of an approved level of public safety.

A written plan must be submitted to the fire code official 30 days prior to the event. Written submittal requirements will be in accordance with Section 404 Fire Safety and evacuation plans. A field inspection verifying compliance of fire and life safety conditions must be conducted prior to public occupancy of the event. If modifications or additions to the event areas are made, an updated permit & inspection must be completed. Local Ordinance and California Fire Code (CFC) section 105.

Any time a tent, canopy or membrane structure in excess of 400 square feet is erected; it must be placed and utilized in accordance with California Fire Code – Chapter 24. The applicant shall be required to notify County Fire a minimum of 48-hours in advance of any tent or membrane structure being placed on site. Submittal requirements can be found on line at www.calfireslo.org

Fire Safety and Evacuation Plans
Applicant shall provide a written Fire Safety plan whose contents shall be in accordance with sections California Fire Code Chapter 4 Emergency Planning and Preparedness. Employee training, record keeping, hazard communication and drills will also comply with this chapter. The written plan will include at a minimum the detail outlined in sections 404.3.1 (Evacuations Plans) and 404.3.2 (Fire Safety Plans).

Fire evacuation plans. Fire evacuation plans shall include the following:
1. Emergency egress or escape routes and whether evacuation of the building is to be complete or, where approved, by selected floors or areas only.
2. Procedures for employees who must remain to operate critical equipment before evacuating.
3. Procedures for assisted rescue for persons unable to use the general means of egress unassisted.
4. Procedures for accounting for employees and occupants after evacuation has been completed.
5. Identification and assignment of personnel responsible for rescue or emergency medical aid.
6. The preferred and any alternative means of notifying occupants of a fire or emergency.
7. The preferred and any alternative means of reporting fires and other emergencies to the fire department or designated emergency response organization.
8. Identification and assignment of personnel who can be contacted for further information or explanation of duties under the plan.
9. A description of the emergency voice/alarm communication system alert tone and preprogrammed voice messages, where provided.

Fire safety plans. Fire safety plans shall include the following:
1. The procedure for reporting a fire or other emergency.
2. The life safety strategy and procedures for notifying, relocating or evacuating occupants/event attendees, including occupants who need assistance.

Ignition Resistant Construction
Your project is located within a wildland fire hazard severity zone and must comply with California Fire and Building Code Chapter 7A Ignition resistant Construction in Wildland Urban Interface areas. The construction type shall be designed to withstand a wildfire. The roof type will have to be consistent with the requirements of Chapter 15 - Section 1505. Tents and any membrane structures proposed as permanent structures are not permitted in commercial operations.

Stairway Access to Roof
New buildings two or more stories above grade plane, except those with a roof slope greater than four units vertical in 12 units horizontal (33.3-percent slope), shall be provided with a stairway to the roof or other access to the roof for emergency personnel approved by the fire code official. Stairway access to the roof shall be in accordance with Section 1009. Such stairway or other approved access shall be marked at street and floor levels with a sign indicating that the stairway or access continues to the roof. Where roofs are used for roof gardens or for other purposes, stairways shall be provided as required for such occupancy classification.

Building Height and Area
Class III standpipe systems shall be installed throughout buildings where the floor level of the highest story is located more than 30 feet (9144 mm) above the lowest level of the fire department vehicle access, or where the floor level of the lowest story is located more than 30 feet (9144 mm) below the highest level of fire department vehicle access and in any parking structure.

A building that is greater than 20,000 square feet (1.858 m2) of floor area and greater than18 feet (5.49 m) in height shall have a dry or wet standpipe system with a 2 ½ inch (64 mm) outlet at the roof near the roof access. Location of the outlet and the fire department connection to the standpipe shall be labeled and approved by the fire code official.

Address Requirements
New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Where required by the fire code official, address numbers shall be approved in additional approved locations to facilitate emergency response. Address numbers shall be Arabic numerals or alphabet letters. Numbers shall be a minimum of Commercial 8 inches, and Industrial 10 inches high with a minimum stroke width of 0.5 inch (12.7mm).
Address Directories
When required by the fire code official, complexes with multiple buildings (campgrounds and hiking trails) may be required to provide directories, premises maps and directional signs. The scale, design and location of directory signs shall be approved by the fire code official and may be required to be illuminated.

Solar Photovoltaic systems
Solar systems shall be installed in accordance with sections 605.11.1-605.11.4. Marking is required on interior and exterior Direct Current (DC) conduit, enclosures, raceways, cable assemblies, junction boxes, combiner boxes and disconnects.

3. Site plans indicating the following:
3.1. The occupancy assembly point.
3.2. The locations of fire hydrants.
3.3. The normal routes of fire department vehicle access.
4. Floor plans identifying the locations of the following:
4.1. Exits.
4.2. Primary evacuation routes.
4.3. Secondary evacuation routes.
4.4. Accessible egress routes.
4.5. Areas of refuge.
4.6. Exterior areas for assisted rescue.
4.7. Manual fire alarm boxes.
4.8. Portable fire extinguishers.
4.9. Occupant-use hose stations.
4.10. Fire alarm annunciators and controls.
5. A list of major fire hazards associated with the normal use and occupancy of the premises, including maintenance and housekeeping procedures.
6. Identification and assignment of personnel responsible for maintenance of systems and equipment installed to prevent or control fires.
7. Identification and assignment of personnel responsible for maintenance, housekeeping and controlling fuel hazard sources.

Building Construction requirements and Vegetation Management
Vegetation Management
A written Wildland Fire/Vegetation Management Plan must be developed and approved by CAL FIRE prior to development.

Screening and Environmental Considerations
Landscaping and vegetation shall be in accordance with San Luis Obispo County Planning and building "screening requirements". CAL FIRE requires that landscaping selections do not readily transmit fire.

Fire resistant landscaping located within 100 feet of site improvements (structures or fire water tanks) shall be in accordance with CFC, Pubic resources code 4291 and Title 19 Division 1 described as "vegetation that are well-pruned and maintained so as to effectively manage fuels and not form a means of rapidly transmitting fire from other nearby vegetation to a structure or from a structure to other nearby vegetation. The intensity of fuels management may vary within the 100-foot perimeter of the structure, the most intense being within the first 30 feet around the structure. Consistent with fuels management objectives, steps should be taken to minimize erosion. For the purposes of this paragraph, "fuel" means any combustible material, including petroleum-based products and wildland fuels. www.calfireslo.org website has several links with recommended planning tools for landscape and fuels management plans.

Solar components shall be located as close to the hip, ridge, or valley or directly possible to an outside wall to reduce trip hazards and maximize ventilation opportunities.

Roof access points shall be located in areas that do not require the placement of ground ladders over openings such as windows, doors and must be located over strong points where access point does not conflict with overhead obstacles such as trees wires or signs.

There shall be a six (6) foot wide clear perimeter around the edges of the roof unless either axis of the building is 250 feet then 4 (4) foot clear perimeter is permitted. Smoke ventilation operations requires distance between arrays shall be eight foot or greater in width OR a four foot or greater pathway and bordering roof skylights, or smoke and heat vents OR a four (4) foot or greater and a bordering four foot by eight (8) foot "venting cutouts" every 20 feet on alternating sides of the pathway.

Secondary egress
In accordance with CFC Section 503.1.2, County Fire is requiring the applicant to provide an additional (secondary) access point.

Pedestrian hiking paths and gates must provide strategically located emergency vehicle access. (Removable bollards and Knox switches to restrict routine vehicle traffic is acceptable) Additionally, hiking paths must post mile markers; post the names of trail intersections, parking areas, picnic and rest areas, to ensure timely location and access of requests for emergency assistance.

Commercial Access Road(s)
Grade and Design
The grade for all roads, streets, private lands and driveways shall not exceed 16 percent unless approved by fire code official. Design criteria shall be in accordance with San Luis Obispo County Public Works public improvement standards. Roads 12%-16% shall be a nonskid asphalt or concrete surface as specified in San Luis Obispo County public improvement Standards, specifications and drawings.

Road Width and Signage
- A commercial access road must be 24 feet wide.
- Parking is only allowed where an additional 8 feet of width is added for each side of the road that has parking.
- "No Parking - Fire Lane" signs will be required.
- Fire lanes shall be provided as set forth in the California Fire Code Section 503.
- Fire access shall be provided within 150 feet of the outside building(s) perimeter.
- Must be an all-weather non-skid paved surface.
- All roads must be able to support fire apparatus.
- Vertical clearance of 13'6" is required.
- Fuel modification of 10 feet on either side of roadway must be maintained.
- An approved traffic plan shall be provided to the fire code official.
- Interior commercial roads shall be named and provided with approved street signs.

- One way interior roads shall be labeled indicating direction of travel.

Emergency Access Knox Keys and/or Gate Switches

Structural Access Requirements
All commercial buildings shall install a Knox key box for fire department emergency access – CFC Section 506.1. The box shall be installed prior to final inspection of the building. An order form is available from the Prevention Bureau, call for more information at (805) 543-4244.

Gate Access Requirements
- Must be setback a minimum of 30 feet from the SLO County maintained road
- Must automatically open with no special knowledge.
- Must have a KNOX key box or switch for fire department access. Call the Prevention Bureau for an order form at (805) 543-4244.
- Gate shall have an approved means of emergency operation at all times. CFC 503.6
- Gate must be 2 feet wider than the road on each side.
    - Gates must have a turnaround located at each gate.

Exiting:
All egress and exiting components shall comply with Chapter 10 of the 2013 California Fire Code.

Setbacks
A 30-foot building setback from property line required for parcels 1 acre in size or larger. All setbacks are subject to San Luis Obispo County Department of Planning and Building approval.

Fire Sprinklers in Structures
This project will require installing a commercial fire sprinkler system in all new buildings. The type of sprinklers required will depend upon the occupancy classification type of the structures and must comply with NFPA 13. The automatic fire extinguishing system shall comply with the National Fire Protection Association (NFPA) 13. The applicant will have to identify what Hazard Class the project is for review by the fire department (exp. Ordinary Hazard Class II), for each of the buildings in the project. Three sets of plans and calculations shall be submitted for functional review and approval to the County Fire Department. The contractor shall be licensed by the State of California, CFC. A licensed alarm company shall monitor the fire sprinkler and alarm system.

The automatic fire extinguishing system shall comply with the National Fire Protection Association (NFPA) 13, or other approved NFPA Standard depending on target hazard. (Clean agent or alternative option)

Sprinkler System Supervision and Alarms
All valves controlling the water supply for automatic sprinkler systems, pumps, tanks, water levels, and temperatures, critical air pressures and water-flow switches on all sprinkler systems shall be electrically monitored for integrity and to ensure valves are locked in the open position, by a central station listed by Underwriters Laboratories for receiving fire alarms.

Fire Protection Engineer required
A Fire Protection Engineer shall review the proposed Fire Protection Systems for this project. Multiple fire protection and hazardous conditions systems are required for this project. A list of Fire Protection Engineers is available on our website at http://www.calfireslo.org.

Three sets of plans and calculations shall be submitted for functional review and approval to the County Fire Department. A licensed Fire Protection Engineer must design and submit all required drawings for CAL FIRE review. The contractor shall be licensed by the State of California, California Fire Code. A licensed alarm company shall monitor all fire protection and hazardous conditions systems.

Private Water System Requirements
Commercial fire suppression system water storage tanks must be steel and located a minimum of 20 feet from structures. NFPA Standard 22 Water tanks for private Fire Protection, NFPA Standard 24 Installation of Private Fire Service mains and their Appurtenances, NFPA Standard 25 Inspection, Testing and Maintenance of Water-Based Fire Protection Systems shall be utilized for this project.

The amount of emergency water required for fire suppression will be determined and approved by a registered licensed Fire Protection Engineer in cooperation with CAL FIRE/County Fire. Water required to be held in storage for domestic and/or landscaping purposes will be in addition to or separate from that required for fire suppression.

PRESSURIZED System and Hydrant Specifications
Plans shall be submitted to the County Fire Department for approval of the distribution system and hydrant locations. Fire hydrants shall have two, 2 ½ inch outlets with National Standard Fire threads and one 4 inch suction outlet with National Standard Fire threads and comply with County Standard W-1. Each hydrant shall be identified by a blue reflective dot located on a non-skid surface located just off of center on the fire hydrant side. Hydrants must be protected from vehicle impact with the use of curbing or bollards.

The fire department connections (FDC) supporting the required fire protection systems shall be located within 20 feet of a San Luis Obispo County Dept. of Public Works/County Fire standard fire hydrant and visible on fire engine approach to the building.

NFPA 72 Alarm systems
A centralized interlinked Fire Alarm System is required for this project. The alarm system shall terminate at a 24-hour monitoring point. Two sets of plans shall be submitted to CAL FIRE/San Luis Obispo County Fire for review and approval. California Fire Code Chapter 15 section 907. Fire alarm systems required by this chapter or by the California Building Code shall be monitored by an approved supervising station listed by Underwriters Laboratory for receiving fire alarms in

accordance with NFPA 72. The supervising station shall contact and notify the Fire Chief or their call receiving location immediately on notification of an alarm and prior to making contact with the protected premises.

Alarm system must be centralized and interlinked for the entire facility and include monitoring for all site alarm systems including; all on site Fire Protection Systems, and any and all hazardous materials, monitoring of hazardous materials, compressed gases, flammable and combustible liquids, liquefied petroleum gases, storage, delivery and processing areas.

A Fire Alarm System is required throughout the site for the various fire suppression systems and required hazardous conditions monitoring. The alarm system shall terminate at a 24-hour monitoring point. Two sets of plans shall be submitted to the County Fire Department for review and approval. California Fire Code Chapter 15 section 907.

Hazardous Materials Alarm(s)
Approved monitoring method shall be provided to detect hazardous materials. An emergency alarm shall be provided if hazardous materials have a hazard ranking of 3 or 4 in accordance with NFPA 704 and exceed the maximum allowable quantity per control area. California Fire Code Chapter 27

Commercial Cooking Operations
California Fire Code Section 904.11 states Commercial cooking equipment that produces grease laden vapors shall be provided with a Type I Hood, in accordance with the California Mechanical Code, and an automatic fire extinguishing system that is listed and labeled for its intended use as follows:

1) Wet chemical extinguishing system, complying with UL 300.
2) Carbon Dioxide extinguishing systems
3) Automatic Fire Sprinkler Systems

Hazardous Materials
Prior to final, a Hazardous Materials Management Plan (HMMP) must be provided. Chemical storage/treatment and hazardous gases will require a Hazardous Materials Management Plan HMMP. In accordance with California Fire Code section 2701.5.1/Title 19 Division 2, Chapter 4/Health and Safety Code Chapter 6.95.

CAL FIRE requires a written plan addressing safeguards to minimize the risk of unwanted releases, fires or explosions involving hazardous materials. Additionally, the written plan shall include safeguards to minimize the consequences of an unsafe condition involving hazardous materials during normal operations and in the event of an abnormal condition.

Precautions for the safe storage, handling, or care of hazardous materials shall be in accordance with California Fire Code section 2703.9 and shall include a Fire Department liaison to aid the Fire Department in pre-planning for all aspects of emergency responses.

Rooms, buildings or areas used for the storage of liquid or solid hazardous materials shall be provided with spill control and secondary containment. California Fire Code Chapter 27.

California Fire Code Chapter 30 Compressed Gasses
Containers, cylinders and tanks shall be secured and separated from hazardous conditions. Monitoring and detection shall be in accordance with section 3003.16.10.

California Fire Code Chapter 34 Flammable and Combustible Liquids
Signage for identification and warning inherent hazard of flammable or combustible liquid shall be provided. Signs will be of durable material white lettering on a red background. Letters shall not be less than 3 inches in height and ½ inch in stroke. Piping shall be identified in accordance with ASME A13.1

Permanently installed or mounted tanks more than 100 gallons in capacity storing class I, II or III liquids shall bear a label and placard identifying the materials. Placards shall be in accordance with NFPA 704.

California Fire Code Chapter 38 Liquefied Petroleum Gases
Minimum separation between LP-containers and buildings and public ways must comply with CFC table 3804.3. No Smoking signs must be posted within 25 feet of containers or point of transfer. Weeds, grass and brush, trash and other combustible material shall be kept a minimum of 10 feet from containers. Protection from vehicular damage shall be provided in accordance with section 312.

General Fire Precautions and Signage
Portable Fire Extinguishers
Portable fire extinguishers shall be installed in all the occupancies in compliance with the California Fire Code section 906 and Title 19. The contractor shall be licensed by the State Fire Marshal.

Combustible Waste Material
Every building or portion of a building shall be maintained in a neat orderly manner, free from any condition that would create a fire or life hazard or a condition which would add to or contribute to the rapid spread of fire.
CCR Title 19 Division 1.

Refuse containers must not be stored within 5 feet of combustible walls, openings, or combustible roof eaves, unless the refuse container is protected by an automatic sprinkler system installed in accordance with California Fire Code section 903.

Petroleum Tanks
Fire Protection systems and safety precautions requirements shall be required in accordance with California Fire Code Chapter 34 Flammable and Combustible Liquids. Foam protection system shall be provided for above ground tanks California Fire Code section 34.04.2.9.1 in accordance

with NFPA Standard 11 Low expansion foam and combined agent systems, and NFPA Standard 15 Water Spray Fixed Systems NFPA Standard 30 Flammable and Combustible Liquids Code.

Storage, Stockpiles and Enclosures
Areas must meet all applicable California Fire Code requirements and be labeled with NFPA 704 required placarding.

Electrical
Electrical wiring and equipment shall be installed and maintained in accordance with California Fire Code section 605 and the California Electrical Code. Hazards and fire prevention concerns relational to Electrical equipment, wiring shall be abated as specified in the aforementioned Fire Code.

Fire Safety during Construction
Prior to construction, an operational water supply system and established access roads must be installed in accordance with CFC Section 501.4. During construction all applicable Public Resources Codes must be complied with to prevent a wildfire. These will include the use of spark arresters, adequate clearance around welding operations, smoking restrictions and having extinguishers on site. The Industrial Operations Fire Prevention Field Guide will assist the applicant.

Please contact me if you have any questions regarding this project.
Sincerely,

Laurie Donnelly
Fire Marshal/Battalion Chief

Cc: Port San Luis Harbor District
State Coastal Conservancy

Shawna Scott

From: anix@co.slo.ca.us
Sent: Monday, April 07, 2014 5:10 PM
To: Shawna Scott
Subject: RE: San Luis Obispo Sheriff's Office response letter to the Port San Luis Harbor Terrace Development Plan EIR

It was my pleasure. I should have pointed out in my original email that I am the Commander for the Coast Patrol Division, which includes Port San Luis and Avila Beach. As this project moves along please let me know if I can be of any assistance, as it appears to be a very positive development for that community.

Regards,

Aaron Nix
Commander
Coast Patrol Division
San Luis Obispo County Sheriff's Office
2099 10th Street
Los Osos, CA 93402
(805) 781-4630

From: Shawna Scott <sscott@swca.com>
To: "anix@co.slo.ca.us" <anix@co.slo.ca.us>
Date: 04/07/2014 04:51 PM
Subject: RE: San Luis Obispo Sheriff's Office response letter to the Port San Luis Harbor Terrace Development Plan EIR

Thank you, Aaron.

_____

Shawna Scott
Planning Team Leader
SWCA Environmental Consultants
1422 Monterey Street Suite C200
San Luis Obispo, CA 93401
P 805.543.7095 x 6811 | C 805.748.3498

Visit Our Website: http://www.swca.com

From: anix@co.slo.ca.us [mailto:anix@co.slo.ca.us]
Sent: Monday, April 07, 2014 4:29 PM
To: Shawna Scott
Subject: San Luis Obispo Sheriff's Office response letter to the Port San Luis Harbor Terrace Development Plan EIR

Ms. Scott,

Attached please find the Sheriff's Office response letter to the Port San Luis Harbor Terrace Development Plan EIR. Please let me know if you would like any additional support documentation and I will provide it immediately.

Thank you, and please do not hesitate to call me with any questions.

Aaron Nix
Commander
Coast Patrol Division
San Luis Obispo County Sheriff's Office
2099 10th Street
Los Osos, CA 93402
(805) 781-4630

[Scanned @co.slo.ca.us]

[Scanned @co.slo.ca.us]

Ian Parkinson
Sheriff-Coroner
1585 Kansas Avenue
San Luis Obispo, CA 93405

©2011 SAN LUIS OBISPO SHERIFF'S OFFICE

April 4, 2014

TO: Port San Luis Harbor District
Shawna Scott, Project Manager
SWCA Environmental Consultants
1422 Monterey Street, C200
San Luis Obispo, CA 93401

FROM: San Luis Obispo County Sheriff's Office
1585 Kansas Avenue
San Luis Obispo, California 93405

CONTACT: Chief Deputy Rob Reid
rreid@co.slo.ca.us 805-781-4540

RE: Port San Luis Harbor Terrace Development Plan

PATROL AREA: Coast
COMMUNITY: Avila Beach/Port San Luis Harbor Areas

Law enforcement needs for the unincorporated area of San Luis Obispo County are served by the Sheriff's Office. San Luis Obispo County encompasses 3615 Sq. miles of which sixty-six miles are incorporated (City) and served by police departments.

The Coast Patrol Station, which is responsible for the area of the project, is located at 2099 10th Street in Los Osos, serving an area of 900 square miles. The Coast Station personnel provide service to San Simeon/Hearst Castle area, Cambria, Harmony, Cayucos, Los Osos/Baywood Park, rural San Luis Obispo, and Avila Beach/Port San Luis. Current average response times generally range from 12 to 49 minutes with longer response times to the more rural outlying areas of the service jurisdiction.

The California Highway Patrol (CHP) is primarily responsible for traffic-related calls along highways and streets in the unincorporated areas of the County. Unlike the Sheriff's Office, they will not investigate, take action, or respond to crimes in progress in residential, commercial, or industrial areas. They may respond upon request as back-up to the Sheriff's Office response, if available; however, the CHP does not normally provide police protection services. Their primary role is traffic enforcement.

Emergency response times for the Coast Station are dependent on where the patrol vehicles are in relation to a call, as well as the nature of the calls. Currently, the Sheriff's Office is understaffed, and with the cumulative impact of approved development and an increase in public access, response times most likely will increase. In other words; the project area does pose an impact on Sheriff's Office patrol and related resources.

As San Luis Obispo County grows, the Sheriff's Office must anticipate public safety needs. Funds required for operating and staffing expenses for the Sheriff's Office are derived from the General Fund, and is a budgetary matter to be determined by the Board of Supervisors on an annual basis. The Sheriff's Office, like other County services, i.e., fire and engineering, must petition funding for new personnel positions. Each project creates a law enforcement impact that should be addressed upon approval.

Any enterprise has the potential to generate the need for public safety response, and therefore impact Sheriff's Office resources. Because of the on-going budgetary issues, and the ratio of deputy to population, a beneficial approach to any new/improved project, would be to incorporate the principles and practices of "Crime Prevention Through Environmental Design" (CPTED) while in the planning stages of the project.

<u>The following suggestions incorporate CPTED practices</u>:

- After hour's access points to the project areas should be protected with adequate security, however, admission is also necessary for emergency personnel, therefore, combinations to locks/lockboxes should be provided to Sheriff's Office Dispatch.
- Visible signage with hours of operation and any type of regulations should be strategically placed throughout the park/recreation areas and properly maintained.
- Proper illumination is paramount inside structures, exterior doors, designated parking areas, entry and walkways. Not only is adequate lighting essential to deter property crime, but it is also vital for personal safety. Lights should be on timers, and a manual override is recommended in case of a greater need for light. Adequate exterior / interior lighting is a great deterrent to a would-be assailant, vandal or burglar.
- Key control for employees is essential, with accurate information indicating who has access to which areas of any structures or access points.

During the Construction/Implementation Phase of the Project:

- The construction site(s) should be temporarily fenced off, with signage indicating that the area is off limits to the general public.
- All construction equipment should be secured at the site after hours, with a complete recorded inventory kept on file.
- Adequate lighting of the construction area should be implemented.

Regarding the Design of the Project:

- Special care should be taken to avoid creating "hiding places" in alcoves or entry areas.
- A clear view of the exterior of any structures from the interior, and vice versa, would create an opportunity for several sets of eyes to observe any suspicious activity in either area.
- Sufficient lighting should be installed on the exterior and interior of any structures.
- All exterior doors should meet all safety requirements, should be solid core, and have adequate locks.

At such time as development occurs on this project, the builders are encouraged to contact the Sheriff's Department Crime Prevention Unit at (805) 781-4483, for assistance and to learn additional strategies that will make them less likely to be a target of criminal activity.

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SLO COUNTY apcd | Air Pollution Control District
San Luis Obispo County

April 7, 2014

Port San Luis Harbor District
c/o Shawna Scott, Project Manager
1422 Monterey St, C200
San Luis Obispo, CA 93401

SUBJECT: APCD Comments Regarding the Notice of Preparation (NOP) for a Draft Environmental Impact Report (EIR) addressing the preparation of the Port San Luis Harbor District Terrace project

Dear Ms. Scott,

Thank you for including the San Luis Obispo (SLO) County Air Pollution Control District (APCD) in the environmental review process. We have completed our review of the Notice of Preparation (NOP) for a Draft Environmental Impact Report (EIR) addressing the preparation of the Port San Luis Harbor District Terrace project.

The project is a proposal by the Port San Luis Harbor District (District) and the State Coastal Conservancy (Conservancy) for a Development Plan (Plan) for the Harbor Terrace Site. The Plan is currently being developed. Initiation of the initial study at this juncture is to help determine the scope and contents of the environmental document, allow the environmental review and scoping process to inform the Plan and alternatives development and maximize opportunities for self-mitigation and alternatives analysis. The level of specificity of the project description and evaluation is commensurate with the level of project detail available at the time the initial study was prepared.

Harbor Terrace is an approximately 32-acre portion of the District's landholding's associated with Port San Luis (Port). The project shall comply with the San Luis Bay Coastal Area Plan Local Coastal Plan (LCP) so as not to require an amendment to the LCP. In compliance with the LCP, the project program will include a mix of tent sites, tent cabins, bungalows, inns or yurts, full service recreational vehicle (RV) camp sites and other related amenities such as a food and beverage retail store and/or an eating and drinking establishment, parking and storage facilities to serve the Port. The project will improve upon existing circulation, re-vegetate portions of the site with native habitat and employ engineering solutions that meet or exceed new County of San Luis Obispo (County) and Regional Water Quality Board (RWQCB) storm water regulations. More detail will become

T 805.781.5912 F 805.781.1002 W slocleanair.org 3433 Roberto Court, San Luis Obispo, CA 93401

available as the project develops. The EIR will contain a full evaluation of the project's consistency with applicable plans and policies.

The following are APCD comments that are pertinent to this project.

APCD Contact Person:

Gary Arcemont
Air Pollution Control District
3433 Roberto Court
San Luis Obispo, CA 93401
(805) 781-5912

1. Permit(s) or Approval(s) Authority:

   Permits for Equipment

   Based on the information provided, the APCD is unsure of the types of equipment that may be used as part of this project. Portable equipment may require statewide registration or an APCD permit. Additionally, future developments may require APCD permits and/or applicants may need to apply for an Authority to Construct. Please contact our Engineering Division at (805) 781-5912 for more information on APCD permits. The following list is provided as a guide to equipment and operations that may have permitting requirements, but should not be viewed as exclusive. For a more detailed listing, refer to the APCD's 2012 CEQA Handbook.
   - Portable generators and equipment with engines that are 50 hp or greater; and
   - Internal combustion engines.

   To minimize potential delays, prior to the start of the project, please contact the APCD Engineering Division at (805) 781-5912 for specific information regarding permitting requirements.

2. Environmental Information:

   The potential air quality impacts should be assessed in the Environmental Impact Report (EIR). This analysis should address both short-term and long-term emissions impacts (including traditional air pollutants and greenhouse gas emissions) and include the following information:

a) A description of existing air quality and emissions in the impact area, including the attainment status of SLO County relative to State and Federal air quality standards and any existing regulatory restrictions to development. The most recent Clean Air Plan should be consulted for applicable information.

b) A complete emission analysis should be performed on all relevant emission sources, using emission factors from the EPA document AP-42 "Compilation of Air Pollutant Emission Factors", the latest approved version of CalEEMod, EMFAC, OFF-ROAD or other approved emission calculator tools. Documentation of emission factors and all assumptions (i.e. construction

impacts, operational impacts, vehicle trip length, vehicle and equipment emission factors, etc.) should be provided in an appendix to the EIR. The quantitative analysis should address criteria pollutants, greenhouse gases, toxics, diesel particulate matter and fugitive dust. The analysis should also address the removal of trees and native vegetation and impacts to existing carbon sequestration.

c) The EIR should include a range of feasible alternatives to the proposed project that could effectively minimize air quality impacts. A thorough emissions analysis should be conducted for each of the proposed alternatives identified. The EIR author should contact the SLO County APCD if additional information and guidance is required. All calculations and assumptions used should be fully documented in an appendix to the EIR.

d) Assembly Bill 32, the California Global Warming Solution Act of 2006 and California Governor Schwarzenegger Executive Order S-3-05 (June 1, 2005), both require reductions of greenhouse gases (GHG) in the State of California. The Governor has recognized mitigation efforts will be necessary to reduce greenhouse gas emissions. In order to address these issues, greenhouse gas emissions should be evaluated in the EIR, and appropriate mitigation efforts identified.

e) A cumulative impact analysis should be performed to evaluate the combined air quality impacts of this project and impacts from existing and proposed future projects in the area.

f) The data analyses should address local and regional impacts with respect to maintaining applicable air quality standards.

g) Any temporary impacts, such as fugitive dust and combustion emissions from the use of heavy equipment and grading activities, should be quantified and mitigation measures proposed.

h) Mitigation measures to reduce or avoid significant air quality impacts should be recommended. The EIR should address any proposed mitigation measures and describe feasible mitigation measures to reduce air quality impacts.

i) Naturally occurring asbestos (NOA) has been identified by the state Air Resources Board as a toxic air contaminant. Serpentine and ultramafic rocks are very common throughout California and may contain naturally occurring asbestos. The SLO County APCD has identified areas throughout the County where NOA may be present (see the APCD's 2012 CEQA Handbook, Technical Appendix 4.4). The project referral indicated that there will be ground disturbance. The project site is located in a candidate area for Naturally Occurring Asbestos (NOA), therefore the following requirements apply. Under the ARB Air Toxics Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations, **prior to any ground disturbance activities, the project proponent shall ensure that a geologic evaluation is conducted to determine if NOA is present within the area that will be disturbed. If NOA is not present, an exemption request must be filed with the APCD.** If NOA is found at the site the applicant must comply with all requirements outlined in the Asbestos ATCM. This may include development of an Asbestos Dust Mitigation Plan and an Asbestos Health and Safety Program for approval by the APCD. If NOA is not present, an exemption request must be filed

with the Air District. More information on NOA can be found at http://www.slocleanair.org/business/asbestos.php.

j) Demolition activities can have potential negative air quality impacts, including issues surrounding proper handling, demolition, and disposal of asbestos containing material (ACM). Asbestos containing materials could be encountered during demolition or remodeling of existing buildings. Asbestos can also be found in utility pipes/pipelines (pipes or insulation). **If building(s) are removed or renovated; or utility pipelines are scheduled for removal or relocation, this project may be subject to various regulatory jurisdictions, including the requirements stipulated in the National Emission Standard for Hazardous Air Pollutants (40CFR61, Subpart M - asbestos NESHAP).** These requirements include, but are not limited to: 1) notification requirements to the APCD, 2) asbestos survey conducted by a Certified Asbestos Inspector, and, 3) applicable removal and disposal requirements of identified ACM. Please contact the APCD Enforcement Division at (805) 781-5912 for further information.

3. Permit Stipulations/Conditions:

   It is recommended that you refer to the "2012 CEQA Air Quality Handbook" (the Handbook). If you do not have a copy, it can be accessed on the APCD web page (www.slocleanair.org) in the Business Assistance section, listed under Regulations, or a hardcopy can be requested by contacting the APCD. The Handbook provides information on mitigating emissions, which should be discussed in the Draft EIR.

4. Alternatives:

   Any alternatives described in the Draft EIR should involve the same level of air quality analysis as described in section 2 above.

5. Reasonably Foreseeable Projects, Programs, or Plans:

   The 2012 version of the APCD's CEQA Air Quality Handbook provides guidance for preparing the EIR.

6. Relevant Information:

   The 2012 version of the APCD's CEQA Air Quality Handbook should be referenced in the EIR for determining the significance of impacts and level of mitigation recommended.

7. Further Comments:

Construction and Operational Phase Impacts

Estimate the construction and operational phase impacts of this project in the EIR. The air quality assessment should include all associated construction activities and pollutants identified in the 2012 version of the APCD's CEQA Air Quality Handbook.

Sensitive Receptors

Page 11 of the project referral indicates "The project will result in the disturbance across much of the 32-acre property. This will result in the creation of construction dust and diesel particulate emissions..." The EIR should include an evaluation of the project air quality impact on any nearby sensitive receptors and the impacts of diesel trucks routed in the vicinity of sensitive receptors. See the APCD 2012 CEQA Handbook for guidance.

San Luis Obispo Car Free Program

Vehicle emissions are often the largest source of emissions from the operational phase of development. This project has the potential to increase the amount of vehicle trips to our County and appropriate mitigation measures must be considered. San Luis Obispo (SLO) Car Free is a program to encourage car-free transportation to and around San Luis Obispo County. SLO Car Free provides tools to travelers on the pleasures and availability of traveling to our area without their cars, or by parking their cars once they arrive. By pledging to travel to, or around SLO County without a car, visitors receive special incentives from participating hotels, restaurants, transportation services and attractions. In addition, businesses who join SLO Car Free as a participating business receive free advertisement on their website, highlighting the businesses efforts to encourage "green" tourism to San Luis Obispo County. The facility may be promoted through several social media networks and at the numerous events that SLO Car Free participates in each year.

The SLO Car Free website (SLOCarFree.org) is a hub for information and web-links on transportation, lodging, attractions and other visitor needs. Visitors can use the website to find out what they can do in SLO County and how they can do it without a car. **To mitigate the potential vehicle trips to the proposed facility, the APCD recommends participation in the SLO Car Free Program. To get signed up for SLO Car Free, please contact Meghan Field in the APCD Planning Division at 805-781-5912.**

Thank you for the opportunity to comment on this proposal. If you have any questions or comments, feel free to contact me at 781-5912.

Sincerely,

Gary Arcemont
Air Quality Specialist

GJA/arr

cc: Tim Fuhs, Enforcement Division, APCD
Karen Brooks, Enforcement Division, APCD
Gary Willey, Engineering Division, APCD
Rob Fitzroy, SLO County Dept. of Planning and Building

Attachments: Naturally Occurring Asbestos – Construction & Grading Project Exemption Request Form, Construction & Grading Project Form

SAN LUIS OBISPO COUNTY

DEPARTMENT OF PLANNING AND BUILDING

Promoting the Wise Use of Land - Helping to Build Great Communities

April 7, 2014

Port San Luis Harbor District
c/o Shawna Scott, Project Manager
1422 Monterey St, C200
San Luis Obispo, CA 93401

Subject: Notice of Preparation (NOP) for the Draft Environmental Impact Report for the Port San Luis Harbor District Terrace project

Ms. Scott,

Thank you for including the Department of Planning and Building in the environmental review process. We have completed our review of the Notice of Preparation (NOP) for the Draft Environmental Impact Report (EIR) for the Port San Luis Harbor District Terrace project and offer the following comments.

1. Contact Person: Rob Fitzroy, 805-781-5179, rfitzroy@co.slo.ca.us
2. The County is responsible for issuance of the Coastal Development Permit (CDP) necessary for the project.
3. Please evaluate all applicable coastal development policies as identified in the Coastal Zone Land Use Ordinance and the San Luis Bay Area Plan - Coastal. These two documents are available on the County's website at sloplanning.org.
4. Please evaluate visual impacts relative to the Coastal Zone Land Use Ordinance and applicable policies and provide visual simulations as necessary.
5. The cumulative impact analysis should include major projects that may be approved in the foreseeable future as listed in the San Luis Bay Estates Master Plan. Please contact the County for the most up-to-date list.

The Department looks forward to reviewing and commenting on the EIR.

Thank you,

Rob Fitzroy
SLO County Planning & Building Department
(805)781-5179
rfitzroy@co.slo.ca.us
www.sloplanning.org

APPENDIX B.
2003 PORT MASTER PLAN FINAL EIR
MITIGATION MEASURES

2. Summary

To aid the public and decision-makers in understanding the findings of an EIR, Section 15123 of the CEQA Guidelines requires that a summary be provided which discusses the significant environmental effects and mitigation measures; areas of controversy, and issues to be resolved (if any). This may include making a choice among alternatives and/or whether or how to mitigate the significant effects.

The summary that follows is divided into two parts. The first provides a brief synopsis of the project and any areas of controversy known to the lead agency (Port San Luis Harbor District). The second identifies the environmental impacts associated with implementation of the project and cumulative development.

Project Synopsis

Project Proponent

Port San Luis Harbor District
Pier No. 3, Avila Beach Drive
PO Box 249
Avila Beach, CA
Contact: Jay Elder, Harbor Manager
(805) 595-5400

Project Description

The project evaluated by this FEIR is a comprehensive update of the Port San Luis Harbor District Master Plan ("Final Master Plan") which is incorporated herein by reference and is available for public review at the Harbor District offices located at the base of Harford Pier at the end of Avila Beach Road and on the following web site: www.portsanluis.com.

Location

The majority of Harbor District facilities are located in central San Luis Obispo County about 1 miles west of the community of Avila Beach (Figure 1-2).

Areas of Controversy Known to the Lead Agency

Traffic on Avila Beach Drive and the allocation of road capacity among coastal-dependent, coastal-related and other land uses continues to be a controversial issue in the Avila/Port San Luis area.

Summary of Environmental Impacts and Mitigation Measures

Table 1-1 provides a summary of the potential significant environmental impacts that could result from the project. Throughout this Final EIR, impacts are categorized according to their level of significance after mitigation has been applied. Four categories of impacts are identified:

Class I. Class I impacts are significant and unavoidable. To approve a project resulting in Class I impacts, the CEQA Guidelines require decision makers to make findings of overriding consideration that "… *specific legal, technological, economic, social, or other considerations make infeasible the mitigation measures or alternatives identified in the EIR*…".

Class II. Class II impacts are significant but can be mitigated to a level of insignificance by measures identified in this EIR and the project description. When approving a project with Class II impacts, the decision-makers must make findings that changes or alternatives to the project have been incorporated that reduce the impacts to a less than significant level.

Class III. Class III impacts are adverse but not significant.

Class IV. Beneficial impacts.

Impacts Found to be Less Than Significant

Based on evidence provided in the project description and initial study, the following impacts were found to be less than significant.

Agricultural resources Population and housing

Alternatives

A fundamental aspect of environmental analysis under CEQA is the identification and examination of alternatives to the proposed project {CEQA Guidelines Section 15126(d)}. The number and type of alternatives is not specified by law, but left to the "rule of reason" {Citizens of Goleta Valley v. Santa Barbara (1990) 54 Cal 3rd 353}. While alternatives need not be studied at the same level of detail as the proposed project, they should provide the reviewer with a reasonable opportunity to compare impacts of the various alternatives. The discussion should focus on alternatives capable of eliminating any significant adverse environmental effects, or reducing them to a level of insignificance, even if these alternatives would impede, to some degree, the attainment of the project objectives, or would be more costly {CEQA Guidelines 15126(d)(3)}.

The Alternatives section of this EIR focuses on alternatives capable of eliminating or reducing significant adverse environmental effects associated with the project, while providing decision-makers with a range of different policy choices and feasibly attaining the objectives of the project. The alternatives evaluated by this EIR include:

No Project

The No Project alternative is required by Section 15126.6 (e) of the CEQA Guidelines. Under the No Project Alternative, the Harbor District would continue to develop in accordance with the existing Port Master Plan adopted in 1983. Table 8.1 in Section 8: Alternatives, provides a summary of the

improvements recommended by the 1983 Master Plan. In general, the 1983 recommends somewhat less development of coastal-related uses than the 2003 Final Master Plan. Accordingly, impacts relating to traffic; water and wastewater generation; impacts to police and fire protection; storm water runoff; noise; and visual resources would be somewhat less at buildout than those expected from the 2003 Final Plan.

Alternative I -- Coastal Dependent Emphasis

Section 30255 of the Coastal Act states:

> *Coastal-dependent developments shall have priority over other developments on or near the shoreline. Except as provided elsewhere in this division, coastal-dependent developments shall not be sited in a wetland. When appropriate, coastal-related developments should be accommodated within reasonable proximity to the coastal-dependent uses they support.*

The Coastal Act favors the development of coastal-dependent uses in proximity to the ocean. Unfortunately, these uses traditionally do not generate sufficient revenues to keep pace with the rising cost of providing these services and facilities. On the other hand, coastal-*related* uses, such as retail shops and restaurants, are generally financial "winners". The Draft Port Master Plan seeks a balance between the two that will enable the Harbor District to meet its obligations to the public while satisfying these provisions of the Coastal Act.

If the Harbor District applied Section 30255 without consideration of its revenue implications, it would emphasize coastal-*dependent* uses and either reduce the level of service and facilities it provides or develop some other revenue source to make up the shortfall. Conversely, the Harbor District could emphasize coastal-*related* uses such as retail and restaurants with the notion that increased revenues could be used to subsidize and expand coastal-dependent uses. These two ends of the continuum between coastal-dependent and coastal-related represent the range of choices for decision-makers in balancing these competing interests.

Under the Coastal Dependent Emphasis alternative, all of the new lease spaces recommended by the Final Master Plan would be occupied by marine-related uses such as boat repair, fish processing and sport fishing, and exclude non-coastal dependent retail, food establishments or other coastal-related uses. For the Harbor Terrace site, the campgrounds/RV/cabins would be replaced by expanded fishermen laydown yards, boat repair and other coastal-dependent uses.

Alternative II – Near Term Emphasis of Coastal Related Uses

Under this alternative, all of the lease spaces would be occupied by general retail, food service and other coastal-related businesses with no expansion of the existing coastal-dependent uses. For the Harbor Terrace site, a 147-room hotel and 22,000 sq. ft. restaurant would be constructed instead of the park, campsites, and cabins.

Environmentally Superior Alternative

The discussion of alternatives provided in Chapter 8 of this FEIR concludes that the Coastal Dependent Emphasis alternative is the environmentally superior alternative. The next most environmentally superior alternative is the No Project Alternative.

Cumulative Impacts

The cumulative impact analysis (Chapter 7) assesses the cumulative impacts associated with reasonably foreseeable projects in the vicinity of the project, recognizing that development activities may be individually limited in their impact but cumulatively significant.

Mitigation Monitoring Program

Section 21081.6 of the Public Resources Code requires all state and local agencies to establish mitigation monitoring or reporting programs whenever approval of a project relies upon a mitigated negative declaration or an environmental impact report (EIR). The monitoring or reporting program must ensure implementation of the measures being imposed to mitigate or avoid the significant adverse environmental impacts identified in the mitigated negative declaration or EIR.

Class I Impacts

Air Quality

Impact A-2 Construction activities associated with uses accommodated by the Final Master Plan could generate emissions that may adversely impact local and regional air quality. This impact is considered significant after mitigation (Class I).

Mitigation Measures

AQ-1 The Harbor District shall, to the extent feasible, separate sensitive land uses from significant sources of air pollution.

AQ-2 The Harbor District shall submit environmental documents to the San Luis Obispo County Air Pollution Control District for review and comment in accordance with the California Environmental Quality Act prior to consideration for approval.

AQ-3 The Harbor District shall promote and encourage the use of alternate modes of transportation by incorporating public transit, bicycle, and pedestrian modes in new development.

AQ-4 The following measures shall be applied to reduce impacts related to PM_{10} and NO_x emissions from project construction to the extent feasible.

a. Equipment Emission Control Measures. To the extent feasible, newer construction equipment (manufactured after 1990) shall be used that produces fewer emissions, especially for the highest emitting piece of diesel-fired heavy equipment. In any case, all equipment shall be properly tuned and maintained. Additional measures that would reduce construction-related emissions include, but are not limited to:

- Retarding fuel injection timing two degrees from the manufacturer's recommendation.
- Using high pressure fuel injectors.
- The use of reformulated diesel fuel .
- The use of Caterpillar pre-chamber, diesel-fired engines (or equivalent low NO_x engine design) in heavy equipment used to construct the project to further reduce NO_x emissions.

b. Dust Control Measures. Dust generated by construction activities shall be kept to a minimum by full implementation of the following measures:

- During clearing, grading, earth moving, excavation, or transportation of cut or fill materials, water trucks or sprinkler systems are to be used when necessary to prevent dust from leaving the site and to create a crust after each day's activities cease;
- During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this would include wetting down such areas in the morning and after work is completed for the day and whenever wind exceeds 15 miles per hour;
- Stockpiled earth material shall be sprayed as needed to minimize dust generation.
- During construction, the amount of disturbed area shall be minimized.
- Onsite vehicle speeds should be reduced to 15 mph or less;
- Exposed ground areas that left exposed after project completion should be sown with a fast-germinating native grass seed and watered until vegetation is established;
- After clearing, grading, earth moving, or excavation is completed, the entire area of disturbed soil shall be treated immediately by watering or revegetating or spreading soil binders to minimize dust generation until the area is paved or otherwise developed so that dust generation will be minimized;
- Grading and scraping operations shall be suspended when necessary to minimize dust generation;
- All roadways, driveways, and sidewalks associated with construction activities should be paved as soon as possible. In addition, building and other pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

Residual Impacts

Unavoidable and adverse.

Traffic and Circulation

Impact T-2 Cumulative vehicle trips generated by buildout of the Port in accordance with the Final Master Plan in addition to trips associated with regional development, will adversely affect the level of service of Highway 101. This impact is considered significant and unavoidable (Class I).

Implement the recommendations of the 2003 Avila Circulation Study.

Residual Impacts

Unavoidable and adverse.

Class II Impacts

Geology and Geologic Hazards

Impacts GEO-2: In a major earthquake on the Los Osos or San Andreas faults, ground accelerations of 0.15g to 0.7g may occur, which would cause significant ground shaking within the Master Plan area resulting in damage to structures and a potential safety hazard to occupants of such structures. This impact is considered significant unless mitigated (Class II).

Impact GEO-3: Portions of the project area may be subject to landslides and/or slope failure. This impact is considered significant unless mitigated (Class II).

Impact GEO-5: Construction and operation of the various facilities proposed in the Port Master Plan has the potential to result in erosion of soils. This impact is considered significant unless mitigated (Class II).

Impact GEO-6 The planning area contains areas of undocumented fill, which may be unstable. This impact is considered significant unless mitigated (Class II).

Impact GEO-7 Field investigations of the Harbor Terrace planning area have revealed the potential for differential settlement which could damage foundations and/or the structural integrity of buildings. This impact is considered significant unless mitigated (Class II).

Impact GEO-8: Portions of the project area underlain by undocumented fill may exhibit expansive soils. This impact is considered significant unless mitigated (Class II).

Mitigation Measures

G-1 Future development shall conform with all applicable requirements of the Uniform Building Code and other applicable construction regulations relating to potential seismic and/or geologic and slope-related hazards.

G-2 No development shall occur until 1) a geologic investigation has been prepared conforming to Section 3309.6 of the Uniform Building Code, 1994 Edition as amended by pertinent sections of Title 24 of the California Code of Regulations, and standard geologic practice; and 2) a Geotechnical Engineering Investigation has been prepared conforming to Section 3309.5 of the Uniform Building Code, 1994 Edition as amended by pertinent sections of Title 24 of the California Code of Regulations, and standard geologic practice. The contents of these investigations are described below:

a. The geologic investigation shall be conducted by a certified Engineering Geologist, which at a minimum, shall address the following: the extent, depths, configurations, and activity levels of the existing major landslides, including the landslide that has been obscured by the buttress fill; the potential for destabilization of these landslides due to the proposed grading; the stability of slopes under the proposed grading and appropriate mitigation; evaluation of the sheared rock zone and its relations to fault activity; determination of the location of the San Luis Bay Fault at the site and its potential ramifications for the project; evaluations of the cut slope at the eastern corner of the site and its potential for instability, as well as appropriate mitigations; the potential for liquefaction and lateral spreading in the area where fill will be placed for the Port access road and which may extend into the Bay (Phase II); and assessment of the potential for bluff erosion along the coastal length of the project. This investigation will also provide feasible engineering and!or design solutions for these potential geologic impacts including the need for construction or augmentation of bluff protection and setback requirements from existing constraints.

b. The geotechnical engineering investigation shall be conducted by a Registered Geotechnical Engineer or a Registered Civil Engineer experienced ~. in geotechnical investigations. In addition to the items that normally are addressed in such an investigation, the report should include, but not be limited to, the following factors: soil and groundwater conditions encountered; preparation of the site prior to grading; grading criteria for pavement and building areas; types and depths of foundations; maximum allowable bearing capacities; site coefficients for use in foundation design; potential for liquefaction; total and differential settlement; resistance to lateral loads; subslab ground treatment; design criteria for retaining walls; pavement design criteria; site drainage; assessment of the existing fill at the site, including the suitability of the materials used, original site preparation, and degree of compaction; the impact of placing fill upon the existing fills and appropriate mitigation; settlement potential of the fill and appropriate mitigation; and placement of fill over cut slopes and appropriate mitigation. This investigation will also provide feasible engineering or design solutions to these potential geologic impacts.

G-3 There are five major landslides which have been identified on the Harbor Terrace site. These landslides are depicted as Landslides #1 through #5 in Figure 5.1-2. Specific recommendations related to each landslide are provided below as well as within the Geologic Hazards Study incorporated by reference into this FEIR and available for review at the Harbor District Offices.

a. Landslide 1, located in the eastern region of the site, shall be thoroughly assessed by the project geologist. In addition to analyzing the inherent stability of the landslide, the impact of making cuts in the body of the landslide must also be considered, as well as the impact of the 40-foot fill planned in the southeast region of the landslide. This study shall be conducted as part of the final project design, when final grades have been set and are available in a grading plan, yet while modifications are still possible to accommodate site conditions. This study shall be conducted as a feasibility study to determine the maj or characteristics of the slide and the extent of required mitigation. Specific measures that could be implemented, depending upon the characteristics of the landslide and the relationship of the landslide debris to the proposed building locations, include excavation of appropriate portions of the landslide and replacement with compacted fill. This type of grading solution would entail benching, the installation of drains, and possibly the use of geogrid reinforcing. Fill slopes shall not exceed a 2:1 horizontal to vertical ratio. Other alternatives could include stabilization systems utilizing tie-backs or caissons or project redesign to relocate structures out of the slide area.
b. Landslide 2, located in the northwest region of the site, shall be studied by the project geologist to determine its depth, activity level, and extent. This study shall be conducted as part of the final project design, as the relationship of the grading to the location and depth of the landslide will determine the appropriate mitigation(s). Possible mitigation measures for this landslide could include excavation of the landslide and replacement as a compacted fill, possibly with drains and geogrid reinforcement; increasing the height of the retaining wall to allow it to also function as a debris wall; or using another stabilizing system such as a tie-back system above the retaining wall in caissons.
c. Landslide 3, located below the existing water tank, shall be analyzed to determine its depth and geometry and the effect of the proposed cut upon slope stability. This study shall be conducted as part of the final project design, as a fairly accurate depth of cut must be known to properly assess its impact upon slope stability. As major cuts are planned in this area, mitigation could be achieved by modifying the grading plan to remove all of the landslide debris. Other possible mitigations could include replacement with compacted fill, possibly with drains and geogrid reinforcement, use of a retaining wall, tie-backs, or caissons.
d. The location of Landslide 4 has been obscured by past grading, and by the subsequent placement of a buttress fill. This landslide area shall be investigated as part of final project design with respect to the materials used and its state of compaction. Mitigation, if any, will be determined by the outcome of such an investigation. Possible mitigations include removal of the slide debris and replacement as a compacted fill, placement of additional buttress fill, or use of structural solutions such as retaining walls, tie-backs, or caissons. This assessment shall be conducted by the project geologist as part of final project design.
e. In addition to the four major landslides described above, there are numerous smaller landslides and slumps located throughout the property. Landslide 5 will not be impacted by project development other than the possibility of decreasing the need for frequent maintenance due to the placement of fill and the subsequent increased distance between the landslide and the affected roadway. In areas where cuts are made, the project geologist shall determine whether all of the slide debris has been removed in each area. This determination should be made during project grading. If it is determined that slide debris remains in any areas, assessments regarding stability and any necessary mitigation measures shall be made at that time.

G-4 In areas where cuts are planned, the stability of the proposed slopes shall be evaluated by the project geologist. This study shall be conducted as part of the final design, as the depths of the cuts must be known to accurately assess their impact upon slope stability. In the event that the slopes in their planned configurations prove unstable, there are several potential mitigation measures. These potential measures include flattening of the proposed slopes to a stable configuration, overcutting the slopes and rebuilding them as stable, compacted fit, and possibly structural applications, such as retaining walls, caissons, driven piles, and installation of geogrid reinforcement.

G-5 The project geotechnical engineer shall conduct sufficient exploration of the existing fill during final project design to render an opinion regarding the suitability of the fill materials use, the degree of compaction, the settlement characteristics, and the strength of the fill materials. The stability and settlement potential of the fill, following the proposed grading shall also be assessed. If the results of.this analysis indicate the existence of unstable soil materials, slope instability, inadequate compaction or excessive settlement potential, this situation shall be mitigated by project grading.

G-6 The placement of fill over cut slopes is specifically addressed in the Uniform Building Code; the potential for slope failure can be readily mitigated by proper grading techniques in accordance with the Uniform Building Code.

G-7 Slopes which involve new fill material over existing fill will require assessment by the project geotechnical engineer or geologist. Recommendations shall be developed as to the best method of mitigation. Such measures could include excavation of the cut slope and rebuilding the entire slope as a compacted fill, possibly utilizing drains andlor geogrid reinforcement. Recommendations from this shall be incorporated into the geotechnical engineering investigation or geologic study as part of the final project design.

G-8 Detailed grading plans shall be prepared and submitted for all project phases which identify existing and proposed drainage channels and proposed final site configuration. Grading plans shall be in conformance with the County Coastal Zone Land Use Ordinance.

G-9 It is recommended that on-site areas of sheared rock be evaluated by the project geologist and a determination made as to whether the sheared rock is fault-related. If the sheared rock zone is fault-related, the potential ramifications of the fault shall be studied and addressed by. the project geologist. Potential mitigation measures to avoid seismic-related displacement include: setting back from the fault, structural augmentation of the foundation where the fault is straddled or removing the bedrock and replacing it with compacted fill as the foundation support material.

G-10 The entire length of bluff along San Luis Bay shall be assessed through a Stability Evaluation Report to determine the rate of bluff retreat and the characteristics of wave run-up. The need for setbacks or bluff protection shall be addressed by the project geologist in this assessment. The adequacy of the existing rip-rap structures shall also be assessed and a determination made as to whether augmentation is necessary to protect the proposed improvements. With respect to the fill planned to support the widened access road (Phase II), mitigation measures for erosion will include construction of a retaining structure at the toe of the fill, facing the fill with rip-rap, constructing the lower portion of the fill out of rip-rap, or other equivalent design solution.

G-11 To mitigate the potential for excessive settlement of the proposed road fill, bay sediments shall be removed as necessary in order to place fill on the underlying competent rock. The depth to the rock, recommendations for overexcavation, and the precise design solution (i.e. retaining structure, use of rip-rap, etc.) shall be made by the geotechnical engineer as part of the final geotechnical engineering investigation.

G-12 The further erosion of Avila Beach Drive at the entrance to Diablo Canyon shall be mitigated by the installation of engineered rip-rap or equivalent protective measures.

Residual Impacts

Less than significant

Drainage and watershed Resources

Impact W-1 Construction of the various facilities identified in the Draft Port Master Plan will increase the amount of impervious surfaces at the project site, thereby increasing the volume and velocity of runoff, and the potential for erosion on and off the site. The increased runoff could increase the potential for sedimentation in the Pacific Ocean. This impact is considered significant unless mitigated (Class II).

Impact W-2 Heavy metals and other hazardous materials washed from the surface of parking lots and roadways could enter the ocean during a rainstorm. This impact is considered significant unless mitigated (Class II).

Impact W-3 Activities associated with construction (including excavation and grading) of facilities associated with the Draft Port Master Plan would increase the potential for erosion. This impact is considered significant unless mitigated (Class II).

Impact W-4 Construction activities could result in the release of oil, engine fuel and other toxic substances into nearby San Luis Bay, adversely affecting water quality. This impact is considered significant unless mitigated (Class II).

Mitigation Measures

D-1 Measures to be considered for the mitigation of potential drainage, erosion, seepage and water quality impacts associated with new development include, but are not limited to:

- The incorporation of on-site runoff collection systems which includes energy dissipation, berms, temporary settling basins, and/or a silt/hydrocarbon separator for the collection and removal of hazardous materials and sediments.
- The incorporation of on-site drainage systems to collect runoff from all impervious onsite services, including parking spaces, roads and buildings.
- The incorporation of offsite retention basins with appropriate water quality controls.
- Surface runoff should be collected by curbs, gutters and drainage swales and conveyed to an appropriate point of disposal. Discharges of greater than five feet per second should be released through an energy dissipator or outlet.
- The incorporation of sub-surface drains to intercept seepage and convey it to an acceptable point of disposal.
- Watering any construction sites at least twice per day during construction, or more frequently if determined necessary by the Harbor District.
- Re-vegetating portions of sites exclusive of paved areas as soon as reasonable following grading.
- Incorporating rain gutters and downspouts for buildings with adequate splash guard protection.
- Grading surfaces adjacent to buildings so that runoff is conveyed away from foundations and onto paved surfaces or underground collection pipes.

D-2 Prior to the commencement of new construction activities, a General Construction Activity Storm Water Permit from the Regional Water Quality Control Board (RWQCB) shall be obtained. As part of this permit, a storm water pollution prevention plan shall be prepared specifying Best Management Practices (BMPs) for erosion control and stormwater pollutant discharge control during any construction activities. For all project components, grading and drainage plans shall incorporate BMPs for erosion control and stormwater pollutant discharge control. This may also serve to reduce non-project-related sediment loads further downstream.

D-3 All newly constructed impervious surfaces, including parking spaces, streets and roads, and storage lots, shall drain to an underground storm drainage system or improved channel. Surface runoff will be collected by curbs, gutters and drainage swales to storm drain pipe inlets. Runoff will be kept underground until it is released to a graded or improved natural channel. Discharges greater than five feet per second will be released through an energy dissipator structure at the drainage system outlet.

D-4 New roadside shoulders beyond the edge of pavement shall only be used for minor road embankment runoff and emergency overflows from underground pipe systems Additional drainage swales, inlets and channels will be provided on grading plans in order to handle sheet flows that would otherwise be directed across roads.

D-5 The following grading procedures shall be included in order to minimize the potential for drainage and erosion problems on slope banks:

- Locate terrace drain ditches at the top of fill slopes greater than a gradient of 4 horizontal to 1 vertical. Allow only surface runoff which is incidental over the face of a fill slope.
- Include terrace drains and velocity dissipators on existing and proposed slopes greater than 35 feet in height.
- Install wicks, subdrains or other improvements, as necessary, to insure that groundwater seepage does not occur on man-made slopes.

D-6 All areas disturbed by grading activities shall be seeded with native or naturalized grasses to reduce dust emissions and erosion.

D-7 New storm drain inlets and pipe systems shall be added along the edge of the bluff to prevent flows from being released onto unprotected slopes.

D-8 A site-specific erosion control and temporary revegetation plan shall be developed for all new grading. This plan shall include erosion control devices to be installed prior to the beginning of the rainy season (October 15).

D-9 Prior to grading operations, application for a construction Storm Water Discharge General Permit shall be submitted to the Regional Water Quality Control Board. This permit request will be accompanied by an indication of construction site erosion control practices, soil tracking control methods and practices, and moisture control of surfaces for dust control.

D-10 An erosion and sedimentation control plan as required by the National Pollution Discharge Elimination System permit shall be prepared for all new construction. This permit request will comply with all the drainage protection measures and procedures of the on-site Storm Water Pollution Prevention Plan (SWPPP).

D-11 A Revegetation Plan shall be prepared for all newly graded areas. The goal of this plan is to (1) ensure that sediment is not eroded and transported off-site; and (2) upon completion of construction, to re-establish vegetation compatible with surrounding native plantings.

D-12 Additional rock dissipator protection shall be provided at new culvert outlets along Avila Beach Drive and at the existing 5 foot diameter culvert for the Diablo Canyon Road channel.

D-13 Additional rock protection along the shoreline (Avila Beach Drive) will be added to provide protection of the new and existing slopes during high surf conditions.

D-14 Prior to approval of new grading plans or grading permits, the applicant shall show the following note on grading and drainage plans:
No construction work will be permitted in any flowing channel and no graded material or debris will be placed within existing storm drain channels. All work within seasonally dry streambeds shall be in accordance with permits issued by the County of San Luis Obispo and the Regional Water Quality Control Board.

Residual Impacts

Less than significant.

Cultural Resources

Impact C-1: Development of facilities in accordance with the Draft Port Master Plan could unearth or disturb previously undiscovered resources of cultural or historic significance. This impact is considered significant unless mitigated (Class II).

Impact C-2: Development of facilities on Harford Pier could alter the historic character of the Pier. This impact is considered significant unless mitigated (Class II).

Impact C-3: Development of facilities near the Port San Luis Lighthouse could alter the historic character of the lighthouse and its setting. This impact is considered significant unless mitigated (Class II).

Mitigation Measures

C-1 In the event archaeological resources are unearthed during project construction, all earth disturbing work within the vicinity of the find must be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find. After the find has been appropriately mitigated, work in the area may resume. A Chumash representative should monitor any mitigation work associated with prehistoric cultural material.

C-2 If human remains are unearthed, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC).

Residual Impacts
Less than significant.

Noise

Impact N-1 Noise associated with construction activities on District properties may adversely impact nearby noise-sensitive uses. This impact is considered significant unless mitigated (Class II).

Mitigation Measures

N-1 All construction equipment shall be in proper operating condition and fitted with factory standard silencing features.

i. A haul route plan shall be prepared for review and approval by the Harbor District.

ii. Whenever practical, the noisiest construction operations shall be scheduled to occur together in the construction program to avoid continuous periods of noise generation. Scheduling of noisier construction activities shall also take advantage of summer sessions and other times when classes are not in session.

iii. Project construction activities that generate noise in excess of 60 dB at the project site boundary shall be limited to the hours of 7 a.m. to 6 p.m.

N-2 All large construction equipment will be equipped with "critical" grade noise mufflers. Noise level reductions associated with the use of "critical" rather than "stock" grade mufflers can be as high as 5 dBA. Engines will also be tuned to insure lowest possible noise levels.

N-3 Detailed noise analyses shall be prepared when grading plans are developed to fully determine the need and extent of temporary and/or permanent noise barriers. Final noise barrier heights shall be determined with final grading plans indicating lot locations, trailer setbacks, and precise pad elevations are developed. The barriers may consist of a berm, wall, or a combination berm and wall. Walls should not contain holes or gaps, and should be constructed of slumpstone or other masonry material.

N-4 Equipment lay-down areas, staging areas or those areas that are reserved for testing and repairing of construction equipment shall be located as far away from sensitive receptors..

Residual Impacts

Less than significant.

Services

Impact PS-1 Facilities associated with buildout of the Draft Port Master Plan would place additional structures, life and property at risk for damage or destruction from wildland fires and/or structural fires. In particular, development of the Harbor Terrace planning area will pose a risk to wildland fire. This impact is considered significant unless mitigated (Class II).

Impact PS-2 Buildout of the Port Master Plan will increase the demand for police protection. This impact is considered significant unless mitigated (Class II).

Mitigation Measures

PS-1 New development shall not be allowed until adequate public services and facilities to serve such development are provided. Where existing facilities are inadequate, new development may only be approved when the following conditions are met:

a. It can demonstrated that all necessary public facilities will be installed or adequately financed (through fees or other means); and
b. The facilities improvements are consistent with applicable facility plans approved by the Harbor District, the County and/or such other agencies in which provides services to the Port.

PS-2 Future development shall be required to pay all applicable Public Facilities Fees to the County of San Luis Obispo to offset potential impacts to, among other County services, police and fire protection services.

PS-3 Where determined by the Harbor District, plans for new development shall be submitted for review by the San Luis Obispo County Sheriffs Department to assess the adequacy in which a project's design addresses the following issues:: emergency access, internal circulation and provision of "defensible space". The recommendations of the Sheriffs Department shall be considered by the Harbor District in deciding to approve such new development.

PS-4 The Harbor District shall ensure that all proposed developments are reviewed for compliance with fire safety standards per the California Fire Code and other standards and ordinances of the CDF/San Luis Obispo County Fire Department. Issues to be considered in the review of future development include, but are not limited to, the following:

a. Improved emergency access to Harford Pier;
b. Improved fire protection systems on the pier, including hydrants, sprinklers and standpipes to meet current fire codes;
c. The installation of grates on the pier for automatic ventilation to stop the spread of fire;
d. Improved access to the Lightstation for fire protection;
e. Development of an all-weather secondary access road from Port San Luis to San Luis Bay Drive;

PS-5 The Harbor District shall promote the efficient use of water and reduced water demand by:
a. Requiring water-conserving design and equipment in new construction;
b. Encouraging water-conserving landscaping and other conservation measures;
c. Encouraging the retrofitting of existing fixtures with water-conserving fixtures;

PS-6 The Harbor District shall promote maximum use of solid waste source reduction, recycling, composting and environmentally-safe transformation of wastes.

PS-7 The Harbor District shall require that all new development complies with applicable provisions of the San Luis Obispo County Integrated Waste Management Plan.

PS-8 All water mains and fire hydrants shall provide required fire flows and shall be constructed in accordance with the specifications of the County of San Luis Obispo. the California Department of Forestry or other applicable standards.

PS-9 Where determined by the Harbor District, plans for new development shall be reviewed by the County of San Luis Obispo to insure that building materials, access, brush clearance and water storage capacity provide adequate fire protection to the proposed project.

PS-10 Prior to the approval of any site plans for development areas adjacent to open space, a Fuel Reduction Plan shall be submitted to the County of San Luis Obispo and the California Department of Forestry for approval. This Fuel Reduction Plan will provide for an acceptable level of risk in accordance with California Department of Forestry standards. Fuel reduction can be achieved through a gradual transition from native vegetation into irrigated landscape/building areas of the project. This fuel reduction program shall also establish parameters for the percent, age, extent, and nature of native plant removal necessary to achieve the accepted fire prevention standards required to protect human lives and property, while preserving as much natural habitat as possible.

PS-11 The Harbor District or its designated assignee shall be responsible for maintenance of Fuel Reduction Zones where required of new development. Maintenance agreements shall be submitted to the County of San Luis Obispo and the California Department of Forestry for approval.

PS-12 All water lines shall be designed and installed in accordance with requirements of the County of San Luis Obispo and County Service Area Number 12.

PS-13 New development on the Harbor Terrace site shall comply with County of San Luis Obispo and County Service Area Number 12 requirements concerning the installation and use of reclaimed water systems for landscape irrigation.

PS-14 New development shall incorporate native plant species and ornamental species which are drought-tolerant and/or have low irrigation requirements.

PS-15 If available, reclaimed water shall be utilized to irrigate major landscaped and planted areas. The on-site water distribution system shall be designed and constructed in a manner to provide separate reclaimed water lines. Such a system shall comply with all County of San Luis Obispo and Regional Water Quality Control Board Requirements for the installation and operation if reclaimed water systems.

PS-16 All wastewater collection lines shall be designed and installed in accordance with requirements of the County of San Luis Obispo and the Avila Beach County Water District.

PS-17 No new development shall be approved without first providing assurance that adequate capacity exists in Sewage Lift Station #181 located adjacent to Avlla Beach Drive. Where necessary, plans for redesign or upsizing of this facility shall be submitted to the County of San Luis Obispo and the Avila Beach Community Services District prior to issuance of building permits.

PS-18 Development plans shall delineate the number, location, and general design of solid waste enclosures and storage areas for recycled material.

PS-19 Maintenance of all developed park, open space and recreation facilities on the Harbor Terrace site shall be the responsibility of either the Port San Luis Harbor District or its designee and/or another suitable entity or a combination of the above.Where applicable all recreational facilities (bluff top parks, etc.) shall be landscaped and, where necessary, irrigated.

PS-20 New development shall provide parking in accordance with standards established by the Port San Luis Harbor District, the County of San Luis Obispo and the California Coastal Act.

Residual Impacts
Less than significant.

Biological Resources

Impact B-2: Implementation of the Final Master Plan would not adversely affect riparian habitat, but may impact needlegrass grassland, coastal tidal areas, and other sensitive natural communities. This impact is considered significant unless mitigated (Class II).

Impact B-3: Development of Harbor District facilities will increase the area of impervious surfaces, increasing stormwater run-off into San Luis Bay, which could indirectly affect sensitive species habitat. This impact is considered significant unless mitigated (Class II).

Impact B-4 Development of the Harbor Terrace site may disrupt wildlife movement along the slope above the site. This impact is considered significant unless mitigated (Class II).

Mitigation Measures

B-1. Oak trees removed or damaged by project activities shall be replaced by planting oak trees in areas adjacent to existing oak woodlands outside project grading limits. These oak trees should be grown from locally collected acorns. San Luis Obispo County recommends a 4:1 replacement of oak trees removed or damaged by development activities. Existing oak trees shall be beneficially incorporated where possible in the project landscaping along with other native species.

B-2. Grading and construction in and adjacent to sensitive native habitat areas shall be minimized. Project grading activities shall generally avoid steep slopes and bluff areas.

B-3. Construction limits shall be clearly defined and enforced. Oak tree protective measures shall be incorporated by installing construction fencing outside of the drip line of oak trees and preventing any construction or grading activities from damaging existing oak trees.

B-4. Projects abutting open, natural areas, will incorporate a buffer zone incorporating fire clearance requirements, and transition zones between introduced and native landscaping. Maintenance of this buffer zone would include prevention of non-native vegetation in the project area from spreading into the native habitats surrounding the site.

B-5. Initial land-clearing and grading activities shall be scheduled to avoid spring and early summer months in areas where oak woodland or dense coastal scrub border the site. If clearing must occur during this time period, preconstruction surveys shall be conducted to identify nesting birds in coastal scrub and oak woodland habitats within 500 feet of any project grading or related activities (parking, equipment storage, construction office, etc.). If active nests of Cooper's hawk, northern harrier, white-tailed kite, or Bell's sage sparrow are found, construction or related activities shall be postponed within 500 feet of the nest until the young have fledged or the nest becomes inactive.

B-6. Botanical surveys shall be conducted to determine the presence and distribution of special-status plant species on the Harbor Terrace site prior to project approval. Botanical surveys shall be conducted by a qualified botanist during known flowering periods of plant species listed in Table 5.6-1 and focus on vegetated areas that would be disturbed by the project. If special-status species would be adversely affected by the project, mitigation measures shall include:

a. Relocating project components to avoid impacts;
b. Preservation of the majority of the population on the project site through a permanent conservation easement; and
c. Transplanting individual plants (perennials) or seeds (annuals) from impact areas to restoration areas.

Measure a. should be implemented if the plant is threatened or endangered or if a small percentage of the sensitive population on the project site would be affected. Otherwise, measures b. or c. may be implemented.

B-7. Native landscaping shall be designed and installed to discourage pedestrian access from the Harbor Terrace site into adjacent native habitats. In addition, if pets are allowed, designated pet areas shall be incorporated into the design of new development so pets are not allowed into nearby habitat areas or buffer zones that support native wildlife.

Residual Impacts

Less than significant.

Traffic and Circulation

Impact T-1 Vehicle trips generated by buildout of the Port in accordance with the Final Master Plan could adversely affect the operation of surrounding streets and intersections. This impact is considered significant unless mitigated (Class II).

Implement the recommendations of the Avila Circulation Study.

Residual Impacts

Less than significant.

Air Quality

Impact A-1 Motor vehicle and other long-term emissions associated buildout of the Port facilities in accordance with the Final Master Plan would contribute to the lack of attainment of the State ozone and PM_{10} standards. This impact is considered significant unless mitigated (Class II).

Impact A-2 Dust generated by construction activities may be considered a nuisance adjacent to the project site. This impact is considered significant unless mitigated (Class II).

Mitigation Measures

AQ-5 The Harbor District shall, to the extent feasible, separate sensitive land uses from significant sources of air pollution.
AQ-6 The Harbor District shall submit environmental documents to the San Luis Obispo County Air Pollution Control District for review and comment in accordance with the California Environmental Quality Act prior to consideration for approval.
AQ-7 The Harbor District shall promote and encourage the use of alternate modes of transportation by incorporating public transit, bicycle, and pedestrian modes in new development.
AQ-8 The following measures shall be applied to reduce impacts related to PM_{10} and NO_x emissions from project construction to the extent feasible.

a. Equipment Emission Control Measures. To the extent feasible, newer construction equipment (manufactured after 1990) shall be used that produces fewer emissions, especially for the highest emitting piece of diesel-fired heavy equipment. In any case, all equipment shall be properly tuned and maintained. Additional measures that would reduce construction-related emissions include, but are not limited to:

- Maintain all construction equipment in proper tune according to manufacturer's specifications.
- Fuel all off-road and portable diesel powered equipment, including but not limited to bulldozers, graders, cranes, loaders, scrapers, backhoes, generator sets, compressors, auxiliary power units, with ARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road).
- Maximize to the extent feasible, the use of diesel construction equipment meeting the ARBs 1996 or newer certification standard for off-road heavy duty diesel engines.
- Should project emissions exceed the APCD's CEQA significance threshold for quarterly emissions, construction equipment shall be retrofitted with the appropriate number of catalyzed diesel particulate filters (CDPF) or diesel oxidation catalysts (DOC). This determination must be conducted in consultation with the APCD.

b. Dust Control Measures. Dust generated by construction activities shall be kept to a minimum by full implementation of the following measures:

- During clearing, grading, earth moving, excavation, or transportation of cut or fill materials, water trucks or sprinkler systems are to be used when necessary to prevent dust from leaving the site and to create a crust after each day's activities cease;
- During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this would include wetting down such areas in the morning and after work is completed for the day and whenever wind exceeds 15 miles per hour;
- Stockpiled earth material shall be sprayed as needed to minimize dust generation.
- During construction, the amount of disturbed area shall be minimized.
- Onsite vehicle speeds should be reduced to 15 mph or less;
- Exposed ground areas that left exposed after project completion should be sown with a fast-germinating native grass seed and watered until vegetation is established;
- After clearing, grading, earth moving, or excavation is completed, the entire area of disturbed soil shall be treated immediately by watering or revegetating or spreading soil binders to minimize dust generation until the area is paved or otherwise developed so that dust generation will be minimized;
- Grading and scraping operations shall be suspended when necessary to minimize dust generation;

- All roadways, driveways, and sidewalks associated with construction activities should be paved as soon as possible. In addition, building and other pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Permanent dust control measures identified in the approved project re-vegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities.
- Install wheel washers or rumble pads 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 should be used where feasible.

Residual Impacts
Less than significant.

Visual Resources

Impact V-1 Development of the various projects under the Master Plan will alter the visual character and/or quality of the project area. This impact is considered significant unless mitigated (Class II).

Impact V-3 Development of the various projects under the Master Plan may result in additional sources of light and glare. These new sources will be visible from adjoining areas and may be visible from areas beyond the Port. This impact is considered significant unless mitigated (Class II).

Mitigation Measures

V-1. Grading shall be designed to conserve natural topographic features and appearances by means of land sculpturing to blend graded slopes and benches with natural topography.

V-2. Construction equipment and staging areas for the development of the Harbor Terrace and Avila parking lot sites shall be stored and located in the least visually prominent location on site, and/or screened from public view.

V-3. Lighting shall be hooded and designed to shine downward. To the extent practical, parking lot lighting shall be confined to the project site and shall be designed and oriented to ensure safety within the parking lots, access and pedestrian walks. Lighting will be installed with the minimum foot-candles necessary to ensure safety.

Residual Impacts

Less than significant.

Hazardous Materials

Impact HAZ-2: Development of the Harbor Terrace site may result in the exposure of existing contaminants in the soil. This impact is considered significant unless mitigated (Class II).

Impact HAZ-3 Serpentine soils are reportedly present on the Harbor Terrace site and may occur elsewhere throughout the project area. Construction on sites containing serpentine soils poses the risk of release of naturally occurring asbestos. This impact is considered significant unless mitigated (Class II).

Impact HAZ-4 Demolition of structures in the project area may result in hazards associated with lead-based paint and asbestos containing materials. Demolition of these structures poses risk of release of these hazardous materials into the environment. This impact is considered significant unless mitigated (Class II).

Impact HAZ-5 Fluorescent light ballasts and removal of any electrical transformers in the project area may pose hazards to the public associated with the release of PCBs. This impact is considered significant unless mitigated (Class II).

Mitigation Measures

HAZ-1 The use, transport, storage and disposal of hazardous materials on all Harbor District property shall be carried in accordance with the provisions of all applicable federal, State and local laws and regulations.

HAZ-2 During project grading in areas known to contain contaminants, monitoring of earthwork shall be performed to determine if levels of BTEX or other compounds of interest to the APCD (lead, volatile organic compounds such as gasoline and solvents, and asbestos exceed established exposure thresholds.

HAZ-3 Grading shall either be performed during the dry season or will be subject to specific erosion control measures (see "Mitigation Measures" in Drainage and Watershed Resources) to prevent erosion of the soil and possible transport of contaminated soils into off-site watercourses.

HAZ-4 Any oil-contaminated soil discovered during construction shall be disposed off-site at an appropriate facility or used as fill in parking lots or roadways. Areas of finished grade shall not have any surface exposures of oil-contaminated soils. Any activities involving remediation or the handling and disposal of hazardous materials or waste shall comply with all relevant regulations and permitting requirements of the Air Pollution Control District prior to the commencement of such activities.

HAZ-5 Vapor barriers shall be placed below the foundation of all new structures in order to eliminate the potential for vapors entering any buildings.

HAZ-6 Where new construction may occur on soils expected to contain asbestos, an Asbestos Health and Safety Program for project construction activities shall be developed and submitted to the San Luis Obispo APCD for review and approval prior to the commencement of project grading. This program shall include the following elements:

1. Preparation of a sampling and survey work plan. Elements of this work plan should include, but are not limited to: geologic mapping of the site, sampling strategy, and lab analysis methodology.

2. Conduct sampling and survey activities and perform the required lab analysis. Results of these activities shall be submitted to the District for review 30 days prior to start of construction.

3. If ACM is determined to be present, an Asbestos Health and Safety Program for construction activities in serpentinite to comply with State and Federal law will be required. Work plan elements should include, but are not limited to:

   - construction and project strategy to *prevent* emissions to ambient air
   - notice to APCD of project start date ten working days in advance;
   - protection methods used to prevent worker exposure; and
   - a California certified asbestos environmental monitor or registered geologist with asbestos certification to be present on-site during construction activities to identify potential unmapped or subsurface serpentinite and to initiate APCD contractor/worker emergency procedures, if required.

   The Asbestos Health and Safety Program must reduce potential impacts associated with naturally-occurring asbestos to a less than significant level.

4. If ACM is determined to be present, no ACM is to be used as surface layer material on any part of the project (road beds, house pads, landscaped areas,

5. If ACM is determined to be present, notification to employees and patrons that ACM is present shall be required.

6. If ACM is not found in the serpentine deposits on-site, the following items are required:

- the preparation of an emergency work plan to address potential unmapped or subsurface serpentinite.
- a certified asbestos environmental monitor or registered geologist with asbestos certification shall be present during construction activities to initiate emergency work plan if necessary, and
- APCD shall be notified of project start date.

HAZ-7 A demolition asbestos survey will be conducted prior to any modifications or demolition of the on-site buildings or storage yards, in accordance with federal NESHAP regulations. The asbestos survey will be conducted by a California-licensed asbestos consultant. If asbestos-containing materials (ACM) are found in the on-site buildings or storage yards, the ACM must be abated prior to the commencement of demolition activities. Abatement activities will be conducted by a California-licensed asbestos abatement contractor. ACM wastes will be disposed at a properly licensed disposal facility.

HAZ-8 A lead-based paint survey will be conducted prior to commencement of demolition activities. The survey will be conducted by a California-licensed lead consultant. If lead-based paint is identified on the building materials, the paint may be required to be abated prior to demolition if found to be in poor condition. Waste materials containing lead-based paint will be properly characterized for disposal to determine if the material exceeds state or federal hazardous waste thresholds.

HAZ-9 On-site electrical transformers will be inspected prior to commencement of demolition activities to determine whether they may contain PCBs. Any unlabeled transformer shall be assumed to contain PCBs unless proven otherwise through testing or information from the manufacturer. PCB-containing transformers will be disposed as federal hazardous wastes.

HAZ-10 Fluorescent light ballasts will be inspected prior to commencement of demolition activities to determine if the ballasts could contain PCBs. Unlabeled ballasts shall be considered PCB containing unless proven otherwise through testing or information from the manufacturer. PCB-containing ballast will be disposed as federal hazardous wastes.

Residual Impacts

Less than significant.

Class III Impacts

Geology and Geologic Resources

Impact GEO-1 Although seismic events could result in groundshaking in virtually every planning area, the potential for ground rupture in the Master Plan area is considered low. This impact is considered adverse but not significant (Class III).

Impact GEO-9 Overexcavation of undocumented fill may result in the need to export soils and materials out of the Avila Beach area. This impact is considered adverse but not significant (Class III).

Impact GEO-10 Interference with wave action and current patterns of sand sourcing and deposition is not anticipated under this plan. This impact is considered adverse but not significant (Class III).

Services

Impact PS-3 A portion of the increased development accommodated by the Final Master Plan will increase the demand for water. This impact is considered adverse but not significant (Class III).

Impact PS-4 Buildout of the various facilities accommodated by the Port Master plan will generate additional wastewater that would be collected and treated by the Avila Beach wastewater treatment plant. Increased wastewater generation could adversely impact the wastewater collection system serving the Port, and could secondarily impact the capacity of the wastewater treatment plant. This impact is considered adverse but not significant (Class III).

Impact PS-6 Buildout of the Port in accordance with the Final Master Plan will generate additional solid waste which will adversely impact landfill capacity. This impact is considered adverse but not significant (Class III).

Biological Resources

Impact B-1: Construction of facilities may result in the loss of habitat for special-status plant and animal species or the loss of individuals. This impact is considered adverse but not significant (Class III).

Impact B-5 Construction activities and occupancy of facilities would extend existing human-related disturbance (human presence, wildlife predation by pets, noise, dust, lighting) further into open space areas. This impact is considered adverse but not significant (Class III).

Noise

Impact N-2 Noise associated with vehicle trips to and from the Port and associated facilities will increase. This impact is considered adverse but not significant (Class III).

Traffic and Circulation

Impact T-3 Additional trips associated with buildout of the Port in accordance with the Final Master Plan could conflict with emergency evacuation plans associated with Diablo Canyon Nuclear Power Plant. This impact is considered adverse but not significant (Class III).

Impact T-4 Development of a 3,000 square foot commercial lease space on the Avila parking lot would remove no more than 17 parking spaces while increasing the demand for parking. In addition, development of a new 4,250 square foot lease space on the Avila Pier terminus will increase the demand for parking. This impact is considered adverse but not significant (Class III).

Impact T-5 Development of uses accommodated by the Final Master Plan will increase the demand for parking at Port facilities. This impact is considered adverse but not significant (Class III).

Visual Resources

Impact V-2 Grading and construction activities and the storage of construction materials may be visible from public vantage points. This impact is considered adverse but not significant (Class III).

Hazardous Materials

Impact HAZ-1: Construction and operation of Port facilities and improvements may involve the routine use, storage or transport of limited amounts of hazardous materials which may pose a risk to the environment. This impact is considered adverse but not significant (Class III).

APPENDIX C.
AIR QUALITY AND GREENHOUSE GAS EMISSIONS BACKGROUND INFORMATION

Port San Luis Harbor Terrace

San Luis Obispo County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	15.80	1000sqft	0.36	15,800.00	0
General Light Industry	10.00	1000sqft	0.23	10,000.00	0
City Park	1.00	Acre	1.00	43,560.00	0
High Turnover (Sit Down Restaurant)	3.00	1000sqft	0.07	3,000.00	0
Hotel	31.00	Room	0.28	12,196.80	0
User Defined Recreational	151.00	User Defined Unit	4.47	194,713.00	0
Single Family Housing	1.00	Dwelling Unit	0.32	1,800.00	3
Convenience Market (24 Hour)	2.00	1000sqft	0.05	2,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2016
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 - Area for hotel units and user defined recreational based on site plan.

Demolition -

Grading - Acres disturbed based on limits of grading identified in Preliminary Grading Plan (2014).

Vehicle Trips - Trip generation based on Transportation Impact Study (CCTC 2014). User defined recreation (campsites) trip rates and % - applied same default rates as hotel use.

Woodstoves - Assume worst-case scenario: conventional woodstoves in hotel/motel units (31).

Energy Use - RV sites estimated to use similar energy use as hotel use. Approximately 63% of the user defined recreationa use (campsites) are RV spots.

Water And Wastewater - Water use per campsite is conservatively estimated at 120 gallons per campsite, per day.

Solid Waste - Solid waste generation for user defined recreational (RV and campsites) is estimated to be similar to hotel uses.

Construction Off-road Equipment Mitigation - Assume Tier 2 engines and Level 3 diesel particulate filters on noted equipment.

Mobile Land Use Mitigation -

Area Mitigation - Use of low VOC architectual coatings, per Green Standard.

Water Mitigation -

Waste Mitigation -

Architectural Coating -

Area Coating - Use of low VOC architectural coatings per Green Standards, as proposed by the project.

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	71
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	71
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	71
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	71
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	LightingElect	0.00	1.71
tblEnergyUse	NT24E	0.00	2.03
tblEnergyUse	NT24NG	0.00	2.99
tblEnergyUse	T24E	0.00	1.58
tblEnergyUse	T24NG	0.00	26.23
tblGrading	AcresOfGrading	10.00	16.50
tblGrading	AcresOfGrading	0.00	16.50
tblGrading	MaterialExported	0.00	72,000.00
tblGrading	MaterialImported	0.00	43,000.00
tblLandUse	LandUseSquareFeet	45,012.00	12,196.80
tblLandUse	LandUseSquareFeet	0.00	194,713.00
tblLandUse	LotAcreage	1.03	0.28
tblLandUse	LotAcreage	0.00	4.47
tblProjectCharacteristics	OperationalYear	2014	2016
tblSolidWaste	SolidWasteGenerationRate	0.00	16.97
tblTripsAndVMT	HaulingTripNumber	9,000.00	14,375.00
tblVehicleTrips	CC_TTP	0.00	61.60
tblVehicleTrips	CNW_TTP	0.00	19.00
tblVehicleTrips	CW_TTP	0.00	19.40
tblVehicleTrips	DV_TP	0.00	38.00
tblVehicleTrips	PB_TP	0.00	4.00
tblVehicleTrips	PR_TP	0.00	58.00
tblVehicleTrips	ST_TR	1.59	2.00
tblVehicleTrips	ST_TR	863.10	134.50
tblVehicleTrips	ST_TR	1.32	3.00
tblVehicleTrips	ST_TR	2.37	11.01
tblVehicleTrips	ST_TR	158.37	72.30

tblVehicleTrips	ST_TR	0.00	2.70
tblVehicleTrips	SU_TR	1.59	2.00
tblVehicleTrips	SU_TR	758.45	134.50
tblVehicleTrips	SU_TR	0.68	3.00
tblVehicleTrips	SU_TR	0.98	11.01
tblVehicleTrips	SU_TR	131.84	72.30
tblVehicleTrips	SU_TR	5.95	8.19
tblVehicleTrips	SU_TR	0.00	2.70
tblVehicleTrips	WD_TR	1.59	2.00
tblVehicleTrips	WD_TR	737.99	134.50
tblVehicleTrips	WD_TR	6.97	3.00
tblVehicleTrips	WD_TR	127.15	72.30
tblVehicleTrips	WD_TR	0.00	2.70
tblWater	IndoorWaterUseRate	0.00	43,800.00
tblWoodstoves	NumberConventional	0.00	31.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	25.2820	307.9869	248.2898	0.5735	20.6045	6.3671	26.9715	10.1668	5.8566	13.0094	0.0000	58,356.7854	58,356.7854	1.4060	0.0000	58,386.3106
2016	329.2175	22.4949	15.7898	0.0239	0.2274	1.2621	1.4104	0.0603	1.1611	1.2005	0.0000	2,451.0466	2,451.0466	0.7069	0.0000	2,465.8904
Total	**354.4995**	**330.4818**	**264.0796**	**0.5975**	**20.8319**	**7.6292**	**28.3820**	**10.2271**	**7.0178**	**14.2099**	**0.0000**	**60,807.8320**	**60,807.8320**	**2.1128**	**0.0000**	**60,852.2011**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	22.1744	282.3856	241.9928	0.5735	15.7517	4.1565	19.9082	4.8503	3.8323	8.6826	0.0000	58,356.7854	58,356.7854	1.4060	0.0000	58,386.3106
2016	328.9084	11.1734	17.8998	0.0239	0.2274	0.0969	0.3243	0.0603	0.0967	0.1570	0.0000	2,451.0466	2,451.0466	0.7069	0.0000	2,465.8904
Total	**351.0829**	**293.5590**	**259.8926**	**0.5975**	**15.9791**	**4.2534**	**20.2325**	**4.9106**	**3.9290**	**8.8396**	**0.0000**	**60,807.8320**	**60,807.8320**	**2.1128**	**0.0000**	**60,852.2011**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.96**	**11.17**	**1.59**	**0.00**	**23.29**	**44.25**	**28.71**	**51.98**	**44.01**	**37.79**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	35.4731	1.4598	120.3365	0.2084		15.9410	15.9410		15.9410	15.9410	1,537.7829	0.1953	1,537.9782	15.6282	0.0000	1,866.1696
Energy	0.2209	2.0072	1.6823	0.0121		0.1526	0.1526		0.1526	0.1526		2,409.2701	2,409.2701	0.0462	0.0442	2,423.9325
Mobile	5.6094	10.1096	46.2886	0.0581	4.0882	0.1108	4.1990	1.0932	0.1017	1.1949		5,111.5366	5,111.5366	0.2637		5,117.0744
Total	**41.3033**	**13.5765**	**168.3074**	**0.2786**	**4.0882**	**16.2043**	**20.2926**	**1.0932**	**16.1952**	**17.2884**	**1,537.7829**	**7,521.0020**	**9,058.7849**	**15.9381**	**0.0442**	**9,407.1765**

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	6.5741	1.1900e-003	0.1060	1.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004	0.0000	0.1953	0.1953	2.8000e-004	0.0000	0.2013
Energy	0.1835	1.6678	1.3979	0.0100		0.1268	0.1268		0.1268	0.1268		2,001.9406	2,001.9406	0.0384	0.0367	2,014.1241
Mobile	5.5507	9.7363	45.1363	0.0555	3.8882	0.1061	3.9943	1.0397	0.0973	1.1371		4,875.7118	4,875.7118	0.2536		4,881.0376
Total	**12.3083**	**11.4053**	**46.6402**	**0.0655**	**3.8882**	**0.2334**	**4.1216**	**1.0397**	**0.2246**	**1.2644**	**0.0000**	**6,877.8477**	**6,877.8477**	**0.2923**	**0.0367**	**6,895.3629**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	70.20	15.99	72.29	76.49	4.89	98.56	79.69	4.89	98.61	92.69	100.00	8.55	24.08	98.17	16.91	26.70

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2015	1/14/2015	5	10	
2	Grading	Grading	1/15/2015	2/11/2015	5	20	
3	Building Construction	Building Construction	2/12/2015	12/30/2015	5	230	
4	Paving	Paving	12/31/2015	1/27/2016	5	20	
5	Architectural Coating	Architectural Coating	1/28/2016	2/24/2016	5	20	

Acres of Grading (Site Preparation Phase): 16.5

Acres of Grading (Grading Phase): 16.5

Acres of Paving: 0

Residential Indoor: 3,645; Residential Outdoor: 1,215; Non-Residential Indoor: 421,905; Non-Residential Outdoor: 140,635 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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
Site Preparation	7	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	14,375.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	117.00	46.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Replace Ground Cover

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2015

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					19.8161	0.0000	19.8161	10.1196	0.0000	10.1196			0.0000			0.0000
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412		4,111.7444	4,111.7444	1.2275		4,137.5225
Total	**5.2609**	**56.8897**	**42.6318**	**0.0391**	**19.8161**	**3.0883**	**22.9044**	**10.1196**	**2.8412**	**12.9608**		**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5225**

3.2 Site Preparation - 2015

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	0.1027	0.1497	1.3592	1.9400e-003	0.1780	1.5200e-003	0.1795	0.0472	1.3700e-003	0.0486		167.5980	167.5980	0.0110		167.8291
Total	**0.1027**	**0.1497**	**1.3592**	**1.9400e-003**	**0.1780**	**1.5200e-003**	**0.1795**	**0.0472**	**1.3700e-003**	**0.0486**		**167.5980**	**167.5980**	**0.0110**		**167.8291**

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					7.7283	0.0000	7.7283	3.9467	0.0000	3.9467			0.0000			0.0000
Off-Road	0.9515	19.4584	23.4003	0.0391		0.1442	0.1442		0.1442	0.1442	0.0000	4,111.7444	4,111.7444	1.2275		4,137.5224
Total	**0.9515**	**19.4584**	**23.4003**	**0.0391**	**7.7283**	**0.1442**	**7.8724**	**3.9467**	**0.1442**	**4.0908**	**0.0000**	**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5224**

3.2 Site Preparation - 2015

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	0.1027	0.1497	1.3592	1.9400e-003	0.1780	1.5200e-003	0.1795	0.0472	1.3700e-003	0.0486		167.5980	167.5980	0.0110		167.8291
Total	**0.1027**	**0.1497**	**1.3592**	**1.9400e-003**	**0.1780**	**1.5200e-003**	**0.1795**	**0.0472**	**1.3700e-003**	**0.0486**		**167.5980**	**167.5980**	**0.0110**		**167.8291**

3.3 Grading - 2015

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					7.9554	0.0000	7.9554	3.5650	0.0000	3.5650			0.0000			0.0000
Off-Road	3.8327	40.4161	26.6731	0.0298		2.3284	2.3284		2.1421	2.1421		3,129.0158	3,129.0158	0.9341		3,148.6328
Total	**3.8327**	**40.4161**	**26.6731**	**0.0298**	**7.9554**	**2.3284**	**10.2837**	**3.5650**	**2.1421**	**5.7070**		**3,129.0158**	**3,129.0158**	**0.9341**		**3,148.6328**

3.3 Grading - 2015

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	21.3638	267.4461	220.4840	0.5422	12.5008	4.0375	16.5383	3.4206	3.7134	7.1340		55,088.1046	55,088.1046	0.4627		55,097.8203
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	0.0856	0.1248	1.1327	1.6200e-003	0.1483	1.2700e-003	0.1496	0.0393	1.1400e-003	0.0405		139.6650	139.6650	9.1700e-003		139.8576
Total	**21.4494**	**267.5708**	**221.6166**	**0.5438**	**12.6491**	**4.0387**	**16.6878**	**3.4599**	**3.7145**	**7.1745**		**55,227.7696**	**55,227.7696**	**0.4718**		**55,237.6779**

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					3.1026	0.0000	3.1026	1.3903	0.0000	1.3903			0.0000			0.0000
Off-Road	0.7250	14.8148	20.3762	0.0298		0.1178	0.1178		0.1178	0.1178	0.0000	3,129.0158	3,129.0158	0.9341		3,148.6328
Total	**0.7250**	**14.8148**	**20.3762**	**0.0298**	**3.1026**	**0.1178**	**3.2204**	**1.3903**	**0.1178**	**1.5082**	**0.0000**	**3,129.0158**	**3,129.0158**	**0.9341**		**3,148.6328**

3.3 Grading - 2015

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	21.3638	267.4461	220.4840	0.5422	12.5008	4.0375	16.5383	3.4206	3.7134	7.1340		55,088.1046	55,088.1046	0.4627		55,097.8203
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	0.0856	0.1248	1.1327	1.6200e-003	0.1483	1.2700e-003	0.1496	0.0393	1.1400e-003	0.0405		139.6650	139.6650	9.1700e-003		139.8576
Total	**21.4494**	**267.5708**	**221.6166**	**0.5438**	**12.6491**	**4.0387**	**16.6878**	**3.4599**	**3.7145**	**7.1745**		**55,227.7696**	**55,227.7696**	**0.4718**		**55,237.6779**

3.4 Building Construction - 2015

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	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904		2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**3.6591**	**30.0299**	**18.7446**	**0.0268**		**2.1167**	**2.1167**		**1.9904**	**1.9904**		**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

3.4 Building Construction - 2015

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	0.6974	4.2497	7.9516	7.8000e-003	0.2095	0.0672	0.2767	0.0598	0.0618	0.1216		783.0165	783.0165	7.8000e-003		783.1802
Worker	0.6675	0.9732	8.8346	0.0126	1.1567	9.9000e-003	1.1666	0.3068	8.9100e-003	0.3157		1,089.3871	1,089.3871	0.0715		1,090.8889
Total	**1.3649**	**5.2229**	**16.7863**	**0.0204**	**1.3661**	**0.0771**	**1.4433**	**0.3666**	**0.0707**	**0.4373**		**1,872.4035**	**1,872.4035**	**0.0793**		**1,874.0691**

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	0.6712	14.1741	17.8156	0.0268		0.4011	0.4011		0.4011	0.4011	0.0000	2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**0.6712**	**14.1741**	**17.8156**	**0.0268**		**0.4011**	**0.4011**		**0.4011**	**0.4011**	**0.0000**	**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

3.4 Building Construction - 2015

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	0.6974	4.2497	7.9516	7.8000e-003	0.2095	0.0672	0.2767	0.0598	0.0618	0.1216		783.0165	783.0165	7.8000e-003		783.1802
Worker	0.6675	0.9732	8.8346	0.0126	1.1567	9.9000e-003	1.1666	0.3068	8.9100e-003	0.3157		1,089.3871	1,089.3871	0.0715		1,090.8889
Total	**1.3649**	**5.2229**	**16.7863**	**0.0204**	**1.3661**	**0.0771**	**1.4433**	**0.3666**	**0.0707**	**0.4373**		**1,872.4035**	**1,872.4035**	**0.0793**		**1,874.0691**

3.5 Paving - 2015

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	2.3172	25.1758	14.9781	0.0223		1.4148	1.4148		1.3016	1.3016		2,339.8984	2,339.8984	0.6986		2,354.5681
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3172**	**25.1758**	**14.9781**	**0.0223**		**1.4148**	**1.4148**		**1.3016**	**1.3016**		**2,339.8984**	**2,339.8984**	**0.6986**		**2,354.5681**

3.5 Paving - 2015

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	0.0856	0.1248	1.1327	1.6200e-003	0.1483	1.2700e-003	0.1496	0.0393	1.1400e-003	0.0405		139.6650	139.6650	9.1700e-003		139.8576
Total	**0.0856**	**0.1248**	**1.1327**	**1.6200e-003**	**0.1483**	**1.2700e-003**	**0.1496**	**0.0393**	**1.1400e-003**	**0.0405**		**139.6650**	**139.6650**	**9.1700e-003**		**139.8576**

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	0.5490	11.0645	16.9276	0.0223		0.0897	0.0897		0.0897	0.0897	0.0000	2,339.8984	2,339.8984	0.6986		2,354.5681
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5490**	**11.0645**	**16.9276**	**0.0223**		**0.0897**	**0.0897**		**0.0897**	**0.0897**	**0.0000**	**2,339.8984**	**2,339.8984**	**0.6986**		**2,354.5681**

3.5 Paving - 2015

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	0.0856	0.1248	1.1327	1.6200e-003	0.1483	1.2700e-003	0.1496	0.0393	1.1400e-003	0.0405		139.6650	139.6650	9.1700e-003		139.8576
Total	**0.0856**	**0.1248**	**1.1327**	**1.6200e-003**	**0.1483**	**1.2700e-003**	**0.1496**	**0.0393**	**1.1400e-003**	**0.0405**		**139.6650**	**139.6650**	**9.1700e-003**		**139.8576**

3.5 Paving - 2016

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	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0898**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**		**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

3.5 Paving - 2016

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	0.0728	0.1090	0.9722	1.6200e-003	0.1483	1.1600e-003	0.1495	0.0393	1.0500e-003	0.0404		134.6699	134.6699	8.1500e-003		134.8410
Total	**0.0728**	**0.1090**	**0.9722**	**1.6200e-003**	**0.1483**	**1.1600e-003**	**0.1495**	**0.0393**	**1.0500e-003**	**0.0404**		**134.6699**	**134.6699**	**8.1500e-003**		**134.8410**

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	0.5490	11.0645	16.9276	0.0223		0.0897	0.0897		0.0897	0.0897	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5490**	**11.0645**	**16.9276**	**0.0223**		**0.0897**	**0.0897**		**0.0897**	**0.0897**	**0.0000**	**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

3.5 Paving - 2016

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	0.0728	0.1090	0.9722	1.6200e-003	0.1483	1.1600e-003	0.1495	0.0393	1.0500e-003	0.0404		134.6699	134.6699	8.1500e-003		134.8410
Total	**0.0728**	**0.1090**	**0.9722**	**1.6200e-003**	**0.1483**	**1.1600e-003**	**0.1495**	**0.0393**	**1.0500e-003**	**0.0404**		**134.6699**	**134.6699**	**8.1500e-003**		**134.8410**

3.6 Architectural Coating - 2016

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	328.7374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**329.1058**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.6 Architectural Coating - 2016

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	0.1116	0.1671	1.4907	2.4800e-003	0.2274	1.7800e-003	0.2292	0.0603	1.6200e-003	0.0619		206.4938	206.4938	0.0125		206.7562
Total	**0.1116**	**0.1671**	**1.4907**	**2.4800e-003**	**0.2274**	**1.7800e-003**	**0.2292**	**0.0603**	**1.6200e-003**	**0.0619**		**206.4938**	**206.4938**	**0.0125**		**206.7562**

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	328.7374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**328.7968**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.6 Architectural Coating - 2016

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	0.1116	0.1671	1.4907	2.4800e-003	0.2274	1.7800e-003	0.2292	0.0603	1.6200e-003	0.0619		206.4938	206.4938	0.0125		206.7562
Total	**0.1116**	**0.1671**	**1.4907**	**2.4800e-003**	**0.2274**	**1.7800e-003**	**0.2292**	**0.0603**	**1.6200e-003**	**0.0619**		**206.4938**	**206.4938**	**0.0125**		**206.7562**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Walkability Design

Improve Pedestrian Network

Provide Traffic Calming Measures

	ROG	NOx	CO	SO2	Fugitive 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					
Unmitigated	5.6094	10.1096	46.2886	0.0581	4.0882	0.1108	4.1990	1.0932	0.1017	1.1949		5,111.5366	5,111.5366	0.2637		5,117.0744
Mitigated	5.5507	9.7363	45.1363	0.0555	3.8882	0.1061	3.9943	1.0397	0.0973	1.1371		4,875.7118	4,875.7118	0.2536		4,881.0376

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	2.00	2.00	2.00	4,065	3,866
Convenience Market (24 Hour)	269.00	269.00	269.00	143,788	136,753
General Light Industry	30.00	30.00	30.00	99,011	94,167
General Office Building	173.96	173.96	173.96	395,735	376,375
High Turnover (Sit Down Restaurant)	216.90	216.90	216.90	191,742	182,361
Hotel	253.27	253.89	253.89	408,375	388,396
Single Family Housing	9.57	10.08	8.77	24,217	23,033
User Defined Recreational	407.70	407.70	407.70	656,920	624,781
Total	1,362.40	1,363.53	1,362.22	1,923,852	1,829,731

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
City Park	13.00	5.00	5.00	33.00	48.00	19.00	66	28	6
Convenience Market (24 Hour)	13.00	5.00	5.00	0.90	80.10	19.00	24	15	61
General Light Industry	13.00	5.00	5.00	59.00	28.00	13.00	92	5	3
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	13.00	5.00	5.00	8.50	72.50	19.00	37	20	43
Hotel	13.00	5.00	5.00	19.40	61.60	19.00	58	38	4
Single Family Housing	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
User Defined Recreational	13.00	5.00	5.00	19.40	61.60	19.00	58	38	4

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.455937	0.042338	0.214948	0.150714	0.068093	0.009944	0.017510	0.022507	0.002330	0.001401	0.008743	0.000855	0.004680

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive 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	0.1835	1.6678	1.3979	0.0100		0.1268	0.1268		0.1268	0.1268		2,001.9406	2,001.9406	0.0384	0.0367	2,014.1241
NaturalGas Unmitigated	0.2209	2.0072	1.6823	0.0121		0.1526	0.1526		0.1526	0.1526		2,409.2701	2,409.2701	0.0462	0.0442	2,423.9325

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					
Convenience Market (24 Hour)	13.6438	1.5000e-004	1.3400e-003	1.1200e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.6052	1.6052	3.0000e-005	3.0000e-005	1.6149
General Light Industry	750.959	8.1000e-003	0.0736	0.0618	4.4000e-004		5.6000e-003	5.6000e-003		5.6000e-003	5.6000e-003		88.3481	88.3481	1.6900e-003	1.6200e-003	88.8858
General Office Building	745.414	8.0400e-003	0.0731	0.0614	4.4000e-004		5.5500e-003	5.5500e-003		5.5500e-003	5.5500e-003		87.6957	87.6957	1.6800e-003	1.6100e-003	88.2294
High Turnover (Sit Down Restaurant)	1734.58	0.0187	0.1701	0.1429	1.0200e-003		0.0129	0.0129		0.0129	0.0129		204.0677	204.0677	3.9100e-003	3.7400e-003	205.3096
Hotel	1549.83	0.0167	0.1519	0.1276	9.1000e-004		0.0116	0.0116		0.0116	0.0116		182.3328	182.3328	3.4900e-003	3.3400e-003	183.4425
Single Family Housing	96.6656	1.0400e-003	8.9100e-003	3.7900e-003	6.0000e-005		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004		11.3724	11.3724	2.2000e-004	2.1000e-004	11.4416
User Defined Recreational	15587.7	0.1681	1.5282	1.2837	9.1700e-003		0.1161	0.1161		0.1161	0.1161		1,833.8481	1,833.8481	0.0352	0.0336	1,845.0086
City Park	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
Total		**0.2209**	**2.0072**	**1.6823**	**0.0121**		**0.1526**	**0.1526**		**0.1526**	**0.1526**		**2,409.2701**	**2,409.2701**	**0.0462**	**0.0442**	**2,423.9325**

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					
Convenience Market (24 Hour)	0.0109151	1.2000e-004	1.0700e-003	9.0000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		1.2841	1.2841	2.0000e-005	2.0000e-005	1.2919
General Light Industry	0.637315	6.8700e-003	0.0625	0.0525	3.7000e-004		4.7500e-003	4.7500e-003		4.7500e-003	4.7500e-003		74.9782	74.9782	1.4400e-003	1.3700e-003	75.4346
General Office Building	0.59685	6.4400e-003	0.0585	0.0492	3.5000e-004		4.4500e-003	4.4500e-003		4.4500e-003	4.4500e-003		70.2177	70.2177	1.3500e-003	1.2900e-003	70.6450
High Turnover (Sit Down Restaurant)	1.63008	0.0176	0.1598	0.1342	9.6000e-004		0.0122	0.0122		0.0122	0.0122		191.7737	191.7737	3.6800e-003	3.5200e-003	192.9408
Hotel	1.27161	0.0137	0.1247	0.1047	7.5000e-004		9.4700e-003	9.4700e-003		9.4700e-003	9.4700e-003		149.6010	149.6010	2.8700e-003	2.7400e-003	150.5114
Single Family Housing	0.0805527	8.7000e-004	7.4200e-003	3.1600e-003	5.0000e-005		6.0000e-004	6.0000e-004		6.0000e-004	6.0000e-004		9.4768	9.4768	1.8000e-004	1.7000e-004	9.5345
User Defined Recreational	12.7892	0.1379	1.2538	1.0532	7.5200e-003		0.0953	0.0953		0.0953	0.0953		1,504.6090	1,504.6090	0.0288	0.0276	1,513.7658
City Park	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
Total		**0.1835**	**1.6678**	**1.3979**	**0.0100**		**0.1268**	**0.1268**		**0.1268**	**0.1268**		**2,001.9406**	**2,001.9406**	**0.0384**	**0.0367**	**2,014.1240**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive 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					
Unmitigated	35.4731	1.4598	120.3365	0.2084		15.9410	15.9410		15.9410	15.9410	1,537.7829	0.1953	1,537.9782	15.6282	0.0000	1,866.1696
Mitigated	6.5741	1.1900e-003	0.1060	1.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004	0.0000	0.1953	0.1953	2.8000e-004	0.0000	0.2013

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	1.8013					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0577					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	27.6093	1.4586	120.2305	0.2084		15.9404	15.9404		15.9404	15.9404	1,537.7829	0.0000	1,537.7829	15.6279	0.0000	1,865.9683
Landscaping	4.8200e-003	1.1900e-003	0.1060	1.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004		0.1953	0.1953	2.8000e-004		0.2013
Total	**35.4731**	**1.4598**	**120.3365**	**0.2084**		**15.9410**	**15.9410**		**15.9410**	**15.9410**	**1,537.7829**	**0.1953**	**1,537.9782**	**15.6282**	**0.0000**	**1,866.1696**

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	0.5116					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0577					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	4.8200e-003	1.1900e-003	0.1060	1.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004		0.1953	0.1953	2.8000e-004		0.2013
Total	**6.5741**	**1.1900e-003**	**0.1060**	**1.0000e-005**		**5.3000e-004**	**5.3000e-004**		**5.3000e-004**	**5.3000e-004**	**0.0000**	**0.1953**	**0.1953**	**2.8000e-004**	**0.0000**	**0.2013**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Vegetation

Port San Luis Harbor Terrace

San Luis Obispo County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	15.80	1000sqft	0.36	15,800.00	0
General Light Industry	10.00	1000sqft	0.23	10,000.00	0
City Park	1.00	Acre	1.00	43,560.00	0
High Turnover (Sit Down Restaurant)	3.00	1000sqft	0.07	3,000.00	0
Hotel	31.00	Room	0.28	12,196.80	0
User Defined Recreational	151.00	User Defined Unit	4.47	194,713.00	0
Single Family Housing	1.00	Dwelling Unit	0.32	1,800.00	3
Convenience Market (24 Hour)	2.00	1000sqft	0.05	2,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2016
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 - Area for hotel units and user defined recreational based on site plan.

Demolition -

Grading - Acres disturbed based on limits of grading identified in Preliminary Grading Plan (2014).

Vehicle Trips - Trip generation based on Transportation Impact Study (CCTC 2014). User defined recreation (campsites) trip rates and % - applied same default rates as hotel use.

Woodstoves - Assume worst-case scenario: conventional woodstoves in hotel/motel units (31).

Energy Use - RV sites estimated to use similar energy use as hotel use. Approximately 63% of the user defined recreationa use (campsites) are RV spots.

Water And Wastewater - Water use per campsite is conservatively estimated at 120 gallons per campsite, per day.

Solid Waste - Solid waste generation for user defined recreational (RV and campsites) is estimated to be similar to hotel uses.

Construction Off-road Equipment Mitigation - Assume Tier 2 engines and Level 3 diesel particulate filters on noted equipment.

Mobile Land Use Mitigation -

Area Mitigation - Use of low VOC architectual coatings, per Green Standard.

Water Mitigation -

Waste Mitigation -

Architectural Coating -

Area Coating - Use of low VOC architectural coatings per Green Standards, as proposed by the project.

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	71
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	71
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	71
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	71
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	LightingElect	0.00	1.71
tblEnergyUse	NT24E	0.00	2.03
tblEnergyUse	NT24NG	0.00	2.99
tblEnergyUse	T24E	0.00	1.58
tblEnergyUse	T24NG	0.00	26.23
tblGrading	AcresOfGrading	10.00	16.50
tblGrading	AcresOfGrading	0.00	16.50
tblGrading	MaterialExported	0.00	72,000.00
tblGrading	MaterialImported	0.00	43,000.00
tblLandUse	LandUseSquareFeet	45,012.00	12,196.80
tblLandUse	LandUseSquareFeet	0.00	194,713.00
tblLandUse	LotAcreage	1.03	0.28
tblLandUse	LotAcreage	0.00	4.47
tblProjectCharacteristics	OperationalYear	2014	2016
tblSolidWaste	SolidWasteGenerationRate	0.00	16.97
tblTripsAndVMT	HaulingTripNumber	9,000.00	14,375.00
tblVehicleTrips	CC_TTP	0.00	61.60
tblVehicleTrips	CNW_TTP	0.00	19.00
tblVehicleTrips	CW_TTP	0.00	19.40
tblVehicleTrips	DV_TP	0.00	38.00
tblVehicleTrips	PB_TP	0.00	4.00
tblVehicleTrips	PR_TP	0.00	58.00
tblVehicleTrips	ST_TR	1.59	2.00
tblVehicleTrips	ST_TR	863.10	134.50
tblVehicleTrips	ST_TR	1.32	3.00
tblVehicleTrips	ST_TR	2.37	11.01
tblVehicleTrips	ST_TR	158.37	72.30

tblVehicleTrips	ST_TR	0.00	2.70
tblVehicleTrips	SU_TR	1.59	2.00
tblVehicleTrips	SU_TR	758.45	134.50
tblVehicleTrips	SU_TR	0.68	3.00
tblVehicleTrips	SU_TR	0.98	11.01
tblVehicleTrips	SU_TR	131.84	72.30
tblVehicleTrips	SU_TR	5.95	8.19
tblVehicleTrips	SU_TR	0.00	2.70
tblVehicleTrips	WD_TR	1.59	2.00
tblVehicleTrips	WD_TR	737.99	134.50
tblVehicleTrips	WD_TR	6.97	3.00
tblVehicleTrips	WD_TR	127.15	72.30
tblVehicleTrips	WD_TR	0.00	2.70
tblWater	IndoorWaterUseRate	0.00	43,800.00
tblWoodstoves	NumberConventional	0.00	31.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	22.3838	301.8793	191.0076	0.5739	20.6045	6.3488	26.9533	10.1668	5.8398	13.0094	0.0000	58,491.3618	58,491.3618	1.4005	0.0000	58,520.7722
2016	329.2096	22.4821	15.7763	0.0240	0.2274	1.2621	1.4104	0.0603	1.1611	1.2005	0.0000	2,457.5923	2,457.5923	0.7069	0.0000	2,472.4361
Total	**351.5934**	**324.3614**	**206.7839**	**0.5979**	**20.8319**	**7.6109**	**28.3637**	**10.2271**	**7.0009**	**14.2099**	**0.0000**	**60,948.9540**	**60,948.9540**	**2.1074**	**0.0000**	**60,993.2083**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	19.2762	276.2780	184.7106	0.5739	15.7517	4.1383	19.8900	4.8503	3.8155	8.6658	0.0000	58,491.3618	58,491.3618	1.4005	0.0000	58,520.7722
2016	328.9006	11.1607	17.8863	0.0240	0.2274	0.0969	0.3243	0.0603	0.0967	0.1570	0.0000	2,457.5923	2,457.5923	0.7069	0.0000	2,472.4361
Total	**348.1767**	**287.4386**	**202.5969**	**0.5979**	**15.9791**	**4.2351**	**20.2142**	**4.9106**	**3.9122**	**8.8228**	**0.0000**	**60,948.9540**	**60,948.9540**	**2.1074**	**0.0000**	**60,993.2083**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.97**	**11.38**	**2.02**	**0.00**	**23.29**	**44.35**	**28.73**	**51.98**	**44.12**	**37.91**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	35.4731	1.4598	120.3365	0.2084		15.9410	15.9410		15.9410	15.9410	1,537.7829	0.1953	1,537.9782	15.6282	0.0000	1,866.1696
Energy	0.2209	2.0072	1.6823	0.0121		0.1526	0.1526		0.1526	0.1526		2,409.2701	2,409.2701	0.0462	0.0442	2,423.9325
Mobile	5.0597	9.5484	39.5699	0.0601	4.0882	0.1097	4.1979	1.0932	0.1006	1.1938		5,290.0307	5,290.0307	0.2634		5,295.5624
Total	**40.7536**	**13.0154**	**161.5887**	**0.2806**	**4.0882**	**16.2032**	**20.2914**	**1.0932**	**16.1942**	**17.2874**	**1,537.7829**	**7,699.4961**	**9,237.2790**	**15.9378**	**0.0442**	**9,585.6644**

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	6.5741	1.1900e-003	0.1060	1.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004	0.0000	0.1953	0.1953	2.8000e-004	0.0000	0.2013
Energy	0.1835	1.6678	1.3979	0.0100		0.1268	0.1268		0.1268	0.1268		2,001.9406	2,001.9406	0.0384	0.0367	2,014.1241
Mobile	5.0016	9.1967	38.3833	0.0574	3.8882	0.1049	3.9931	1.0397	0.0963	1.1360		5,045.9960	5,045.9960	0.2533		5,051.3156
Total	**11.7592**	**10.8657**	**39.8872**	**0.0674**	**3.8882**	**0.2323**	**4.1205**	**1.0397**	**0.2236**	**1.2633**	**0.0000**	**7,048.1319**	**7,048.1319**	**0.2920**	**0.0367**	**7,065.6410**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**71.15**	**16.52**	**75.32**	**75.99**	**4.89**	**98.57**	**79.69**	**4.89**	**98.62**	**92.69**	**100.00**	**8.46**	**23.70**	**98.17**	**16.91**	**26.29**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2015	1/14/2015	5	10	
2	Grading	Grading	1/15/2015	2/11/2015	5	20	
3	Building Construction	Building Construction	2/12/2015	12/30/2015	5	230	
4	Paving	Paving	12/31/2015	1/27/2016	5	20	
5	Architectural Coating	Architectural Coating	1/28/2016	2/24/2016	5	20	

Acres of Grading (Site Preparation Phase): 16.5

Acres of Grading (Grading Phase): 16.5

Acres of Paving: 0

Residential Indoor: 3,645; Residential Outdoor: 1,215; Non-Residential Indoor: 421,905; Non-Residential Outdoor: 140,635 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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
Site Preparation	7	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	14,375.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	117.00	46.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Replace Ground Cover

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2015

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					19.8161	0.0000	19.8161	10.1196	0.0000	10.1196			0.0000			0.0000
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412		4,111.7444	4,111.7444	1.2275		4,137.5225
Total	**5.2609**	**56.8897**	**42.6318**	**0.0391**	**19.8161**	**3.0883**	**22.9044**	**10.1196**	**2.8412**	**12.9608**		**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5225**

3.2 Site Preparation - 2015

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	0.0950	0.1322	1.3302	2.0400e-003	0.1780	1.5200e-003	0.1795	0.0472	1.3700e-003	0.0486		175.7186	175.7186	0.0110		175.9497
Total	**0.0950**	**0.1322**	**1.3302**	**2.0400e-003**	**0.1780**	**1.5200e-003**	**0.1795**	**0.0472**	**1.3700e-003**	**0.0486**		**175.7186**	**175.7186**	**0.0110**		**175.9497**

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					7.7283	0.0000	7.7283	3.9467	0.0000	3.9467			0.0000			0.0000
Off-Road	0.9515	19.4584	23.4003	0.0391		0.1442	0.1442		0.1442	0.1442	0.0000	4,111.7444	4,111.7444	1.2275		4,137.5224
Total	**0.9515**	**19.4584**	**23.4003**	**0.0391**	**7.7283**	**0.1442**	**7.8724**	**3.9467**	**0.1442**	**4.0908**	**0.0000**	**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5224**

3.2 Site Preparation - 2015

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	0.0950	0.1322	1.3302	2.0400e-003	0.1780	1.5200e-003	0.1795	0.0472	1.3700e-003	0.0486		175.7186	175.7186	0.0110		175.9497
Total	**0.0950**	**0.1322**	**1.3302**	**2.0400e-003**	**0.1780**	**1.5200e-003**	**0.1795**	**0.0472**	**1.3700e-003**	**0.0486**		**175.7186**	**175.7186**	**0.0110**		**175.9497**

3.3 Grading - 2015

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					7.9554	0.0000	7.9554	3.5650	0.0000	3.5650			0.0000			0.0000
Off-Road	3.8327	40.4161	26.6731	0.0298		2.3284	2.3284		2.1421	2.1421		3,129.0158	3,129.0158	0.9341		3,148.6328
Total	**3.8327**	**40.4161**	**26.6731**	**0.0298**	**7.9554**	**2.3284**	**10.2837**	**3.5650**	**2.1421**	**5.7070**		**3,129.0158**	**3,129.0158**	**0.9341**		**3,148.6328**

3.3 Grading - 2015

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	18.4720	261.3530	163.2259	0.5425	12.5008	4.0192	16.5200	3.4206	3.6966	7.1172		55,215.9138	55,215.9138	0.4572		55,225.5147
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	0.0792	0.1102	1.1085	1.7000e-003	0.1483	1.2700e-003	0.1496	0.0393	1.1400e-003	0.0405		146.4322	146.4322	9.1700e-003		146.6247
Total	**18.5511**	**261.4632**	**164.3344**	**0.5442**	**12.6491**	**4.0205**	**16.6696**	**3.4599**	**3.6977**	**7.1576**		**55,362.3460**	**55,362.3460**	**0.4664**		**55,372.1394**

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					3.1026	0.0000	3.1026	1.3903	0.0000	1.3903			0.0000			0.0000
Off-Road	0.7250	14.8148	20.3762	0.0298		0.1178	0.1178		0.1178	0.1178	0.0000	3,129.0158	3,129.0158	0.9341		3,148.6328
Total	**0.7250**	**14.8148**	**20.3762**	**0.0298**	**3.1026**	**0.1178**	**3.2204**	**1.3903**	**0.1178**	**1.5082**	**0.0000**	**3,129.0158**	**3,129.0158**	**0.9341**		**3,148.6328**

3.3 Grading - 2015

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	18.4720	261.3530	163.2259	0.5425	12.5008	4.0192	16.5200	3.4206	3.6966	7.1172		55,215.9138	55,215.9138	0.4572		55,225.5147
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	0.0792	0.1102	1.1085	1.7000e-003	0.1483	1.2700e-003	0.1496	0.0393	1.1400e-003	0.0405		146.4322	146.4322	9.1700e-003		146.6247
Total	**18.5511**	**261.4632**	**164.3344**	**0.5442**	**12.6491**	**4.0205**	**16.6696**	**3.4599**	**3.6977**	**7.1576**		**55,362.3460**	**55,362.3460**	**0.4664**		**55,372.1394**

3.4 Building Construction - 2015

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	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904		2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**3.6591**	**30.0299**	**18.7446**	**0.0268**		**2.1167**	**2.1167**		**1.9904**	**1.9904**		**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

3.4 Building Construction - 2015

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	0.5661	4.1833	5.5284	7.8400e-003	0.2095	0.0660	0.2754	0.0598	0.0606	0.1204		791.4489	791.4489	7.5600e-003		791.6077
Worker	0.6174	0.8595	8.6464	0.0132	1.1567	9.9000e-003	1.1666	0.3068	8.9100e-003	0.3157		1,142.1709	1,142.1709	0.0715		1,143.6728
Total	**1.1834**	**5.0429**	**14.1748**	**0.0211**	**1.3661**	**0.0759**	**1.4420**	**0.3666**	**0.0695**	**0.4361**		**1,933.6198**	**1,933.6198**	**0.0791**		**1,935.2804**

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	0.6712	14.1741	17.8156	0.0268		0.4011	0.4011		0.4011	0.4011	0.0000	2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**0.6712**	**14.1741**	**17.8156**	**0.0268**		**0.4011**	**0.4011**		**0.4011**	**0.4011**	**0.0000**	**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

3.4 Building Construction - 2015

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	0.5661	4.1833	5.5284	7.8400e-003	0.2095	0.0660	0.2754	0.0598	0.0606	0.1204		791.4489	791.4489	7.5600e-003		791.6077
Worker	0.6174	0.8595	8.6464	0.0132	1.1567	9.9000e-003	1.1666	0.3068	8.9100e-003	0.3157		1,142.1709	1,142.1709	0.0715		1,143.6728
Total	**1.1834**	**5.0429**	**14.1748**	**0.0211**	**1.3661**	**0.0759**	**1.4420**	**0.3666**	**0.0695**	**0.4361**		**1,933.6198**	**1,933.6198**	**0.0791**		**1,935.2804**

3.5 Paving - 2015

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	2.3172	25.1758	14.9781	0.0223		1.4148	1.4148		1.3016	1.3016		2,339.8984	2,339.8984	0.6986		2,354.5681
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3172**	**25.1758**	**14.9781**	**0.0223**		**1.4148**	**1.4148**		**1.3016**	**1.3016**		**2,339.8984**	**2,339.8984**	**0.6986**		**2,354.5681**

3.5 Paving - 2015

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	0.0792	0.1102	1.1085	1.7000e-003	0.1483	1.2700e-003	0.1496	0.0393	1.1400e-003	0.0405		146.4322	146.4322	9.1700e-003		146.6247
Total	**0.0792**	**0.1102**	**1.1085**	**1.7000e-003**	**0.1483**	**1.2700e-003**	**0.1496**	**0.0393**	**1.1400e-003**	**0.0405**		**146.4322**	**146.4322**	**9.1700e-003**		**146.6247**

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	0.5490	11.0645	16.9276	0.0223		0.0897	0.0897		0.0897	0.0897	0.0000	2,339.8984	2,339.8984	0.6986		2,354.5681
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5490**	**11.0645**	**16.9276**	**0.0223**		**0.0897**	**0.0897**		**0.0897**	**0.0897**	**0.0000**	**2,339.8984**	**2,339.8984**	**0.6986**		**2,354.5681**

3.5 Paving - 2015

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	0.0792	0.1102	1.1085	1.7000e-003	0.1483	1.2700e-003	0.1496	0.0393	1.1400e-003	0.0405		146.4322	146.4322	9.1700e-003		146.6247
Total	**0.0792**	**0.1102**	**1.1085**	**1.7000e-003**	**0.1483**	**1.2700e-003**	**0.1496**	**0.0393**	**1.1400e-003**	**0.0405**		**146.4322**	**146.4322**	**9.1700e-003**		**146.6247**

3.5 Paving - 2016

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	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0898**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**		**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

3.5 Paving - 2016

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	0.0677	0.0962	0.9587	1.6900e-003	0.1483	1.1600e-003	0.1495	0.0393	1.0500e-003	0.0404		141.2155	141.2155	8.1500e-003		141.3866
Total	**0.0677**	**0.0962**	**0.9587**	**1.6900e-003**	**0.1483**	**1.1600e-003**	**0.1495**	**0.0393**	**1.0500e-003**	**0.0404**		**141.2155**	**141.2155**	**8.1500e-003**		**141.3866**

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	0.5490	11.0645	16.9276	0.0223		0.0897	0.0897		0.0897	0.0897	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5490**	**11.0645**	**16.9276**	**0.0223**		**0.0897**	**0.0897**		**0.0897**	**0.0897**	**0.0000**	**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

3.5 Paving - 2016

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	0.0677	0.0962	0.9587	1.6900e-003	0.1483	1.1600e-003	0.1495	0.0393	1.0500e-003	0.0404		141.2155	141.2155	8.1500e-003		141.3866
Total	**0.0677**	**0.0962**	**0.9587**	**1.6900e-003**	**0.1483**	**1.1600e-003**	**0.1495**	**0.0393**	**1.0500e-003**	**0.0404**		**141.2155**	**141.2155**	**8.1500e-003**		**141.3866**

3.6 Architectural Coating - 2016

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	328.7374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**329.1058**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.6 Architectural Coating - 2016

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	0.1038	0.1475	1.4700	2.6000e-003	0.2274	1.7800e-003	0.2292	0.0603	1.6200e-003	0.0619		216.5305	216.5305	0.0125		216.7929
Total	**0.1038**	**0.1475**	**1.4700**	**2.6000e-003**	**0.2274**	**1.7800e-003**	**0.2292**	**0.0603**	**1.6200e-003**	**0.0619**		**216.5305**	**216.5305**	**0.0125**		**216.7929**

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	328.7374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**328.7968**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.6 Architectural Coating - 2016

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	0.1038	0.1475	1.4700	2.6000e-003	0.2274	1.7800e-003	0.2292	0.0603	1.6200e-003	0.0619		216.5305	216.5305	0.0125		216.7929
Total	**0.1038**	**0.1475**	**1.4700**	**2.6000e-003**	**0.2274**	**1.7800e-003**	**0.2292**	**0.0603**	**1.6200e-003**	**0.0619**		**216.5305**	**216.5305**	**0.0125**		**216.7929**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Walkability Design

Improve Pedestrian Network

Provide Traffic Calming Measures

	ROG	NOx	CO	SO2	Fugitive 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					
Unmitigated	5.0597	9.5484	39.5699	0.0601	4.0882	0.1097	4.1979	1.0932	0.1006	1.1938		5,290.0307	5,290.0307	0.2634		5,295.5624
Mitigated	5.0016	9.1967	38.3833	0.0574	3.8882	0.1049	3.9931	1.0397	0.0963	1.1360		5,045.9960	5,045.9960	0.2533		5,051.3156

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	2.00	2.00	2.00	4,065	3,866
Convenience Market (24 Hour)	269.00	269.00	269.00	143,788	136,753
General Light Industry	30.00	30.00	30.00	99,011	94,167
General Office Building	173.96	173.96	173.96	395,735	376,375
High Turnover (Sit Down Restaurant)	216.90	216.90	216.90	191,742	182,361
Hotel	253.27	253.89	253.89	408,375	388,396
Single Family Housing	9.57	10.08	8.77	24,217	23,033
User Defined Recreational	407.70	407.70	407.70	656,920	624,781
Total	1,362.40	1,363.53	1,362.22	1,923,852	1,829,731

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
City Park	13.00	5.00	5.00	33.00	48.00	19.00	66	28	6
Convenience Market (24 Hour)	13.00	5.00	5.00	0.90	80.10	19.00	24	15	61
General Light Industry	13.00	5.00	5.00	59.00	28.00	13.00	92	5	3
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	13.00	5.00	5.00	8.50	72.50	19.00	37	20	43
Hotel	13.00	5.00	5.00	19.40	61.60	19.00	58	38	4
Single Family Housing	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
User Defined Recreational	13.00	5.00	5.00	19.40	61.60	19.00	58	38	4

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.455937	0.042338	0.214948	0.150714	0.068093	0.009944	0.017510	0.022507	0.002330	0.001401	0.008743	0.000855	0.004680

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive 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	0.1835	1.6678	1.3979	0.0100		0.1268	0.1268		0.1268	0.1268		2,001.9406	2,001.9406	0.0384	0.0367	2,014.1241
NaturalGas Unmitigated	0.2209	2.0072	1.6823	0.0121		0.1526	0.1526		0.1526	0.1526		2,409.2701	2,409.2701	0.0462	0.0442	2,423.9325

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					
Convenience Market (24 Hour)	13.6438	1.5000e-004	1.3400e-003	1.1200e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.6052	1.6052	3.0000e-005	3.0000e-005	1.6149
General Light Industry	750.959	8.1000e-003	0.0736	0.0618	4.4000e-004		5.6000e-003	5.6000e-003		5.6000e-003	5.6000e-003		88.3481	88.3481	1.6900e-003	1.6200e-003	88.8858
General Office Building	745.414	8.0400e-003	0.0731	0.0614	4.4000e-004		5.5500e-003	5.5500e-003		5.5500e-003	5.5500e-003		87.6957	87.6957	1.6800e-003	1.6100e-003	88.2294
High Turnover (Sit Down Restaurant)	1734.58	0.0187	0.1701	0.1429	1.0200e-003		0.0129	0.0129		0.0129	0.0129		204.0677	204.0677	3.9100e-003	3.7400e-003	205.3096
Hotel	1549.83	0.0167	0.1519	0.1276	9.1000e-004		0.0116	0.0116		0.0116	0.0116		182.3328	182.3328	3.4900e-003	3.3400e-003	183.4425
Single Family Housing	96.6656	1.0400e-003	8.9100e-003	3.7900e-003	6.0000e-005		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004		11.3724	11.3724	2.2000e-004	2.1000e-004	11.4416
User Defined Recreational	15587.7	0.1681	1.5282	1.2837	9.1700e-003		0.1161	0.1161		0.1161	0.1161		1,833.8481	1,833.8481	0.0352	0.0336	1,845.0086
City Park	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
Total		**0.2209**	**2.0072**	**1.6823**	**0.0121**		**0.1526**	**0.1526**		**0.1526**	**0.1526**		**2,409.2701**	**2,409.2701**	**0.0462**	**0.0442**	**2,423.9325**

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					
Convenience Market (24 Hour)	0.0109151	1.2000e-004	1.0700e-003	9.0000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		1.2841	1.2841	2.0000e-005	2.0000e-005	1.2919
General Light Industry	0.637315	6.8700e-003	0.0625	0.0525	3.7000e-004		4.7500e-003	4.7500e-003		4.7500e-003	4.7500e-003		74.9782	74.9782	1.4400e-003	1.3700e-003	75.4346
General Office Building	0.59685	6.4400e-003	0.0585	0.0492	3.5000e-004		4.4500e-003	4.4500e-003		4.4500e-003	4.4500e-003		70.2177	70.2177	1.3500e-003	1.2900e-003	70.6450
High Turnover (Sit Down Restaurant)	1.63008	0.0176	0.1598	0.1342	9.6000e-004		0.0122	0.0122		0.0122	0.0122		191.7737	191.7737	3.6800e-003	3.5200e-003	192.9408
Hotel	1.27161	0.0137	0.1247	0.1047	7.5000e-004		9.4700e-003	9.4700e-003		9.4700e-003	9.4700e-003		149.6010	149.6010	2.8700e-003	2.7400e-003	150.5114
Single Family Housing	0.0805527	8.7000e-004	7.4200e-003	3.1600e-003	5.0000e-005		6.0000e-004	6.0000e-004		6.0000e-004	6.0000e-004		9.4768	9.4768	1.8000e-004	1.7000e-004	9.5345
User Defined Recreational	12.7892	0.1379	1.2538	1.0532	7.5200e-003		0.0953	0.0953		0.0953	0.0953		1,504.6090	1,504.6090	0.0288	0.0276	1,513.7658
City Park	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
Total		**0.1835**	**1.6678**	**1.3979**	**0.0100**		**0.1268**	**0.1268**		**0.1268**	**0.1268**		**2,001.9406**	**2,001.9406**	**0.0384**	**0.0367**	**2,014.1240**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive 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					
Unmitigated	35.4731	1.4598	120.3365	0.2084		15.9410	15.9410		15.9410	15.9410	1,537.7829	0.1953	1,537.9782	15.6282	0.0000	1,866.1696
Mitigated	6.5741	1.1900e-003	0.1060	1.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004	0.0000	0.1953	0.1953	2.8000e-004	0.0000	0.2013

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	1.8013					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0577					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	27.6093	1.4586	120.2305	0.2084		15.9404	15.9404		15.9404	15.9404	1,537.7829	0.0000	1,537.7829	15.6279	0.0000	1,865.9683
Landscaping	4.8200e-003	1.1900e-003	0.1060	1.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004		0.1953	0.1953	2.8000e-004		0.2013
Total	**35.4731**	**1.4598**	**120.3365**	**0.2084**		**15.9410**	**15.9410**		**15.9410**	**15.9410**	**1,537.7829**	**0.1953**	**1,537.9782**	**15.6282**	**0.0000**	**1,866.1696**

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	0.5116					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0577					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	4.8200e-003	1.1900e-003	0.1060	1.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004		0.1953	0.1953	2.8000e-004		0.2013
Total	**6.5741**	**1.1900e-003**	**0.1060**	**1.0000e-005**		**5.3000e-004**	**5.3000e-004**		**5.3000e-004**	**5.3000e-004**	**0.0000**	**0.1953**	**0.1953**	**2.8000e-004**	**0.0000**	**0.2013**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Vegetation

Port San Luis Harbor Terrace

San Luis Obispo County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	15.80	1000sqft	0.36	15,800.00	0
General Light Industry	10.00	1000sqft	0.23	10,000.00	0
City Park	1.00	Acre	1.00	43,560.00	0
High Turnover (Sit Down Restaurant)	3.00	1000sqft	0.07	3,000.00	0
Hotel	31.00	Room	0.28	12,196.80	0
User Defined Recreational	151.00	User Defined Unit	4.47	194,713.00	0
Single Family Housing	1.00	Dwelling Unit	0.32	1,800.00	3
Convenience Market (24 Hour)	2.00	1000sqft	0.05	2,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2016
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 - Area for hotel units and user defined recreational based on site plan.

Demolition -

Grading - Acres disturbed based on limits of grading identified in Preliminary Grading Plan (2014).

Vehicle Trips - Trip generation based on Transportation Impact Study (CCTC 2014). User defined recreation (campsites) trip rates and % - applied same default rates as hotel use.

Woodstoves - Assume worst-case scenario: conventional woodstoves in hotel/motel units (31).

Energy Use - RV sites estimated to use similar energy use as hotel use. Approximately 63% of the user defined recreationa use (campsites) are RV spots.

Water And Wastewater - Water use per campsite is conservatively estimated at 120 gallons per campsite, per day.

Solid Waste - Solid waste generation for user defined recreational (RV and campsites) is estimated to be similar to hotel uses.

Construction Off-road Equipment Mitigation - Assume Tier 2 engines and Level 3 diesel particulate filters on noted equipment.

Mobile Land Use Mitigation -

Area Mitigation - Use of low VOC architectual coatings, per Green Standard.

Water Mitigation -

Waste Mitigation -

Architectural Coating -

Area Coating - Use of low VOC architectural coatings per Green Standards, as proposed by the project.

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	71
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	71
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	71
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	71
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	LightingElect	0.00	1.71
tblEnergyUse	NT24E	0.00	2.03
tblEnergyUse	NT24NG	0.00	2.99
tblEnergyUse	T24E	0.00	1.58
tblEnergyUse	T24NG	0.00	26.23
tblGrading	AcresOfGrading	10.00	16.50
tblGrading	AcresOfGrading	0.00	16.50
tblGrading	MaterialExported	0.00	72,000.00
tblGrading	MaterialImported	0.00	43,000.00
tblLandUse	LandUseSquareFeet	45,012.00	12,196.80
tblLandUse	LandUseSquareFeet	0.00	194,713.00
tblLandUse	LotAcreage	1.03	0.28
tblLandUse	LotAcreage	0.00	4.47
tblProjectCharacteristics	OperationalYear	2014	2016
tblSolidWaste	SolidWasteGenerationRate	0.00	16.97
tblTripsAndVMT	HaulingTripNumber	9,000.00	14,375.00
tblVehicleTrips	CC_TTP	0.00	61.60
tblVehicleTrips	CNW_TTP	0.00	19.00
tblVehicleTrips	CW_TTP	0.00	19.40
tblVehicleTrips	DV_TP	0.00	38.00
tblVehicleTrips	PB_TP	0.00	4.00
tblVehicleTrips	PR_TP	0.00	58.00
tblVehicleTrips	ST_TR	1.59	2.00
tblVehicleTrips	ST_TR	863.10	134.50
tblVehicleTrips	ST_TR	1.32	3.00
tblVehicleTrips	ST_TR	2.37	11.01
tblVehicleTrips	ST_TR	158.37	72.30

tblVehicleTrips	ST_TR	0.00	2.70
tblVehicleTrips	SU_TR	1.59	2.00
tblVehicleTrips	SU_TR	758.45	134.50
tblVehicleTrips	SU_TR	0.68	3.00
tblVehicleTrips	SU_TR	0.98	11.01
tblVehicleTrips	SU_TR	131.84	72.30
tblVehicleTrips	SU_TR	5.95	8.19
tblVehicleTrips	SU_TR	0.00	2.70
tblVehicleTrips	WD_TR	1.59	2.00
tblVehicleTrips	WD_TR	737.99	134.50
tblVehicleTrips	WD_TR	6.97	3.00
tblVehicleTrips	WD_TR	127.15	72.30
tblVehicleTrips	WD_TR	0.00	2.70
tblWater	IndoorWaterUseRate	0.00	43,800.00
tblWoodstoves	NumberConventional	0.00	31.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.8345	7.4575	6.4521	0.0114	0.4563	0.3319	0.7882	0.1616	0.3103	0.4718	0.0000	1,027.9876	1,027.9876	0.0973	0.0000	1,030.0314
2016	3.3126	0.2391	0.1833	2.8000e-004	3.5900e-003	0.0140	0.0176	9.5000e-004	0.0130	0.0140	0.0000	25.5748	25.5748	6.5100e-003	0.0000	25.7114
Total	**4.1471**	**7.6965**	**6.6354**	**0.0117**	**0.4599**	**0.3459**	**0.8058**	**0.1625**	**0.3233**	**0.4858**	**0.0000**	**1,053.5623**	**1,053.5623**	**0.1038**	**0.0000**	**1,055.7428**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.4374	5.1838	6.1872	0.0114	0.3473	0.0971	0.4444	0.1089	0.0932	0.2021	0.0000	1,027.9872	1,027.9872	0.0973	0.0000	1,030.0310
2016	3.2949	0.1213	0.2028	2.8000e-004	3.5900e-003	1.8300e-003	5.4200e-003	9.5000e-004	1.8300e-003	2.7800e-003	0.0000	25.5747	25.5747	6.5100e-003	0.0000	25.7114
Total	**3.7323**	**5.3051**	**6.3900**	**0.0117**	**0.3509**	**0.0990**	**0.4499**	**0.1099**	**0.0950**	**0.2049**	**0.0000**	**1,053.5619**	**1,053.5619**	**0.1038**	**0.0000**	**1,055.7424**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**10.00**	**31.07**	**3.70**	**0.00**	**23.70**	**71.39**	**44.17**	**32.38**	**70.61**	**57.82**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	2.2633	0.0440	3.6244	6.2500e-003		0.4783	0.4783		0.4783	0.4783	41.8516	0.0292	41.8808	0.4254	0.0000	50.8135
Energy	0.0403	0.3663	0.3070	2.2000e-003		0.0279	0.0279		0.0279	0.0279	0.0000	885.8253	885.8253	0.0297	0.0119	890.1274
Mobile	0.9451	1.8319	7.9158	0.0106	0.7241	0.0200	0.7441	0.1940	0.0184	0.2124	0.0000	847.6529	847.6529	0.0434	0.0000	848.5646
Waste						0.0000	0.0000		0.0000	0.0000	21.1232	0.0000	21.1232	1.2484	0.0000	47.3385
Water						0.0000	0.0000		0.0000	0.0000	2.2445	14.3846	16.6291	0.2312	5.5800e-003	23.2130
Total	**3.2488**	**2.2421**	**11.8473**	**0.0191**	**0.7241**	**0.5262**	**1.2502**	**0.1940**	**0.5245**	**0.7186**	**65.2193**	**1,747.8920**	**1,813.1113**	**1.9780**	**0.0175**	**1,860.0571**

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	1.1997	2.0000e-004	0.0175	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	0.0292	0.0292	4.0000e-005	0.0000	0.0301
Energy	0.0335	0.3044	0.2551	1.8300e-003		0.0231	0.0231		0.0231	0.0231	0.0000	765.9752	765.9752	0.0260	0.0101	769.6651
Mobile	0.9345	1.7640	7.7074	0.0101	0.6887	0.0191	0.7078	0.1846	0.0176	0.2021	0.0000	808.5808	808.5808	0.0418	0.0000	809.4577
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	1.9078	11.5987	13.5065	0.1965	4.7400e-003	19.1004
Total	**2.1677**	**2.0686**	**7.9800**	**0.0120**	**0.6887**	**0.0424**	**0.7310**	**0.1846**	**0.0408**	**0.2253**	**1.9078**	**1,586.1840**	**1,588.0918**	**0.2643**	**0.0149**	**1,598.2534**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**33.28**	**7.74**	**32.64**	**37.28**	**4.89**	**91.95**	**41.53**	**4.89**	**92.22**	**68.64**	**97.07**	**9.25**	**12.41**	**86.64**	**14.73**	**14.08**

2.3 Vegetation

Vegetation

	CO2e
Category	MT
Vegetation Land Change	0.0000
Total	**0.0000**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2015	1/14/2015	5	10	
2	Grading	Grading	1/15/2015	2/11/2015	5	20	
3	Building Construction	Building Construction	2/12/2015	12/30/2015	5	230	
4	Paving	Paving	12/31/2015	1/27/2016	5	20	
5	Architectural Coating	Architectural Coating	1/28/2016	2/24/2016	5	20	

Acres of Grading (Site Preparation Phase): 16.5

Acres of Grading (Grading Phase): 16.5

Acres of Paving: 0

Residential Indoor: 3,645; Residential Outdoor: 1,215; Non-Residential Indoor: 421,905; Non-Residential Outdoor: 140,635 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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
Site Preparation	7	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	14,375.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	117.00	46.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Replace Ground Cover

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2015

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					0.0991	0.0000	0.0991	0.0506	0.0000	0.0506	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0263	0.2845	0.2132	2.0000e-004		0.0154	0.0154		0.0142	0.0142	0.0000	18.6506	18.6506	5.5700e-003	0.0000	18.7675
Total	**0.0263**	**0.2845**	**0.2132**	**2.0000e-004**	**0.0991**	**0.0154**	**0.1145**	**0.0506**	**0.0142**	**0.0648**	**0.0000**	**18.6506**	**18.6506**	**5.5700e-003**	**0.0000**	**18.7675**

3.2 Site Preparation - 2015

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	4.8000e-004	7.4000e-004	6.6600e-003	1.0000e-005	8.7000e-004	1.0000e-005	8.7000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7663	0.7663	5.0000e-005	0.0000	0.7674
Total	**4.8000e-004**	**7.4000e-004**	**6.6600e-003**	**1.0000e-005**	**8.7000e-004**	**1.0000e-005**	**8.7000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7663**	**0.7663**	**5.0000e-005**	**0.0000**	**0.7674**

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					0.0386	0.0000	0.0386	0.0197	0.0000	0.0197	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.7600e-003	0.0973	0.1170	2.0000e-004		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004	0.0000	18.6505	18.6505	5.5700e-003	0.0000	18.7675
Total	**4.7600e-003**	**0.0973**	**0.1170**	**2.0000e-004**	**0.0386**	**7.2000e-004**	**0.0394**	**0.0197**	**7.2000e-004**	**0.0205**	**0.0000**	**18.6505**	**18.6505**	**5.5700e-003**	**0.0000**	**18.7675**

3.2 Site Preparation - 2015

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	4.8000e-004	7.4000e-004	6.6600e-003	1.0000e-005	8.7000e-004	1.0000e-005	8.7000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7663	0.7663	5.0000e-005	0.0000	0.7674
Total	**4.8000e-004**	**7.4000e-004**	**6.6600e-003**	**1.0000e-005**	**8.7000e-004**	**1.0000e-005**	**8.7000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7663**	**0.7663**	**5.0000e-005**	**0.0000**	**0.7674**

3.3 Grading - 2015

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					0.0796	0.0000	0.0796	0.0357	0.0000	0.0357	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0383	0.4042	0.2667	3.0000e-004		0.0233	0.0233		0.0214	0.0214	0.0000	28.3860	28.3860	8.4700e-003	0.0000	28.5639
Total	**0.0383**	**0.4042**	**0.2667**	**3.0000e-004**	**0.0796**	**0.0233**	**0.1028**	**0.0357**	**0.0214**	**0.0571**	**0.0000**	**28.3860**	**28.3860**	**8.4700e-003**	**0.0000**	**28.5639**

3.3 Grading - 2015

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	0.2012	2.6969	1.9877	5.4300e-003	0.1221	0.0403	0.1624	0.0335	0.0370	0.0705	0.0000	500.4234	500.4234	4.1700e-003	0.0000	500.5109
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	8.0000e-004	1.2300e-003	0.0111	2.0000e-005	1.4400e-003	1.0000e-005	1.4600e-003	3.8000e-004	1.0000e-005	4.0000e-004	0.0000	1.2772	1.2772	8.0000e-005	0.0000	1.2790
Total	**0.2020**	**2.6982**	**1.9988**	**5.4500e-003**	**0.1236**	**0.0403**	**0.1639**	**0.0339**	**0.0371**	**0.0709**	**0.0000**	**501.7006**	**501.7006**	**4.2500e-003**	**0.0000**	**501.7899**

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					0.0310	0.0000	0.0310	0.0139	0.0000	0.0139	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.2500e-003	0.1482	0.2038	3.0000e-004		1.1800e-003	1.1800e-003		1.1800e-003	1.1800e-003	0.0000	28.3859	28.3859	8.4700e-003	0.0000	28.5639
Total	**7.2500e-003**	**0.1482**	**0.2038**	**3.0000e-004**	**0.0310**	**1.1800e-003**	**0.0322**	**0.0139**	**1.1800e-003**	**0.0151**	**0.0000**	**28.3859**	**28.3859**	**8.4700e-003**	**0.0000**	**28.5639**

3.3 Grading - 2015

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	0.2012	2.6969	1.9877	5.4300e-003	0.1221	0.0403	0.1624	0.0335	0.0370	0.0705	0.0000	500.4234	500.4234	4.1700e-003	0.0000	500.5109
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	8.0000e-004	1.2300e-003	0.0111	2.0000e-005	1.4400e-003	1.0000e-005	1.4600e-003	3.8000e-004	1.0000e-005	4.0000e-004	0.0000	1.2772	1.2772	8.0000e-005	0.0000	1.2790
Total	**0.2020**	**2.6982**	**1.9988**	**5.4500e-003**	**0.1236**	**0.0403**	**0.1639**	**0.0339**	**0.0371**	**0.0709**	**0.0000**	**501.7006**	**501.7006**	**4.2500e-003**	**0.0000**	**501.7899**

3.4 Building Construction - 2015

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	0.4208	3.4534	2.1556	3.0800e-003		0.2434	0.2434		0.2289	0.2289	0.0000	280.5935	280.5935	0.0704	0.0000	282.0719
Total	**0.4208**	**3.4534**	**2.1556**	**3.0800e-003**		**0.2434**	**0.2434**		**0.2289**	**0.2289**	**0.0000**	**280.5935**	**280.5935**	**0.0704**	**0.0000**	**282.0719**

3.4 Building Construction - 2015

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	0.0735	0.4938	0.8080	9.0000e-004	0.0236	7.6500e-003	0.0312	6.7500e-003	7.0300e-003	0.0138	0.0000	82.1994	82.1994	8.0000e-004	0.0000	82.2162
Worker	0.0719	0.1101	0.9952	1.4600e-003	0.1295	1.1400e-003	0.1307	0.0344	1.0200e-003	0.0355	0.0000	114.5661	114.5661	7.4600e-003	0.0000	114.7227
Total	**0.1454**	**0.6039**	**1.8031**	**2.3600e-003**	**0.1531**	**8.7900e-003**	**0.1619**	**0.0412**	**8.0500e-003**	**0.0492**	**0.0000**	**196.7655**	**196.7655**	**8.2600e-003**	**0.0000**	**196.9389**

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	0.0772	1.6300	2.0488	3.0800e-003		0.0461	0.0461		0.0461	0.0461	0.0000	280.5932	280.5932	0.0704	0.0000	282.0716
Total	**0.0772**	**1.6300**	**2.0488**	**3.0800e-003**		**0.0461**	**0.0461**		**0.0461**	**0.0461**	**0.0000**	**280.5932**	**280.5932**	**0.0704**	**0.0000**	**282.0716**

3.4 Building Construction - 2015

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	0.0735	0.4938	0.8080	9.0000e-004	0.0236	7.6500e-003	0.0312	6.7500e-003	7.0300e-003	0.0138	0.0000	82.1994	82.1994	8.0000e-004	0.0000	82.2162
Worker	0.0719	0.1101	0.9952	1.4600e-003	0.1295	1.1400e-003	0.1307	0.0344	1.0200e-003	0.0355	0.0000	114.5661	114.5661	7.4600e-003	0.0000	114.7227
Total	**0.1454**	**0.6039**	**1.8031**	**2.3600e-003**	**0.1531**	**8.7900e-003**	**0.1619**	**0.0412**	**8.0500e-003**	**0.0492**	**0.0000**	**196.7655**	**196.7655**	**8.2600e-003**	**0.0000**	**196.9389**

3.5 Paving - 2015

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	1.1600e-003	0.0126	7.4900e-003	1.0000e-005		7.1000e-004	7.1000e-004		6.5000e-004	6.5000e-004	0.0000	1.0614	1.0614	3.2000e-004	0.0000	1.0680
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.1600e-003**	**0.0126**	**7.4900e-003**	**1.0000e-005**		**7.1000e-004**	**7.1000e-004**		**6.5000e-004**	**6.5000e-004**	**0.0000**	**1.0614**	**1.0614**	**3.2000e-004**	**0.0000**	**1.0680**

3.5 Paving - 2015

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	6.0000e-005	5.5000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0639	0.0639	0.0000	0.0000	0.0640
Total	**4.0000e-005**	**6.0000e-005**	**5.5000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0639**	**0.0639**	**0.0000**	**0.0000**	**0.0640**

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	2.7000e-004	5.5300e-003	8.4600e-003	1.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	1.0614	1.0614	3.2000e-004	0.0000	1.0680
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.7000e-004**	**5.5300e-003**	**8.4600e-003**	**1.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**1.0614**	**1.0614**	**3.2000e-004**	**0.0000**	**1.0680**

3.5 Paving - 2015

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	6.0000e-005	5.5000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0639	0.0639	0.0000	0.0000	0.0640
Total	**4.0000e-005**	**6.0000e-005**	**5.5000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0639**	**0.0639**	**0.0000**	**0.0000**	**0.0640**

3.5 Paving - 2016

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	0.0199	0.2127	0.1408	2.1000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	19.9631	19.9631	6.0200e-003	0.0000	20.0896
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0199**	**0.2127**	**0.1408**	**2.1000e-004**		**0.0120**	**0.0120**		**0.0110**	**0.0110**	**0.0000**	**19.9631**	**19.9631**	**6.0200e-003**	**0.0000**	**20.0896**

3.5 Paving - 2016

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	6.5000e-004	1.0200e-003	9.0700e-003	2.0000e-005	1.3700e-003	1.0000e-005	1.3800e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.1700	1.1700	7.0000e-005	0.0000	1.1715
Total	**6.5000e-004**	**1.0200e-003**	**9.0700e-003**	**2.0000e-005**	**1.3700e-003**	**1.0000e-005**	**1.3800e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.1700**	**1.1700**	**7.0000e-005**	**0.0000**	**1.1715**

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	5.2200e-003	0.1051	0.1608	2.1000e-004		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	19.9631	19.9631	6.0200e-003	0.0000	20.0896
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.2200e-003**	**0.1051**	**0.1608**	**2.1000e-004**		**8.5000e-004**	**8.5000e-004**		**8.5000e-004**	**8.5000e-004**	**0.0000**	**19.9631**	**19.9631**	**6.0200e-003**	**0.0000**	**20.0896**

3.5 Paving - 2016

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	6.5000e-004	1.0200e-003	9.0700e-003	2.0000e-005	1.3700e-003	1.0000e-005	1.3800e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.1700	1.1700	7.0000e-005	0.0000	1.1715
Total	**6.5000e-004**	**1.0200e-003**	**9.0700e-003**	**2.0000e-005**	**1.3700e-003**	**1.0000e-005**	**1.3800e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.1700**	**1.1700**	**7.0000e-005**	**0.0000**	**1.1715**

3.6 Architectural Coating - 2016

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	3.2874					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6800e-003	0.0237	0.0188	3.0000e-005		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	2.5533	2.5533	3.0000e-004	0.0000	2.5596
Total	**3.2911**	**0.0237**	**0.0188**	**3.0000e-005**		**1.9700e-003**	**1.9700e-003**		**1.9700e-003**	**1.9700e-003**	**0.0000**	**2.5533**	**2.5533**	**3.0000e-004**	**0.0000**	**2.5596**

3.6 Architectural Coating - 2016

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	1.0500e-003	1.6400e-003	0.0146	2.0000e-005	2.2100e-003	2.0000e-005	2.2300e-003	5.9000e-004	2.0000e-005	6.0000e-004	0.0000	1.8884	1.8884	1.1000e-004	0.0000	1.8908
Total	**1.0500e-003**	**1.6400e-003**	**0.0146**	**2.0000e-005**	**2.2100e-003**	**2.0000e-005**	**2.2300e-003**	**5.9000e-004**	**2.0000e-005**	**6.0000e-004**	**0.0000**	**1.8884**	**1.8884**	**1.1000e-004**	**0.0000**	**1.8908**

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	3.2874					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9000e-004	0.0136	0.0183	3.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	2.5533	2.5533	3.0000e-004	0.0000	2.5596
Total	**3.2880**	**0.0136**	**0.0183**	**3.0000e-005**		**9.5000e-004**	**9.5000e-004**		**9.5000e-004**	**9.5000e-004**	**0.0000**	**2.5533**	**2.5533**	**3.0000e-004**	**0.0000**	**2.5596**

3.6 Architectural Coating - 2016

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	1.0500e-003	1.6400e-003	0.0146	2.0000e-005	2.2100e-003	2.0000e-005	2.2300e-003	5.9000e-004	2.0000e-005	6.0000e-004	0.0000	1.8884	1.8884	1.1000e-004	0.0000	1.8908
Total	**1.0500e-003**	**1.6400e-003**	**0.0146**	**2.0000e-005**	**2.2100e-003**	**2.0000e-005**	**2.2300e-003**	**5.9000e-004**	**2.0000e-005**	**6.0000e-004**	**0.0000**	**1.8884**	**1.8884**	**1.1000e-004**	**0.0000**	**1.8908**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Walkability Design

Improve Pedestrian Network

Provide Traffic Calming Measures

	ROG	NOx	CO	SO2	Fugitive 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					
Unmitigated	0.9451	1.8319	7.9158	0.0106	0.7241	0.0200	0.7441	0.1940	0.0184	0.2124	0.0000	847.6529	847.6529	0.0434	0.0000	848.5646
Mitigated	0.9345	1.7640	7.7074	0.0101	0.6887	0.0191	0.7078	0.1846	0.0176	0.2021	0.0000	808.5808	808.5808	0.0418	0.0000	809.4577

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	2.00	2.00	2.00	4,065	3,866
Convenience Market (24 Hour)	269.00	269.00	269.00	143,788	136,753
General Light Industry	30.00	30.00	30.00	99,011	94,167
General Office Building	173.96	173.96	173.96	395,735	376,375
High Turnover (Sit Down Restaurant)	216.90	216.90	216.90	191,742	182,361
Hotel	253.27	253.89	253.89	408,375	388,396
Single Family Housing	9.57	10.08	8.77	24,217	23,033
User Defined Recreational	407.70	407.70	407.70	656,920	624,781
Total	1,362.40	1,363.53	1,362.22	1,923,852	1,829,731

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
City Park	13.00	5.00	5.00	33.00	48.00	19.00	66	28	6
Convenience Market (24 Hour)	13.00	5.00	5.00	0.90	80.10	19.00	24	15	61
General Light Industry	13.00	5.00	5.00	59.00	28.00	13.00	92	5	3
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	13.00	5.00	5.00	8.50	72.50	19.00	37	20	43
Hotel	13.00	5.00	5.00	19.40	61.60	19.00	58	38	4
Single Family Housing	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
User Defined Recreational	13.00	5.00	5.00	19.40	61.60	19.00	58	38	4

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.455937	0.042338	0.214948	0.150714	0.068093	0.009944	0.017510	0.022507	0.002330	0.001401	0.008743	0.000855	0.004680

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive 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					
NaturalGas Mitigated	0.0335	0.3044	0.2551	1.8300e-003		0.0231	0.0231		0.0231	0.0231	0.0000	331.4437	331.4437	6.3500e-003	6.0800e-003	333.4608
NaturalGas Unmitigated	0.0403	0.3663	0.3070	2.2000e-003		0.0279	0.0279		0.0279	0.0279	0.0000	398.8817	398.8817	7.6500e-003	7.3100e-003	401.3092
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	434.5315	434.5315	0.0197	4.0700e-003	436.2043
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	486.9436	486.9436	0.0220	4.5600e-003	488.8182

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					
City Park	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
Convenience Market (24 Hour)	4980	3.0000e-005	2.4000e-004	2.1000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2658	0.2658	1.0000e-005	0.0000	0.2674
General Light Industry	274100	1.4800e-003	0.0134	0.0113	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	14.6270	14.6270	2.8000e-004	2.7000e-004	14.7160
General Office Building	272076	1.4700e-003	0.0133	0.0112	8.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.0000	14.5190	14.5190	2.8000e-004	2.7000e-004	14.6074
High Turnover (Sit Down Restaurant)	633120	3.4100e-003	0.0310	0.0261	1.9000e-004		2.3600e-003	2.3600e-003		2.3600e-003	2.3600e-003	0.0000	33.7857	33.7857	6.5000e-004	6.2000e-004	33.9913
Hotel	565688	3.0500e-003	0.0277	0.0233	1.7000e-004		2.1100e-003	2.1100e-003		2.1100e-003	2.1100e-003	0.0000	30.1872	30.1872	5.8000e-004	5.5000e-004	30.3710
Single Family Housing	35283	1.9000e-004	1.6300e-003	6.9000e-004	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8828	1.8828	4.0000e-005	3.0000e-005	1.8943
User Defined Recreational	5.68951e+006	0.0307	0.2789	0.2343	1.6700e-003		0.0212	0.0212		0.0212	0.0212	0.0000	303.6141	303.6141	5.8200e-003	5.5700e-003	305.4619
Total		**0.0403**	**0.3663**	**0.3070**	**2.2000e-003**		**0.0279**	**0.0279**		**0.0279**	**0.0279**	**0.0000**	**398.8817**	**398.8817**	**7.6600e-003**	**7.3100e-003**	**401.3092**

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	tons/yr										MT/yr					
Convenience Market (24 Hour)	3984	2.0000e-005	2.0000e-004	1.6000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.2126	0.2126	0.0000	0.0000	0.2139
General Light Industry	232620	1.2500e-003	0.0114	9.5800e-003	7.0000e-005		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004	0.0000	12.4135	12.4135	2.4000e-004	2.3000e-004	12.4890
General Office Building	217850	1.1700e-003	0.0107	8.9700e-003	6.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	11.6253	11.6253	2.2000e-004	2.1000e-004	11.6961
High Turnover (Sit Down Restaurant)	594978	3.2100e-003	0.0292	0.0245	1.7000e-004		2.2200e-003	2.2200e-003		2.2200e-003	2.2200e-003	0.0000	31.7503	31.7503	6.1000e-004	5.8000e-004	31.9435
Hotel	464137	2.5000e-003	0.0228	0.0191	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003	0.0000	24.7681	24.7681	4.7000e-004	4.5000e-004	24.9189
Single Family Housing	29401.7	1.6000e-004	1.3500e-003	5.8000e-004	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5690	1.5690	3.0000e-005	3.0000e-005	1.5785
User Defined Recreational	4.66805e+006	0.0252	0.2288	0.1922	1.3700e-003		0.0174	0.0174		0.0174	0.0174	0.0000	249.1049	249.1049	4.7700e-003	4.5700e-003	250.6209
City Park	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
Total		**0.0335**	**0.3044**	**0.2551**	**1.8200e-003**		**0.0231**	**0.0231**		**0.0231**	**0.0231**	**0.0000**	**331.4437**	**331.4437**	**6.3400e-003**	**6.0700e-003**	**333.4608**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Convenience Market (24 Hour)	23380	6.8015	3.1000e-004	6.0000e-005	6.8277
General Light Industry	90300	26.2693	1.1900e-003	2.5000e-004	26.3704
General Office Building	311418	90.5951	4.1000e-003	8.5000e-004	90.9438
High Turnover (Sit Down Restaurant)	102870	29.9261	1.3500e-003	2.8000e-004	30.0413
Hotel	102941	29.9467	1.3500e-003	2.8000e-004	30.0620
Single Family Housing	7072.94	2.0576	9.0000e-005	2.0000e-005	2.0655
User Defined Recreational	1.03587e+006	301.3474	0.0136	2.8200e-003	302.5075
Total		**486.9436**	**0.0220**	**4.5600e-003**	**488.8182**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Convenience Market (24 Hour)	20227.2	5.8843	2.7000e-004	6.0000e-005	5.9070
General Light Industry	81048	23.5778	1.0700e-003	2.2000e-004	23.6686
General Office Building	276696	80.4940	3.6400e-003	7.5000e-004	80.8039
High Turnover (Sit Down Restaurant)	96372	28.0357	1.2700e-003	2.6000e-004	28.1437
Hotel	91534.5	26.6285	1.2000e-003	2.5000e-004	26.7310
Single Family Housing	6741.8	1.9613	9.0000e-005	2.0000e-005	1.9688
User Defined Recreational	921070	267.9499	0.0121	2.5100e-003	268.9815
Total		**434.5315**	**0.0197**	**4.0700e-003**	**436.2043**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive 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	1.1997	2.0000e-004	0.0175	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	0.0292	0.0292	4.0000e-005	0.0000	0.0301
Unmitigated	2.2633	0.0440	3.6244	6.2500e-003		0.4783	0.4783		0.4783	0.4783	41.8516	0.0292	41.8808	0.4254	0.0000	50.8135

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	0.3287					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.1055					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.8283	0.0438	3.6069	6.2500e-003		0.4782	0.4782		0.4782	0.4782	41.8516	0.0000	41.8516	0.4253	0.0000	50.7833
Landscaping	7.9000e-004	2.0000e-004	0.0175	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	0.0292	0.0292	4.0000e-005	0.0000	0.0301
Total	**2.2633**	**0.0440**	**3.6244**	**6.2500e-003**		**0.4783**	**0.4783**		**0.4783**	**0.4783**	**41.8516**	**0.0292**	**41.8808**	**0.4254**	**0.0000**	**50.8135**

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	0.0934					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.1055					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	7.9000e-004	2.0000e-004	0.0175	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	0.0292	0.0292	4.0000e-005	0.0000	0.0301
Total	**1.1997**	**2.0000e-004**	**0.0175**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**	**0.0000**	**0.0292**	**0.0292**	**4.0000e-005**	**0.0000**	**0.0301**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	16.6291	0.2312	5.5800e-003	23.2130
Mitigated	13.5065	0.1965	4.7400e-003	19.1004

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.19148	1.2132	5.0000e-005	1.0000e-005	1.2178
Convenience Market (24 Hour)	0.148145 / 0.0907986	0.3727	4.8400e-003	1.2000e-004	0.5106
General Light Industry	2.3125 / 0	4.3738	0.0755	1.8100e-003	6.5218
General Office Building	2.80819 / 1.72115	7.0638	0.0918	2.2200e-003	9.6790
High Turnover (Sit Down Restaurant)	0.910601 / 0.0581235	1.7815	0.0297	7.1000e-004	2.6275
Hotel	0.78637 / 0.0873744	1.5763	0.0257	6.2000e-004	2.3071
Single Family Housing	0.065154 / 0.0410754	0.1651	2.1300e-003	5.0000e-005	0.2257
User Defined Recreational	0.0438 / 0	0.0828	1.4300e-003	3.0000e-005	0.1235
Total		**16.6291**	**0.2312**	**5.5700e-003**	**23.2130**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.07233	1.0918	5.0000e-005	1.0000e-005	1.0960
Convenience Market (24 Hour)	0.125923 / 0.0817187	0.3048	4.1200e-003	1.0000e-004	0.4220
General Light Industry	1.96563 / 0	3.4593	0.0642	1.5400e-003	5.2841
General Office Building	2.38696 / 1.54904	5.7780	0.0780	1.8800e-003	8.0001
High Turnover (Sit Down Restaurant)	0.774011 / 0.0523111	1.4155	0.0253	6.1000e-004	2.1342
Hotel	0.668414 / 0.078637	1.2564	0.0218	5.2000e-004	1.8772
Single Family Housing	0.0553809 / 0.0369678	0.1351	1.8100e-003	4.0000e-005	0.1867
User Defined Recreational	0.03723 / 0	0.0655	1.2200e-003	3.0000e-005	0.1001
Total		**13.5065**	**0.1965**	**4.7300e-003**	**19.1004**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	21.1232	1.2484	0.0000	47.3385

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.09	0.0183	1.0800e-003	0.0000	0.0409
Convenience Market (24 Hour)	6.01	1.2200	0.0721	0.0000	2.7340
General Light Industry	12.4	2.5171	0.1488	0.0000	5.6410
General Office Building	14.69	2.9819	0.1762	0.0000	6.6827
High Turnover (Sit Down Restaurant)	35.7	7.2468	0.4283	0.0000	16.2405
Hotel	16.97	3.4448	0.2036	0.0000	7.7199
Single Family Housing	1.23	0.2497	0.0148	0.0000	0.5596
User Defined Recreational	16.97	3.4448	0.2036	0.0000	7.7199
Total		**21.1233**	**1.2484**	**0.0000**	**47.3385**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park		0.0000	0.0000	0.0000	0.0000
Convenience Market (24 Hour)		0.0000	0.0000	0.0000	0.0000
General Light Industry		0.0000	0.0000	0.0000	0.0000
General Office Building		0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)		0.0000	0.0000	0.0000	0.0000
Hotel		0.0000	0.0000	0.0000	0.0000
Single Family Housing		0.0000	0.0000	0.0000	0.0000
User Defined Recreational		0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	0.0000	0.0000	0.0000	0.0000

10.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Others	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Port San Luis Harbor Terrace

San Luis Obispo County APCD Air District, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.40	0.02	0.00	0.51	0.51	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.61	0.45	0.03	0.00	0.78	0.77	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.13	0.08	0.03	0.00	0.35	0.35	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.72	0.51	-0.13	0.00	0.93	0.92	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.80	0.66	0.44	0.00	0.95	0.95	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	Tier 3	1	1	No Change	0.00
Cranes	Diesel	Tier 3	1	1	Level 3	0.00
Excavators	Diesel	Tier 3	1	1	Level 3	0.00
Forklifts	Diesel	Tier 3	3	3	Level 3	0.00
Generator Sets	Diesel	Tier 3	1	1	No Change	0.00
Graders	Diesel	Tier 3	1	1	Level 3	0.00
Pavers	Diesel	Tier 3	2	2	Level 3	0.00
Paving Equipment	Diesel	Tier 3	2	2	Level 3	0.00
Rollers	Diesel	Tier 3	2	2	Level 3	0.00
Rubber Tired Dozers	Diesel	Tier 3	4	4	Level 3	0.00
Tractors/Loaders/Backhoes	Diesel	Tier 3	10	10	Level 3	0.00
Welders	Diesel	Tier 3	1	1	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	3.68000E-003	2.37200E-002	1.88400E-002	3.00000E-005	1.97000E-003	1.97000E-003	0.00000E+000	2.55325E+000	2.55325E+000	3.00000E-004	0.00000E+000	2.55958E+000
Cranes	7.46900E-002	8.86500E-001	3.08620E-001	5.70000E-004	4.04700E-002	3.72300E-002	0.00000E+000	5.40733E+001	5.40733E+001	1.61400E-002	0.00000E+000	5.44123E+001
Excavators	4.17000E-003	4.86500E-002	3.43900E-002	5.00000E-005	2.40000E-003	2.21000E-003	0.00000E+000	5.03991E+000	5.03991E+000	1.50000E-003	0.00000E+000	5.07151E+000
Forklifts	8.32300E-002	7.14940E-001	4.40110E-001	5.30000E-004	6.00600E-002	5.52500E-002	0.00000E+000	5.01914E+001	5.01914E+001	1.49800E-002	0.00000E+000	5.05061E+001
Generator Sets	8.20800E-002	6.01260E-001	4.41140E-001	7.60000E-004	4.37500E-002	4.37500E-002	0.00000E+000	6.49989E+001	6.49989E+001	6.63000E-003	0.00000E+000	6.51382E+001
Graders	1.06200E-002	1.08680E-001	4.98100E-002	6.00000E-005	6.11000E-003	5.62000E-003	0.00000E+000	5.96081E+000	5.96081E+000	1.78000E-003	0.00000E+000	5.99818E+000
Pavers	8.08000E-003	9.08700E-002	5.70700E-002	9.00000E-005	4.52000E-003	4.16000E-003	0.00000E+000	8.51416E+000	8.51416E+000	2.57000E-003	0.00000E+000	8.56807E+000
Paving Equipment	6.17000E-003	7.18800E-002	5.08800E-002	8.00000E-005	3.56000E-003	3.28000E-003	0.00000E+000	7.56399E+000	7.56399E+000	2.28000E-003	0.00000E+000	7.61187E+000
Rollers	6.77000E-003	6.25100E-002	4.03000E-002	5.00000E-005	4.61000E-003	4.24000E-003	0.00000E+000	4.94634E+000	4.94634E+000	1.49000E-003	0.00000E+000	4.97765E+000
Rubber Tired Dozers	3.18300E-002	3.59680E-001	2.74410E-001	2.20000E-004	1.67800E-002	1.54400E-002	0.00000E+000	2.11812E+001	2.11812E+001	6.32000E-003	0.00000E+000	2.13140E+001
Tractors/Loaders/ Backhoes	1.26810E-001	1.20768E+000	8.53510E-001	1.10000E-003	9.45300E-002	8.69600E-002	0.00000E+000	1.04539E+002	1.04539E+002	3.12100E-002	0.00000E+000	1.05195E+002
Welders	7.20000E-002	2.14670E-001	2.33520E-001	2.90000E-004	1.80500E-002	1.80500E-002	0.00000E+000	2.16454E+001	2.16454E+001	5.87000E-003	0.00000E+000	2.17686E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	5.90000E-004	1.35700E-002	1.83200E-002	3.00000E-005	9.50000E-004	9.50000E-004	0.00000E+000	2.55325E+000	2.55325E+000	3.00000E-004	0.00000E+000	2.55957E+000
Cranes	1.39600E-002	2.69850E-001	3.02420E-001	5.70000E-004	1.54000E-003	1.54000E-003	0.00000E+000	5.40732E+001	5.40732E+001	1.61400E-002	0.00000E+000	5.44122E+001
Excavators	1.30000E-003	2.51900E-002	4.01700E-002	5.00000E-005	1.80000E-004	1.80000E-004	0.00000E+000	5.03990E+000	5.03990E+000	1.50000E-003	0.00000E+000	5.07150E+000
Forklifts	1.30000E-002	2.96770E-001	4.00740E-001	5.30000E-004	3.12000E-003	3.12000E-003	0.00000E+000	5.01913E+001	5.01913E+001	1.49800E-002	0.00000E+000	5.05060E+001
Generator Sets	1.51300E-002	3.45450E-001	4.66480E-001	7.60000E-004	2.42100E-002	2.42100E-002	0.00000E+000	6.49988E+001	6.49988E+001	6.63000E-003	0.00000E+000	6.51381E+001
Graders	1.51000E-003	2.91900E-002	4.65500E-002	6.00000E-005	2.10000E-004	2.10000E-004	0.00000E+000	5.96080E+000	5.96080E+000	1.78000E-003	0.00000E+000	5.99817E+000
Pavers	2.22000E-003	4.29600E-002	6.85200E-002	9.00000E-005	3.10000E-004	3.10000E-004	0.00000E+000	8.51415E+000	8.51415E+000	2.57000E-003	0.00000E+000	8.56806E+000
Paving Equipment	1.98000E-003	3.83000E-002	6.10800E-002	8.00000E-005	2.80000E-004	2.80000E-004	0.00000E+000	7.56398E+000	7.56398E+000	2.28000E-003	0.00000E+000	7.61186E+000
Rollers	1.29000E-003	2.93800E-002	3.96800E-002	5.00000E-005	3.10000E-004	3.10000E-004	0.00000E+000	4.94633E+000	4.94633E+000	1.49000E-003	0.00000E+000	4.97765E+000
Rubber Tired Dozers	5.40000E-003	1.04340E-001	1.16930E-001	2.20000E-004	5.90000E-004	5.90000E-004	0.00000E+000	2.11812E+001	2.11812E+001	6.32000E-003	0.00000E+000	2.13140E+001
Tractors/Loaders/Backhoes	2.67300E-002	6.10290E-001	8.24110E-001	1.10000E-003	6.41000E-003	6.41000E-003	0.00000E+000	1.04539E+002	1.04539E+002	3.12100E-002	0.00000E+000	1.05194E+002
Welders	1.21800E-002	1.94390E-001	1.72140E-001	2.90000E-004	1.17600E-002	1.17600E-002	0.00000E+000	2.16454E+001	2.16454E+001	5.87000E-003	0.00000E+000	2.17686E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	8.39674E-001	4.27909E-001	2.76008E-002	0.00000E+000	5.17766E-001	5.17766E-001	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	3.90689E-006
Cranes	8.13094E-001	6.95601E-001	2.00894E-002	0.00000E+000	9.61947E-001	9.58636E-001	0.00000E+000	1.10961E-006	1.10961E-006	0.00000E+000	0.00000E+000	1.28647E-006
Excavators	6.88249E-001	4.82220E-001	-1.68072E-001	0.00000E+000	9.25000E-001	9.18552E-001	0.00000E+000	1.98416E-006	1.98416E-006	0.00000E+000	0.00000E+000	1.97180E-006
Forklifts	8.43806E-001	5.84902E-001	8.94549E-002	0.00000E+000	9.48052E-001	9.43529E-001	0.00000E+000	1.19542E-006	1.19542E-006	0.00000E+000	0.00000E+000	1.18798E-006
Generator Sets	8.15668E-001	4.25457E-001	-5.74421E-002	0.00000E+000	4.46629E-001	4.46629E-001	0.00000E+000	1.23079E-006	1.23079E-006	0.00000E+000	0.00000E+000	1.22816E-006
Graders	8.57815E-001	7.31413E-001	6.54487E-002	0.00000E+000	9.65630E-001	9.62633E-001	0.00000E+000	1.67762E-006	1.67762E-006	0.00000E+000	0.00000E+000	1.66717E-006
Pavers	7.25248E-001	5.27237E-001	-2.00631E-001	0.00000E+000	9.31416E-001	9.25481E-001	0.00000E+000	1.17451E-006	1.17451E-006	0.00000E+000	0.00000E+000	1.16712E-006
Paving Equipment	6.79092E-001	4.67168E-001	-2.00472E-001	0.00000E+000	9.21348E-001	9.14634E-001	0.00000E+000	1.32205E-006	1.32205E-006	0.00000E+000	0.00000E+000	1.31374E-006
Rollers	8.09453E-001	5.29995E-001	1.53846E-002	0.00000E+000	9.32755E-001	9.26887E-001	0.00000E+000	2.02170E-006	2.02170E-006	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	8.30349E-001	7.09909E-001	5.73886E-001	0.00000E+000	9.64839E-001	9.61788E-001	0.00000E+000	9.44234E-007	9.44234E-007	0.00000E+000	0.00000E+000	1.40753E-006
Tractors/Loaders/Backhoes	7.89212E-001	4.94659E-001	3.44460E-002	0.00000E+000	9.32191E-001	9.26288E-001	0.00000E+000	1.24355E-006	1.24355E-006	0.00000E+000	0.00000E+000	1.14074E-006
Welders	8.30833E-001	9.44706E-002	2.62847E-001	0.00000E+000	3.48476E-001	3.48476E-001	0.00000E+000	1.38598E-006	1.38598E-006	0.00000E+000	0.00000E+000	1.37813E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
Yes	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
Yes	Water Exposed Area	PM10 Reduction	61.00	PM2.5 Reduction	61.00	Frequency (per day)	3.00
No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	0.00		

Yes	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.15	0.04	0.15	0.04	0.00	0.00
Grading	Fugitive Dust	0.08	0.04	0.03	0.01	0.61	0.61
Grading	Roads	0.12	0.03	0.12	0.03	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.10	0.05	0.04	0.02	0.61	0.61
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	71.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.76	10.76	10.72	10.75	10.76
Hearth	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0.00	100.00	100.00	0.00	100.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	1.12	3.70	2.63	4.61	4.30	4.31	0.00	4.61	4.61	3.85	0.00	4.61
Natural Gas	16.94	16.91	16.91	17.27	16.91	16.91	0.00	16.91	16.91	17.23	16.96	16.91
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	15.00	19.37	18.78	15.00	15.08	17.72
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting: Low Density Suburban

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00	0.00	0.00	
No	Land Use	Increase Diversity	0.08	0.29		
Yes	Land Use	Improve Walkability Design	-0.11	2.00		
No	Land Use	Improve Destination Accessibility	0.00	0.00		
No	Land Use	Increase Transit Accessibility	0.25	0.00		
No	Land Use	Integrate Below Market Rate Housing	0.00	0.00		
	Land Use	Land Use SubTotal	0.00			

Yes	Neighborhood Enhancements	Improve Pedestrian Network	1.00	Project Site		
Yes	Neighborhood Enhancements	Provide Traffic Calming Measures	0.75	100.00	50.00	
No	Neighborhood Enhancements	Implement NEV Network	0.01			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.05			
No	Parking Policy Pricing	Limit Parking Supply	0.00	0.00		
No	Parking Policy Pricing	Unbundle Parking Costs	0.00	0.00		
No	Parking Policy Pricing	On-street Market Pricing	0.00	0.00		
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00	0.00		
No	Transit Improvements	Expand Transit Network	0.00	0.00		
No	Transit Improvements	Increase Transit Frequency	0.00		0.00	
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.05			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"	3.00			
No	Commute	Workplace Parking Charge		0.00		
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program	5.00			
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.05			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
Yes	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
Yes	Use Low VOC Paint (Residential Interior)	71.00
Yes	Use Low VOC Paint (Residential Exterior)	71.00
Yes	Use Low VOC Paint (Non-residential Interior)	71.00
Yes	Use Low VOC Paint (Non-residential Exterior)	71.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Exceed Title 24	20.00	
Yes	Install High Efficiency Lighting	16.00	
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00

DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Apply Water Conservation on Strategy	15.00	10.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
Yes	Install low-flow bathroom faucet	32.00	
Yes	Install low-flow Kitchen faucet	18.00	
Yes	Install low-flow Toilet	20.00	
Yes	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
Yes	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

Port San Luis Harbor Terrace

San Luis Obispo County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	15.80	1000sqft	0.36	15,800.00	0
General Light Industry	10.00	1000sqft	0.23	10,000.00	0
City Park	1.00	Acre	1.00	43,560.00	0
High Turnover (Sit Down Restaurant)	3.00	1000sqft	0.07	3,000.00	0
Hotel	20.00	Room	0.18	8,000.00	0
User Defined Recreational	135.00	User Defined Unit	4.02	175,242.00	0
Single Family Housing	1.00	Dwelling Unit	0.32	1,800.00	3
Convenience Market (24 Hour)	2.00	1000sqft	0.05	2,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2016
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 - Area for hotel units and user defined recreational based on site plan.

Demolition -

Grading - Acres disturbed based on limits of grading identified in Preliminary Grading Plan (2014).

Vehicle Trips - Trip generation based on Transportation Impact Study (CCTC 2014). User defined recreation (campsites) trip rates and % - applied same default rates as hotel use.

Woodstoves - Assume worst-case scenario: conventional woodstoves in hotel/motel units (31).

Energy Use - RV sites estimated to use similar energy use as hotel use. Approximately 63% of the user defined recreationa use (campsites) are RV spots.

Water And Wastewater - Water use per campsite is conservatively estimated at 120 gallons per campsite, per day.

Solid Waste - Solid waste generation for user defined recreational (RV and campsites) is estimated to be similar to hotel uses.

Construction Off-road Equipment Mitigation - Assume Tier 2 engines and Level 3 diesel particulate filters on noted equipment.

Mobile Land Use Mitigation -

Area Mitigation - Use of low VOC architectual coatings, per Green Standard.

Water Mitigation -

Waste Mitigation -

Architectural Coating -

Area Coating - Use of low VOC architectural coatings per Green Standards, as proposed by the project.

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	71
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	71
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	71
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	71
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	LightingElect	0.00	1.71
tblEnergyUse	NT24E	0.00	2.03
tblEnergyUse	NT24NG	0.00	2.99
tblEnergyUse	T24E	0.00	1.58
tblEnergyUse	T24NG	0.00	26.23
tblGrading	AcresOfGrading	10.00	16.50
tblGrading	AcresOfGrading	0.00	16.50
tblGrading	MaterialExported	0.00	72,000.00
tblGrading	MaterialImported	0.00	43,000.00
tblLandUse	LandUseSquareFeet	29,040.00	8,000.00
tblLandUse	LandUseSquareFeet	0.00	175,242.00
tblLandUse	LotAcreage	0.67	0.18
tblLandUse	LotAcreage	0.00	4.02
tblProjectCharacteristics	OperationalYear	2014	2016
tblSolidWaste	SolidWasteGenerationRate	0.00	16.97
tblTripsAndVMT	HaulingTripNumber	9,000.00	14,375.00
tblVehicleTrips	CC_TTP	0.00	61.60
tblVehicleTrips	CNW_TTP	0.00	19.00
tblVehicleTrips	CW_TTP	0.00	19.40
tblVehicleTrips	DV_TP	0.00	38.00
tblVehicleTrips	PB_TP	0.00	4.00
tblVehicleTrips	PR_TP	0.00	58.00
tblVehicleTrips	ST_TR	1.59	2.00
tblVehicleTrips	ST_TR	863.10	134.50
tblVehicleTrips	ST_TR	1.32	3.00
tblVehicleTrips	ST_TR	2.37	11.01
tblVehicleTrips	ST_TR	158.37	72.30

tblVehicleTrips	ST_TR	0.00	2.70
tblVehicleTrips	SU_TR	1.59	2.00
tblVehicleTrips	SU_TR	758.45	134.50
tblVehicleTrips	SU_TR	0.68	3.00
tblVehicleTrips	SU_TR	0.98	11.01
tblVehicleTrips	SU_TR	131.84	72.30
tblVehicleTrips	SU_TR	5.95	8.19
tblVehicleTrips	SU_TR	0.00	2.70
tblVehicleTrips	WD_TR	1.59	2.00
tblVehicleTrips	WD_TR	737.99	134.50
tblVehicleTrips	WD_TR	6.97	3.00
tblVehicleTrips	WD_TR	127.15	72.30
tblVehicleTrips	WD_TR	0.00	2.70
tblWater	IndoorWaterUseRate	0.00	43,800.00
tblWoodstoves	NumberConventional	0.00	31.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	25.2820	307.9869	248.2898	0.5735	20.6045	6.3671	26.9715	10.1668	5.8566	13.0094	0.0000	58,356.7854	58,356.7854	1.4060	0.0000	58,386.3106
2016	329.2175	22.4949	15.7898	0.0239	0.2274	1.2621	1.4104	0.0603	1.1611	1.2005	0.0000	2,451.0466	2,451.0466	0.7069	0.0000	2,465.8904
Total	**354.4995**	**330.4818**	**264.0796**	**0.5975**	**20.8319**	**7.6292**	**28.3820**	**10.2271**	**7.0178**	**14.2099**	**0.0000**	**60,807.8320**	**60,807.8320**	**2.1128**	**0.0000**	**60,852.2011**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	22.1744	282.3856	241.9928	0.5735	15.7517	4.1565	19.9082	4.8503	3.8323	8.6826	0.0000	58,356.7854	58,356.7854	1.4060	0.0000	58,386.3106
2016	328.9084	11.1734	17.8998	0.0239	0.2274	0.0969	0.3243	0.0603	0.0967	0.1570	0.0000	2,451.0466	2,451.0466	0.7069	0.0000	2,465.8904
Total	**351.0829**	**293.5590**	**259.8926**	**0.5975**	**15.9791**	**4.2534**	**20.2325**	**4.9106**	**3.9290**	**8.8396**	**0.0000**	**60,807.8320**	**60,807.8320**	**2.1128**	**0.0000**	**60,852.2011**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.96**	**11.17**	**1.59**	**0.00**	**23.29**	**44.25**	**28.71**	**51.98**	**44.01**	**37.79**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	34.9663	1.4598	120.3337	0.2084		15.9410	15.9410		15.9410	15.9410	1,537.7829	0.1894	1,537.9723	15.6281	0.0000	1,866.1633
Energy	0.1983	1.8021	1.5100	0.0108		0.1370	0.1370		0.1370	0.1370		2,163.1491	2,163.1491	0.0415	0.0397	2,176.3137
Mobile	5.0446	9.0164	41.4397	0.0517	3.6323	0.0986	3.7310	0.9713	0.0905	1.0618		4,545.5475	4,545.5475	0.2351		4,550.4844
Total	**40.2091**	**12.2782**	**163.2834**	**0.2709**	**3.6323**	**16.1766**	**19.8089**	**0.9713**	**16.1685**	**17.1398**	**1,537.7829**	**6,708.8861**	**8,246.6690**	**15.9047**	**0.0397**	**8,592.9614**

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	6.0673	1.1700e-003	0.1032	1.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	0.1894	0.1894	2.7000e-004	0.0000	0.1950
Energy	0.1650	1.4995	1.2565	9.0000e-003		0.1140	0.1140		0.1140	0.1140		1,800.0058	1,800.0058	0.0345	0.0330	1,810.9603
Mobile	4.9924	8.6847	40.4158	0.0493	3.4546	0.0944	3.5491	0.9238	0.0866	1.0104		4,336.0199	4,336.0199	0.2261		4,340.7684
Total	**11.2247**	**10.1854**	**41.7756**	**0.0583**	**3.4546**	**0.2089**	**3.6636**	**0.9238**	**0.2012**	**1.1250**	**0.0000**	**6,136.2151**	**6,136.2151**	**0.2609**	**0.0330**	**6,151.9237**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	72.08	17.04	74.42	78.46	4.89	98.71	81.51	4.89	98.76	93.44	100.00	8.54	25.59	98.36	16.79	28.41

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2015	1/14/2015	5	10	
2	Grading	Grading	1/15/2015	2/11/2015	5	20	
3	Building Construction	Building Construction	2/12/2015	12/30/2015	5	230	
4	Paving	Paving	12/31/2015	1/27/2016	5	20	
5	Architectural Coating	Architectural Coating	1/28/2016	2/24/2016	5	20	

Acres of Grading (Site Preparation Phase): 16.5

Acres of Grading (Grading Phase): 16.5

Acres of Paving: 0

Residential Indoor: 3,645; Residential Outdoor: 1,215; Non-Residential Indoor: 421,905; Non-Residential Outdoor: 140,635 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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
Site Preparation	7	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	14,375.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	117.00	46.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Replace Ground Cover

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2015

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					19.8161	0.0000	19.8161	10.1196	0.0000	10.1196			0.0000			0.0000
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412		4,111.7444	4,111.7444	1.2275		4,137.5225
Total	**5.2609**	**56.8897**	**42.6318**	**0.0391**	**19.8161**	**3.0883**	**22.9044**	**10.1196**	**2.8412**	**12.9608**		**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5225**

3.2 Site Preparation - 2015

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	0.1027	0.1497	1.3592	1.9400e-003	0.1780	1.5200e-003	0.1795	0.0472	1.3700e-003	0.0486		167.5980	167.5980	0.0110		167.8291
Total	**0.1027**	**0.1497**	**1.3592**	**1.9400e-003**	**0.1780**	**1.5200e-003**	**0.1795**	**0.0472**	**1.3700e-003**	**0.0486**		**167.5980**	**167.5980**	**0.0110**		**167.8291**

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					7.7283	0.0000	7.7283	3.9467	0.0000	3.9467			0.0000			0.0000
Off-Road	0.9515	19.4584	23.4003	0.0391		0.1442	0.1442		0.1442	0.1442	0.0000	4,111.7444	4,111.7444	1.2275		4,137.5224
Total	**0.9515**	**19.4584**	**23.4003**	**0.0391**	**7.7283**	**0.1442**	**7.8724**	**3.9467**	**0.1442**	**4.0908**	**0.0000**	**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5224**

3.2 Site Preparation - 2015

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	0.1027	0.1497	1.3592	1.9400e-003	0.1780	1.5200e-003	0.1795	0.0472	1.3700e-003	0.0486		167.5980	167.5980	0.0110		167.8291
Total	**0.1027**	**0.1497**	**1.3592**	**1.9400e-003**	**0.1780**	**1.5200e-003**	**0.1795**	**0.0472**	**1.3700e-003**	**0.0486**		**167.5980**	**167.5980**	**0.0110**		**167.8291**

3.3 Grading - 2015

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					7.9554	0.0000	7.9554	3.5650	0.0000	3.5650			0.0000			0.0000
Off-Road	3.8327	40.4161	26.6731	0.0298		2.3284	2.3284		2.1421	2.1421		3,129.0158	3,129.0158	0.9341		3,148.6328
Total	**3.8327**	**40.4161**	**26.6731**	**0.0298**	**7.9554**	**2.3284**	**10.2837**	**3.5650**	**2.1421**	**5.7070**		**3,129.0158**	**3,129.0158**	**0.9341**		**3,148.6328**

3.3 Grading - 2015

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	21.3638	267.4461	220.4840	0.5422	12.5008	4.0375	16.5383	3.4206	3.7134	7.1340		55,088.1046	55,088.1046	0.4627		55,097.8203
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	0.0856	0.1248	1.1327	1.6200e-003	0.1483	1.2700e-003	0.1496	0.0393	1.1400e-003	0.0405		139.6650	139.6650	9.1700e-003		139.8576
Total	**21.4494**	**267.5708**	**221.6166**	**0.5438**	**12.6491**	**4.0387**	**16.6878**	**3.4599**	**3.7145**	**7.1745**		**55,227.7696**	**55,227.7696**	**0.4718**		**55,237.6779**

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					3.1026	0.0000	3.1026	1.3903	0.0000	1.3903			0.0000			0.0000
Off-Road	0.7250	14.8148	20.3762	0.0298		0.1178	0.1178		0.1178	0.1178	0.0000	3,129.0158	3,129.0158	0.9341		3,148.6328
Total	**0.7250**	**14.8148**	**20.3762**	**0.0298**	**3.1026**	**0.1178**	**3.2204**	**1.3903**	**0.1178**	**1.5082**	**0.0000**	**3,129.0158**	**3,129.0158**	**0.9341**		**3,148.6328**

3.3 Grading - 2015

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	21.3638	267.4461	220.4840	0.5422	12.5008	4.0375	16.5383	3.4206	3.7134	7.1340		55,088.1046	55,088.1046	0.4627		55,097.8203
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	0.0856	0.1248	1.1327	1.6200e-003	0.1483	1.2700e-003	0.1496	0.0393	1.1400e-003	0.0405		139.6650	139.6650	9.1700e-003		139.8576
Total	**21.4494**	**267.5708**	**221.6166**	**0.5438**	**12.6491**	**4.0387**	**16.6878**	**3.4599**	**3.7145**	**7.1745**		**55,227.7696**	**55,227.7696**	**0.4718**		**55,237.6779**

3.4 Building Construction - 2015

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	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904		2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**3.6591**	**30.0299**	**18.7446**	**0.0268**		**2.1167**	**2.1167**		**1.9904**	**1.9904**		**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

3.4 Building Construction - 2015

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	0.6974	4.2497	7.9516	7.8000e-003	0.2095	0.0672	0.2767	0.0598	0.0618	0.1216		783.0165	783.0165	7.8000e-003		783.1802
Worker	0.6675	0.9732	8.8346	0.0126	1.1567	9.9000e-003	1.1666	0.3068	8.9100e-003	0.3157		1,089.3871	1,089.3871	0.0715		1,090.8889
Total	**1.3649**	**5.2229**	**16.7863**	**0.0204**	**1.3661**	**0.0771**	**1.4433**	**0.3666**	**0.0707**	**0.4373**		**1,872.4035**	**1,872.4035**	**0.0793**		**1,874.0691**

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	0.6712	14.1741	17.8156	0.0268		0.4011	0.4011		0.4011	0.4011	0.0000	2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**0.6712**	**14.1741**	**17.8156**	**0.0268**		**0.4011**	**0.4011**		**0.4011**	**0.4011**	**0.0000**	**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

3.4 Building Construction - 2015

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	0.6974	4.2497	7.9516	7.8000e-003	0.2095	0.0672	0.2767	0.0598	0.0618	0.1216		783.0165	783.0165	7.8000e-003		783.1802
Worker	0.6675	0.9732	8.8346	0.0126	1.1567	9.9000e-003	1.1666	0.3068	8.9100e-003	0.3157		1,089.3871	1,089.3871	0.0715		1,090.8889
Total	**1.3649**	**5.2229**	**16.7863**	**0.0204**	**1.3661**	**0.0771**	**1.4433**	**0.3666**	**0.0707**	**0.4373**		**1,872.4035**	**1,872.4035**	**0.0793**		**1,874.0691**

3.5 Paving - 2015

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	2.3172	25.1758	14.9781	0.0223		1.4148	1.4148		1.3016	1.3016		2,339.8984	2,339.8984	0.6986		2,354.5681
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3172**	**25.1758**	**14.9781**	**0.0223**		**1.4148**	**1.4148**		**1.3016**	**1.3016**		**2,339.8984**	**2,339.8984**	**0.6986**		**2,354.5681**

3.5 Paving - 2015

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	0.0856	0.1248	1.1327	1.6200e-003	0.1483	1.2700e-003	0.1496	0.0393	1.1400e-003	0.0405		139.6650	139.6650	9.1700e-003		139.8576
Total	**0.0856**	**0.1248**	**1.1327**	**1.6200e-003**	**0.1483**	**1.2700e-003**	**0.1496**	**0.0393**	**1.1400e-003**	**0.0405**		**139.6650**	**139.6650**	**9.1700e-003**		**139.8576**

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	0.5490	11.0645	16.9276	0.0223		0.0897	0.0897		0.0897	0.0897	0.0000	2,339.8984	2,339.8984	0.6986		2,354.5681
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5490**	**11.0645**	**16.9276**	**0.0223**		**0.0897**	**0.0897**		**0.0897**	**0.0897**	**0.0000**	**2,339.8984**	**2,339.8984**	**0.6986**		**2,354.5681**

3.5 Paving - 2015

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	0.0856	0.1248	1.1327	1.6200e-003	0.1483	1.2700e-003	0.1496	0.0393	1.1400e-003	0.0405		139.6650	139.6650	9.1700e-003		139.8576
Total	**0.0856**	**0.1248**	**1.1327**	**1.6200e-003**	**0.1483**	**1.2700e-003**	**0.1496**	**0.0393**	**1.1400e-003**	**0.0405**		**139.6650**	**139.6650**	**9.1700e-003**		**139.8576**

3.5 Paving - 2016

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	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0898**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**		**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

3.5 Paving - 2016

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	0.0728	0.1090	0.9722	1.6200e-003	0.1483	1.1600e-003	0.1495	0.0393	1.0500e-003	0.0404		134.6699	134.6699	8.1500e-003		134.8410
Total	**0.0728**	**0.1090**	**0.9722**	**1.6200e-003**	**0.1483**	**1.1600e-003**	**0.1495**	**0.0393**	**1.0500e-003**	**0.0404**		**134.6699**	**134.6699**	**8.1500e-003**		**134.8410**

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	0.5490	11.0645	16.9276	0.0223		0.0897	0.0897		0.0897	0.0897	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5490**	**11.0645**	**16.9276**	**0.0223**		**0.0897**	**0.0897**		**0.0897**	**0.0897**	**0.0000**	**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

3.5 Paving - 2016

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	0.0728	0.1090	0.9722	1.6200e-003	0.1483	1.1600e-003	0.1495	0.0393	1.0500e-003	0.0404		134.6699	134.6699	8.1500e-003		134.8410
Total	**0.0728**	**0.1090**	**0.9722**	**1.6200e-003**	**0.1483**	**1.1600e-003**	**0.1495**	**0.0393**	**1.0500e-003**	**0.0404**		**134.6699**	**134.6699**	**8.1500e-003**		**134.8410**

3.6 Architectural Coating - 2016

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	328.7374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**329.1058**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.6 Architectural Coating - 2016

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	0.1116	0.1671	1.4907	2.4800e-003	0.2274	1.7800e-003	0.2292	0.0603	1.6200e-003	0.0619		206.4938	206.4938	0.0125		206.7562
Total	**0.1116**	**0.1671**	**1.4907**	**2.4800e-003**	**0.2274**	**1.7800e-003**	**0.2292**	**0.0603**	**1.6200e-003**	**0.0619**		**206.4938**	**206.4938**	**0.0125**		**206.7562**

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	328.7374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**328.7968**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.6 Architectural Coating - 2016

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	0.1116	0.1671	1.4907	2.4800e-003	0.2274	1.7800e-003	0.2292	0.0603	1.6200e-003	0.0619		206.4938	206.4938	0.0125		206.7562
Total	**0.1116**	**0.1671**	**1.4907**	**2.4800e-003**	**0.2274**	**1.7800e-003**	**0.2292**	**0.0603**	**1.6200e-003**	**0.0619**		**206.4938**	**206.4938**	**0.0125**		**206.7562**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Walkability Design

Improve Pedestrian Network

Provide Traffic Calming Measures

	ROG	NOx	CO	SO2	Fugitive 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					
Unmitigated	5.0446	9.0164	41.4397	0.0517	3.6323	0.0986	3.7310	0.9713	0.0905	1.0618		4,545.5475	4,545.5475	0.2351		4,550.4844
Mitigated	4.9924	8.6847	40.4158	0.0493	3.4546	0.0944	3.5491	0.9238	0.0866	1.0104		4,336.0199	4,336.0199	0.2261		4,340.7684

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	2.00	2.00	2.00	4,065	3,866
Convenience Market (24 Hour)	269.00	269.00	269.00	143,788	136,753
General Light Industry	30.00	30.00	30.00	99,011	94,167
General Office Building	173.96	173.96	173.96	395,735	376,375
High Turnover (Sit Down Restaurant)	216.90	216.90	216.90	191,742	182,361
Hotel	163.40	163.80	163.80	263,468	250,578
Single Family Housing	9.57	10.08	8.77	24,217	23,033
User Defined Recreational	364.50	364.50	364.50	587,312	558,579
Total	1,229.33	1,230.24	1,228.93	1,709,338	1,625,711

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
City Park	13.00	5.00	5.00	33.00	48.00	19.00	66	28	6
Convenience Market (24 Hour)	13.00	5.00	5.00	0.90	80.10	19.00	24	15	61
General Light Industry	13.00	5.00	5.00	59.00	28.00	13.00	92	5	3
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	13.00	5.00	5.00	8.50	72.50	19.00	37	20	43
Hotel	13.00	5.00	5.00	19.40	61.60	19.00	58	38	4
Single Family Housing	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
User Defined Recreational	13.00	5.00	5.00	19.40	61.60	19.00	58	38	4

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.455937	0.042338	0.214948	0.150714	0.068093	0.009944	0.017510	0.022507	0.002330	0.001401	0.008743	0.000855	0.004680

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive 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	0.1650	1.4995	1.2565	9.0000e-003		0.1140	0.1140		0.1140	0.1140		1,800.0058	1,800.0058	0.0345	0.0330	1,810.9603
NaturalGas Unmitigated	0.1983	1.8021	1.5100	0.0108		0.1370	0.1370		0.1370	0.1370		2,163.1491	2,163.1491	0.0415	0.0397	2,176.3137

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					
Convenience Market (24 Hour)	13.6438	1.5000e-004	1.3400e-003	1.1200e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.6052	1.6052	3.0000e-005	3.0000e-005	1.6149
General Light Industry	750.959	8.1000e-003	0.0736	0.0618	4.4000e-004		5.6000e-003	5.6000e-003		5.6000e-003	5.6000e-003		88.3481	88.3481	1.6900e-003	1.6200e-003	88.8858
General Office Building	745.414	8.0400e-003	0.0731	0.0614	4.4000e-004		5.5500e-003	5.5500e-003		5.5500e-003	5.5500e-003		87.6957	87.6957	1.6800e-003	1.6100e-003	88.2294
High Turnover (Sit Down Restaurant)	1734.58	0.0187	0.1701	0.1429	1.0200e-003		0.0129	0.0129		0.0129	0.0129		204.0677	204.0677	3.9100e-003	3.7400e-003	205.3096
Hotel	1016.55	0.0110	0.0997	0.0837	6.0000e-004		7.5700e-003	7.5700e-003		7.5700e-003	7.5700e-003		119.5939	119.5939	2.2900e-003	2.1900e-003	120.3217
Single Family Housing	96.6656	1.0400e-003	8.9100e-003	3.7900e-003	6.0000e-005		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004		11.3724	11.3724	2.2000e-004	2.1000e-004	11.4416
User Defined Recreational	14029	0.1513	1.3754	1.1553	8.2500e-003		0.1045	0.1045		0.1045	0.1045		1,650.4662	1,650.4662	0.0316	0.0303	1,660.5106
City Park	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
Total		**0.1983**	**1.8021**	**1.5100**	**0.0108**		**0.1370**	**0.1370**		**0.1370**	**0.1370**		**2,163.1492**	**2,163.1492**	**0.0415**	**0.0397**	**2,176.3137**

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					
Convenience Market (24 Hour)	0.0109151	1.2000e-004	1.0700e-003	9.0000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		1.2841	1.2841	2.0000e-005	2.0000e-005	1.2919
General Light Industry	0.637315	6.8700e-003	0.0625	0.0525	3.7000e-004		4.7500e-003	4.7500e-003		4.7500e-003	4.7500e-003		74.9782	74.9782	1.4400e-003	1.3700e-003	75.4346
General Office Building	0.59685	6.4400e-003	0.0585	0.0492	3.5000e-004		4.4500e-003	4.4500e-003		4.4500e-003	4.4500e-003		70.2177	70.2177	1.3500e-003	1.2900e-003	70.6450
High Turnover (Sit Down Restaurant)	1.63008	0.0176	0.1598	0.1342	9.6000e-004		0.0122	0.0122		0.0122	0.0122		191.7737	191.7737	3.6800e-003	3.5200e-003	192.9408
Hotel	0.83406	8.9900e-003	0.0818	0.0687	4.9000e-004		6.2100e-003	6.2100e-003		6.2100e-003	6.2100e-003		98.1247	98.1247	1.8800e-003	1.8000e-003	98.7219
Single Family Housing	0.0805527	8.7000e-004	7.4200e-003	3.1600e-003	5.0000e-005		6.0000e-004	6.0000e-004		6.0000e-004	6.0000e-004		9.4768	9.4768	1.8000e-004	1.7000e-004	9.5345
User Defined Recreational	11.5103	0.1241	1.1285	0.9479	6.7700e-003		0.0858	0.0858		0.0858	0.0858		1,354.1504	1,354.1504	0.0260	0.0248	1,362.3916
City Park	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
Total		**0.1650**	**1.4995**	**1.2565**	**9.0000e-003**		**0.1140**	**0.1140**		**0.1140**	**0.1140**		**1,800.0058**	**1,800.0058**	**0.0345**	**0.0330**	**1,810.9603**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive 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					
Unmitigated	34.9663	1.4598	120.3337	0.2084		15.9410	15.9410		15.9410	15.9410	1,537.7829	0.1894	1,537.9723	15.6281	0.0000	1,866.1633
Mitigated	6.0673	1.1700e-003	0.1032	1.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	0.1894	0.1894	2.7000e-004	0.0000	0.1950

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	1.8013					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.5512					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	27.6093	1.4586	120.2305	0.2084		15.9404	15.9404		15.9404	15.9404	1,537.7829	0.0000	1,537.7829	15.6279	0.0000	1,865.9683
Landscaping	4.5400e-003	1.1700e-003	0.1032	1.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004		0.1894	0.1894	2.7000e-004		0.1950
Total	**34.9663**	**1.4598**	**120.3337**	**0.2084**		**15.9410**	**15.9410**		**15.9410**	**15.9410**	**1,537.7829**	**0.1894**	**1,537.9723**	**15.6282**	**0.0000**	**1,866.1633**

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	0.5116					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.5512					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	4.5400e-003	1.1700e-003	0.1032	1.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004		0.1894	0.1894	2.7000e-004		0.1950
Total	**6.0673**	**1.1700e-003**	**0.1032**	**1.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**0.1894**	**0.1894**	**2.7000e-004**	**0.0000**	**0.1950**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Vegetation

Port San Luis Harbor Terrace

San Luis Obispo County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	15.80	1000sqft	0.36	15,800.00	0
General Light Industry	10.00	1000sqft	0.23	10,000.00	0
City Park	1.00	Acre	1.00	43,560.00	0
High Turnover (Sit Down Restaurant)	3.00	1000sqft	0.07	3,000.00	0
Hotel	20.00	Room	0.18	8,000.00	0
User Defined Recreational	135.00	User Defined Unit	4.02	175,242.00	0
Single Family Housing	1.00	Dwelling Unit	0.32	1,800.00	3
Convenience Market (24 Hour)	2.00	1000sqft	0.05	2,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2016
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 - Area for hotel units and user defined recreational based on site plan.

Demolition -

Grading - Acres disturbed based on limits of grading identified in Preliminary Grading Plan (2014).

Vehicle Trips - Trip generation based on Transportation Impact Study (CCTC 2014). User defined recreation (campsites) trip rates and % - applied same default rates as hotel use.

Woodstoves - Assume worst-case scenario: conventional woodstoves in hotel/motel units (31).

Energy Use - RV sites estimated to use similar energy use as hotel use. Approximately 63% of the user defined recreationa use (campsites) are RV spots.

Water And Wastewater - Water use per campsite is conservatively estimated at 120 gallons per campsite, per day.

Solid Waste - Solid waste generation for user defined recreational (RV and campsites) is estimated to be similar to hotel uses.

Construction Off-road Equipment Mitigation - Assume Tier 2 engines and Level 3 diesel particulate filters on noted equipment.

Mobile Land Use Mitigation -

Area Mitigation - Use of low VOC architectual coatings, per Green Standard.

Water Mitigation -

Waste Mitigation -

Architectural Coating -

Area Coating - Use of low VOC architectural coatings per Green Standards, as proposed by the project.

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	71
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	71
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	71
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	71
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	LightingElect	0.00	1.71
tblEnergyUse	NT24E	0.00	2.03
tblEnergyUse	NT24NG	0.00	2.99
tblEnergyUse	T24E	0.00	1.58
tblEnergyUse	T24NG	0.00	26.23
tblGrading	AcresOfGrading	10.00	16.50
tblGrading	AcresOfGrading	0.00	16.50
tblGrading	MaterialExported	0.00	72,000.00
tblGrading	MaterialImported	0.00	43,000.00
tblLandUse	LandUseSquareFeet	29,040.00	8,000.00
tblLandUse	LandUseSquareFeet	0.00	175,242.00
tblLandUse	LotAcreage	0.67	0.18
tblLandUse	LotAcreage	0.00	4.02
tblProjectCharacteristics	OperationalYear	2014	2016
tblSolidWaste	SolidWasteGenerationRate	0.00	16.97
tblTripsAndVMT	HaulingTripNumber	9,000.00	14,375.00
tblVehicleTrips	CC_TTP	0.00	61.60
tblVehicleTrips	CNW_TTP	0.00	19.00
tblVehicleTrips	CW_TTP	0.00	19.40
tblVehicleTrips	DV_TP	0.00	38.00
tblVehicleTrips	PB_TP	0.00	4.00
tblVehicleTrips	PR_TP	0.00	58.00
tblVehicleTrips	ST_TR	1.59	2.00
tblVehicleTrips	ST_TR	863.10	134.50
tblVehicleTrips	ST_TR	1.32	3.00
tblVehicleTrips	ST_TR	2.37	11.01
tblVehicleTrips	ST_TR	158.37	72.30

tblVehicleTrips	ST_TR	0.00	2.70
tblVehicleTrips	SU_TR	1.59	2.00
tblVehicleTrips	SU_TR	758.45	134.50
tblVehicleTrips	SU_TR	0.68	3.00
tblVehicleTrips	SU_TR	0.98	11.01
tblVehicleTrips	SU_TR	131.84	72.30
tblVehicleTrips	SU_TR	5.95	8.19
tblVehicleTrips	SU_TR	0.00	2.70
tblVehicleTrips	WD_TR	1.59	2.00
tblVehicleTrips	WD_TR	737.99	134.50
tblVehicleTrips	WD_TR	6.97	3.00
tblVehicleTrips	WD_TR	127.15	72.30
tblVehicleTrips	WD_TR	0.00	2.70
tblWater	IndoorWaterUseRate	0.00	43,800.00
tblWoodstoves	NumberConventional	0.00	31.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	22.3838	301.8793	191.0076	0.5739	20.6045	6.3488	26.9533	10.1668	5.8398	13.0094	0.0000	58,491.3618	58,491.3618	1.4005	0.0000	58,520.7722
2016	329.2096	22.4821	15.7763	0.0240	0.2274	1.2621	1.4104	0.0603	1.1611	1.2005	0.0000	2,457.5923	2,457.5923	0.7069	0.0000	2,472.4361
Total	**351.5934**	**324.3614**	**206.7839**	**0.5979**	**20.8319**	**7.6109**	**28.3637**	**10.2271**	**7.0009**	**14.2099**	**0.0000**	**60,948.9540**	**60,948.9540**	**2.1074**	**0.0000**	**60,993.2083**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	19.2762	276.2780	184.7106	0.5739	15.7517	4.1383	19.8900	4.8503	3.8155	8.6658	0.0000	58,491.3618	58,491.3618	1.4005	0.0000	58,520.7722
2016	328.9006	11.1607	17.8863	0.0240	0.2274	0.0969	0.3243	0.0603	0.0967	0.1570	0.0000	2,457.5923	2,457.5923	0.7069	0.0000	2,472.4361
Total	**348.1767**	**287.4386**	**202.5969**	**0.5979**	**15.9791**	**4.2351**	**20.2142**	**4.9106**	**3.9122**	**8.8228**	**0.0000**	**60,948.9540**	**60,948.9540**	**2.1074**	**0.0000**	**60,993.2083**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.97**	**11.38**	**2.02**	**0.00**	**23.29**	**44.35**	**28.73**	**51.98**	**44.12**	**37.91**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	34.9663	1.4598	120.3337	0.2084		15.9410	15.9410		15.9410	15.9410	1,537.7829	0.1894	1,537.9723	15.6281	0.0000	1,866.1633
Energy	0.1983	1.8021	1.5100	0.0108		0.1370	0.1370		0.1370	0.1370		2,163.1491	2,163.1491	0.0415	0.0397	2,176.3137
Mobile	4.5488	8.5161	35.3681	0.0535	3.6323	0.0976	3.7300	0.9713	0.0896	1.0609		4,704.2844	4,704.2844	0.2348		4,709.2157
Total	**39.7133**	**11.7779**	**157.2118**	**0.2727**	**3.6323**	**16.1756**	**19.8079**	**0.9713**	**16.1675**	**17.1388**	**1,537.7829**	**6,867.6230**	**8,405.4059**	**15.9044**	**0.0397**	**8,751.6927**

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	6.0673	1.1700e-003	0.1032	1.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	0.1894	0.1894	2.7000e-004	0.0000	0.1950
Energy	0.1650	1.4995	1.2565	9.0000e-003		0.1140	0.1140		0.1140	0.1140		1,800.0058	1,800.0058	0.0345	0.0330	1,810.9603
Mobile	4.4971	8.2036	34.3138	0.0510	3.4546	0.0934	3.5480	0.9238	0.0857	1.0095		4,487.4624	4,487.4624	0.2259		4,492.2053
Total	**10.7294**	**9.7043**	**35.6735**	**0.0600**	**3.4546**	**0.2079**	**3.6626**	**0.9238**	**0.2002**	**1.1240**	**0.0000**	**6,287.6576**	**6,287.6576**	**0.2606**	**0.0330**	**6,303.3607**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**72.98**	**17.61**	**77.31**	**77.99**	**4.89**	**98.71**	**81.51**	**4.89**	**98.76**	**93.44**	**100.00**	**8.44**	**25.20**	**98.36**	**16.79**	**27.98**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2015	1/14/2015	5	10	
2	Grading	Grading	1/15/2015	2/11/2015	5	20	
3	Building Construction	Building Construction	2/12/2015	12/30/2015	5	230	
4	Paving	Paving	12/31/2015	1/27/2016	5	20	
5	Architectural Coating	Architectural Coating	1/28/2016	2/24/2016	5	20	

Acres of Grading (Site Preparation Phase): 16.5

Acres of Grading (Grading Phase): 16.5

Acres of Paving: 0

Residential Indoor: 3,645; Residential Outdoor: 1,215; Non-Residential Indoor: 421,905; Non-Residential Outdoor: 140,635 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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
Site Preparation	7	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	14,375.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	117.00	46.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Replace Ground Cover

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2015

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					19.8161	0.0000	19.8161	10.1196	0.0000	10.1196			0.0000			0.0000
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412		4,111.7444	4,111.7444	1.2275		4,137.5225
Total	**5.2609**	**56.8897**	**42.6318**	**0.0391**	**19.8161**	**3.0883**	**22.9044**	**10.1196**	**2.8412**	**12.9608**		**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5225**

3.2 Site Preparation - 2015

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	0.0950	0.1322	1.3302	2.0400e-003	0.1780	1.5200e-003	0.1795	0.0472	1.3700e-003	0.0486		175.7186	175.7186	0.0110		175.9497
Total	**0.0950**	**0.1322**	**1.3302**	**2.0400e-003**	**0.1780**	**1.5200e-003**	**0.1795**	**0.0472**	**1.3700e-003**	**0.0486**		**175.7186**	**175.7186**	**0.0110**		**175.9497**

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					7.7283	0.0000	7.7283	3.9467	0.0000	3.9467			0.0000			0.0000
Off-Road	0.9515	19.4584	23.4003	0.0391		0.1442	0.1442		0.1442	0.1442	0.0000	4,111.7444	4,111.7444	1.2275		4,137.5224
Total	**0.9515**	**19.4584**	**23.4003**	**0.0391**	**7.7283**	**0.1442**	**7.8724**	**3.9467**	**0.1442**	**4.0908**	**0.0000**	**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5224**

3.2 Site Preparation - 2015

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	0.0950	0.1322	1.3302	2.0400e-003	0.1780	1.5200e-003	0.1795	0.0472	1.3700e-003	0.0486		175.7186	175.7186	0.0110		175.9497
Total	**0.0950**	**0.1322**	**1.3302**	**2.0400e-003**	**0.1780**	**1.5200e-003**	**0.1795**	**0.0472**	**1.3700e-003**	**0.0486**		**175.7186**	**175.7186**	**0.0110**		**175.9497**

3.3 Grading - 2015

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					7.9554	0.0000	7.9554	3.5650	0.0000	3.5650			0.0000			0.0000
Off-Road	3.8327	40.4161	26.6731	0.0298		2.3284	2.3284		2.1421	2.1421		3,129.0158	3,129.0158	0.9341		3,148.6328
Total	**3.8327**	**40.4161**	**26.6731**	**0.0298**	**7.9554**	**2.3284**	**10.2837**	**3.5650**	**2.1421**	**5.7070**		**3,129.0158**	**3,129.0158**	**0.9341**		**3,148.6328**

3.3 Grading - 2015

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	18.4720	261.3530	163.2259	0.5425	12.5008	4.0192	16.5200	3.4206	3.6966	7.1172		55,215.9138	55,215.9138	0.4572		55,225.5147
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	0.0792	0.1102	1.1085	1.7000e-003	0.1483	1.2700e-003	0.1496	0.0393	1.1400e-003	0.0405		146.4322	146.4322	9.1700e-003		146.6247
Total	**18.5511**	**261.4632**	**164.3344**	**0.5442**	**12.6491**	**4.0205**	**16.6696**	**3.4599**	**3.6977**	**7.1576**		**55,362.3460**	**55,362.3460**	**0.4664**		**55,372.1394**

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					3.1026	0.0000	3.1026	1.3903	0.0000	1.3903			0.0000			0.0000
Off-Road	0.7250	14.8148	20.3762	0.0298		0.1178	0.1178		0.1178	0.1178	0.0000	3,129.0158	3,129.0158	0.9341		3,148.6328
Total	**0.7250**	**14.8148**	**20.3762**	**0.0298**	**3.1026**	**0.1178**	**3.2204**	**1.3903**	**0.1178**	**1.5082**	**0.0000**	**3,129.0158**	**3,129.0158**	**0.9341**		**3,148.6328**

3.3 Grading - 2015

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	18.4720	261.3530	163.2259	0.5425	12.5008	4.0192	16.5200	3.4206	3.6966	7.1172		55,215.9138	55,215.9138	0.4572		55,225.5147
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	0.0792	0.1102	1.1085	1.7000e-003	0.1483	1.2700e-003	0.1496	0.0393	1.1400e-003	0.0405		146.4322	146.4322	9.1700e-003		146.6247
Total	**18.5511**	**261.4632**	**164.3344**	**0.5442**	**12.6491**	**4.0205**	**16.6696**	**3.4599**	**3.6977**	**7.1576**		**55,362.3460**	**55,362.3460**	**0.4664**		**55,372.1394**

3.4 Building Construction - 2015

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	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904		2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**3.6591**	**30.0299**	**18.7446**	**0.0268**		**2.1167**	**2.1167**		**1.9904**	**1.9904**		**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

3.4 Building Construction - 2015

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	0.5661	4.1833	5.5284	7.8400e-003	0.2095	0.0660	0.2754	0.0598	0.0606	0.1204		791.4489	791.4489	7.5600e-003		791.6077
Worker	0.6174	0.8595	8.6464	0.0132	1.1567	9.9000e-003	1.1666	0.3068	8.9100e-003	0.3157		1,142.1709	1,142.1709	0.0715		1,143.6728
Total	**1.1834**	**5.0429**	**14.1748**	**0.0211**	**1.3661**	**0.0759**	**1.4420**	**0.3666**	**0.0695**	**0.4361**		**1,933.6198**	**1,933.6198**	**0.0791**		**1,935.2804**

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	0.6712	14.1741	17.8156	0.0268		0.4011	0.4011		0.4011	0.4011	0.0000	2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**0.6712**	**14.1741**	**17.8156**	**0.0268**		**0.4011**	**0.4011**		**0.4011**	**0.4011**	**0.0000**	**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

3.4 Building Construction - 2015

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	0.5661	4.1833	5.5284	7.8400e-003	0.2095	0.0660	0.2754	0.0598	0.0606	0.1204		791.4489	791.4489	7.5600e-003		791.6077
Worker	0.6174	0.8595	8.6464	0.0132	1.1567	9.9000e-003	1.1666	0.3068	8.9100e-003	0.3157		1,142.1709	1,142.1709	0.0715		1,143.6728
Total	**1.1834**	**5.0429**	**14.1748**	**0.0211**	**1.3661**	**0.0759**	**1.4420**	**0.3666**	**0.0695**	**0.4361**		**1,933.6198**	**1,933.6198**	**0.0791**		**1,935.2804**

3.5 Paving - 2015

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	2.3172	25.1758	14.9781	0.0223		1.4148	1.4148		1.3016	1.3016		2,339.8984	2,339.8984	0.6986		2,354.5681
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3172**	**25.1758**	**14.9781**	**0.0223**		**1.4148**	**1.4148**		**1.3016**	**1.3016**		**2,339.8984**	**2,339.8984**	**0.6986**		**2,354.5681**

3.5 Paving - 2015

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	0.0792	0.1102	1.1085	1.7000e-003	0.1483	1.2700e-003	0.1496	0.0393	1.1400e-003	0.0405		146.4322	146.4322	9.1700e-003		146.6247
Total	**0.0792**	**0.1102**	**1.1085**	**1.7000e-003**	**0.1483**	**1.2700e-003**	**0.1496**	**0.0393**	**1.1400e-003**	**0.0405**		**146.4322**	**146.4322**	**9.1700e-003**		**146.6247**

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	0.5490	11.0645	16.9276	0.0223		0.0897	0.0897		0.0897	0.0897	0.0000	2,339.8984	2,339.8984	0.6986		2,354.5681
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5490**	**11.0645**	**16.9276**	**0.0223**		**0.0897**	**0.0897**		**0.0897**	**0.0897**	**0.0000**	**2,339.8984**	**2,339.8984**	**0.6986**		**2,354.5681**

3.5 Paving - 2015

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	0.0792	0.1102	1.1085	1.7000e-003	0.1483	1.2700e-003	0.1496	0.0393	1.1400e-003	0.0405		146.4322	146.4322	9.1700e-003		146.6247
Total	**0.0792**	**0.1102**	**1.1085**	**1.7000e-003**	**0.1483**	**1.2700e-003**	**0.1496**	**0.0393**	**1.1400e-003**	**0.0405**		**146.4322**	**146.4322**	**9.1700e-003**		**146.6247**

3.5 Paving - 2016

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	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0898**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**		**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

3.5 Paving - 2016

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	0.0677	0.0962	0.9587	1.6900e-003	0.1483	1.1600e-003	0.1495	0.0393	1.0500e-003	0.0404		141.2155	141.2155	8.1500e-003		141.3866
Total	**0.0677**	**0.0962**	**0.9587**	**1.6900e-003**	**0.1483**	**1.1600e-003**	**0.1495**	**0.0393**	**1.0500e-003**	**0.0404**		**141.2155**	**141.2155**	**8.1500e-003**		**141.3866**

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	0.5490	11.0645	16.9276	0.0223		0.0897	0.0897		0.0897	0.0897	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5490**	**11.0645**	**16.9276**	**0.0223**		**0.0897**	**0.0897**		**0.0897**	**0.0897**	**0.0000**	**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

3.5 Paving - 2016

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	0.0677	0.0962	0.9587	1.6900e-003	0.1483	1.1600e-003	0.1495	0.0393	1.0500e-003	0.0404		141.2155	141.2155	8.1500e-003		141.3866
Total	**0.0677**	**0.0962**	**0.9587**	**1.6900e-003**	**0.1483**	**1.1600e-003**	**0.1495**	**0.0393**	**1.0500e-003**	**0.0404**		**141.2155**	**141.2155**	**8.1500e-003**		**141.3866**

3.6 Architectural Coating - 2016

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	328.7374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**329.1058**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.6 Architectural Coating - 2016

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	0.1038	0.1475	1.4700	2.6000e-003	0.2274	1.7800e-003	0.2292	0.0603	1.6200e-003	0.0619		216.5305	216.5305	0.0125		216.7929
Total	**0.1038**	**0.1475**	**1.4700**	**2.6000e-003**	**0.2274**	**1.7800e-003**	**0.2292**	**0.0603**	**1.6200e-003**	**0.0619**		**216.5305**	**216.5305**	**0.0125**		**216.7929**

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	328.7374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**328.7968**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.6 Architectural Coating - 2016

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	0.1038	0.1475	1.4700	2.6000e-003	0.2274	1.7800e-003	0.2292	0.0603	1.6200e-003	0.0619		216.5305	216.5305	0.0125		216.7929
Total	**0.1038**	**0.1475**	**1.4700**	**2.6000e-003**	**0.2274**	**1.7800e-003**	**0.2292**	**0.0603**	**1.6200e-003**	**0.0619**		**216.5305**	**216.5305**	**0.0125**		**216.7929**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Walkability Design

Improve Pedestrian Network

Provide Traffic Calming Measures

	ROG	NOx	CO	SO2	Fugitive 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					
Unmitigated	4.5488	8.5161	35.3681	0.0535	3.6323	0.0976	3.7300	0.9713	0.0896	1.0609		4,704.2844	4,704.2844	0.2348		4,709.2157
Mitigated	4.4971	8.2036	34.3138	0.0510	3.4546	0.0934	3.5480	0.9238	0.0857	1.0095		4,487.4624	4,487.4624	0.2259		4,492.2053

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	2.00	2.00	2.00	4,065	3,866
Convenience Market (24 Hour)	269.00	269.00	269.00	143,788	136,753
General Light Industry	30.00	30.00	30.00	99,011	94,167
General Office Building	173.96	173.96	173.96	395,735	376,375
High Turnover (Sit Down Restaurant)	216.90	216.90	216.90	191,742	182,361
Hotel	163.40	163.80	163.80	263,468	250,578
Single Family Housing	9.57	10.08	8.77	24,217	23,033
User Defined Recreational	364.50	364.50	364.50	587,312	558,579
Total	1,229.33	1,230.24	1,228.93	1,709,338	1,625,711

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
City Park	13.00	5.00	5.00	33.00	48.00	19.00	66	28	6
Convenience Market (24 Hour)	13.00	5.00	5.00	0.90	80.10	19.00	24	15	61
General Light Industry	13.00	5.00	5.00	59.00	28.00	13.00	92	5	3
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	13.00	5.00	5.00	8.50	72.50	19.00	37	20	43
Hotel	13.00	5.00	5.00	19.40	61.60	19.00	58	38	4
Single Family Housing	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
User Defined Recreational	13.00	5.00	5.00	19.40	61.60	19.00	58	38	4

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.455937	0.042338	0.214948	0.150714	0.068093	0.009944	0.017510	0.022507	0.002330	0.001401	0.008743	0.000855	0.004680

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive 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	0.1650	1.4995	1.2565	9.0000e-003		0.1140	0.1140		0.1140	0.1140		1,800.0058	1,800.0058	0.0345	0.0330	1,810.9603
NaturalGas Unmitigated	0.1983	1.8021	1.5100	0.0108		0.1370	0.1370		0.1370	0.1370		2,163.1491	2,163.1491	0.0415	0.0397	2,176.3137

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					
Convenience Market (24 Hour)	13.6438	1.5000e-004	1.3400e-003	1.1200e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.6052	1.6052	3.0000e-005	3.0000e-005	1.6149
General Light Industry	750.959	8.1000e-003	0.0736	0.0618	4.4000e-004		5.6000e-003	5.6000e-003		5.6000e-003	5.6000e-003		88.3481	88.3481	1.6900e-003	1.6200e-003	88.8858
General Office Building	745.414	8.0400e-003	0.0731	0.0614	4.4000e-004		5.5500e-003	5.5500e-003		5.5500e-003	5.5500e-003		87.6957	87.6957	1.6800e-003	1.6100e-003	88.2294
High Turnover (Sit Down Restaurant)	1734.58	0.0187	0.1701	0.1429	1.0200e-003		0.0129	0.0129		0.0129	0.0129		204.0677	204.0677	3.9100e-003	3.7400e-003	205.3096
Hotel	1016.55	0.0110	0.0997	0.0837	6.0000e-004		7.5700e-003	7.5700e-003		7.5700e-003	7.5700e-003		119.5939	119.5939	2.2900e-003	2.1900e-003	120.3217
Single Family Housing	96.6656	1.0400e-003	8.9100e-003	3.7900e-003	6.0000e-005		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004		11.3724	11.3724	2.2000e-004	2.1000e-004	11.4416
User Defined Recreational	14029	0.1513	1.3754	1.1553	8.2500e-003		0.1045	0.1045		0.1045	0.1045		1,650.4662	1,650.4662	0.0316	0.0303	1,660.5106
City Park	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
Total		**0.1983**	**1.8021**	**1.5100**	**0.0108**		**0.1370**	**0.1370**		**0.1370**	**0.1370**		**2,163.1492**	**2,163.1492**	**0.0415**	**0.0397**	**2,176.3137**

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					
Convenience Market (24 Hour)	0.0109151	1.2000e-004	1.0700e-003	9.0000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		1.2841	1.2841	2.0000e-005	2.0000e-005	1.2919
General Light Industry	0.637315	6.8700e-003	0.0625	0.0525	3.7000e-004		4.7500e-003	4.7500e-003		4.7500e-003	4.7500e-003		74.9782	74.9782	1.4400e-003	1.3700e-003	75.4346
General Office Building	0.59685	6.4400e-003	0.0585	0.0492	3.5000e-004		4.4500e-003	4.4500e-003		4.4500e-003	4.4500e-003		70.2177	70.2177	1.3500e-003	1.2900e-003	70.6450
High Turnover (Sit Down Restaurant)	1.63008	0.0176	0.1598	0.1342	9.6000e-004		0.0122	0.0122		0.0122	0.0122		191.7737	191.7737	3.6800e-003	3.5200e-003	192.9408
Hotel	0.83406	8.9900e-003	0.0818	0.0687	4.9000e-004		6.2100e-003	6.2100e-003		6.2100e-003	6.2100e-003		98.1247	98.1247	1.8800e-003	1.8000e-003	98.7219
Single Family Housing	0.0805527	8.7000e-004	7.4200e-003	3.1600e-003	5.0000e-005		6.0000e-004	6.0000e-004		6.0000e-004	6.0000e-004		9.4768	9.4768	1.8000e-004	1.7000e-004	9.5345
User Defined Recreational	11.5103	0.1241	1.1285	0.9479	6.7700e-003		0.0858	0.0858		0.0858	0.0858		1,354.1504	1,354.1504	0.0260	0.0248	1,362.3916
City Park	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
Total		**0.1650**	**1.4995**	**1.2565**	**9.0000e-003**		**0.1140**	**0.1140**		**0.1140**	**0.1140**		**1,800.0058**	**1,800.0058**	**0.0345**	**0.0330**	**1,810.9603**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive 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					
Unmitigated	34.9663	1.4598	120.3337	0.2084		15.9410	15.9410		15.9410	15.9410	1,537.7829	0.1894	1,537.9723	15.6281	0.0000	1,866.1633
Mitigated	6.0673	1.1700e-003	0.1032	1.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	0.1894	0.1894	2.7000e-004	0.0000	0.1950

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	1.8013					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.5512					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	27.6093	1.4586	120.2305	0.2084		15.9404	15.9404		15.9404	15.9404	1,537.7829	0.0000	1,537.7829	15.6279	0.0000	1,865.9683
Landscaping	4.5400e-003	1.1700e-003	0.1032	1.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004		0.1894	0.1894	2.7000e-004		0.1950
Total	**34.9663**	**1.4598**	**120.3337**	**0.2084**		**15.9410**	**15.9410**		**15.9410**	**15.9410**	**1,537.7829**	**0.1894**	**1,537.9723**	**15.6282**	**0.0000**	**1,866.1633**

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	0.5116					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.5512					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	4.5400e-003	1.1700e-003	0.1032	1.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004		0.1894	0.1894	2.7000e-004		0.1950
Total	**6.0673**	**1.1700e-003**	**0.1032**	**1.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**0.1894**	**0.1894**	**2.7000e-004**	**0.0000**	**0.1950**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Vegetation

Port San Luis Harbor Terrace

San Luis Obispo County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	15.80	1000sqft	0.36	15,800.00	0
General Light Industry	10.00	1000sqft	0.23	10,000.00	0
City Park	1.00	Acre	1.00	43,560.00	0
High Turnover (Sit Down Restaurant)	3.00	1000sqft	0.07	3,000.00	0
Hotel	20.00	Room	0.18	8,000.00	0
User Defined Recreational	135.00	User Defined Unit	4.02	175,242.00	0
Single Family Housing	1.00	Dwelling Unit	0.32	1,800.00	3
Convenience Market (24 Hour)	2.00	1000sqft	0.05	2,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2016
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 - Area for hotel units and user defined recreational based on site plan.

Demolition -

Grading - Acres disturbed based on limits of grading identified in Preliminary Grading Plan (2014).

Vehicle Trips - Trip generation based on Transportation Impact Study (CCTC 2014). User defined recreation (campsites) trip rates and % - applied same default rates as hotel use.

Woodstoves - Assume worst-case scenario: conventional woodstoves in hotel/motel units (31).

Energy Use - RV sites estimated to use similar energy use as hotel use. Approximately 63% of the user defined recreationa use (campsites) are RV spots.

Water And Wastewater - Water use per campsite is conservatively estimated at 120 gallons per campsite, per day.

Solid Waste - Solid waste generation for user defined recreational (RV and campsites) is estimated to be similar to hotel uses.

Construction Off-road Equipment Mitigation - Assume Tier 2 engines and Level 3 diesel particulate filters on noted equipment.

Mobile Land Use Mitigation -

Area Mitigation - Use of low VOC architectual coatings, per Green Standard.

Water Mitigation -

Waste Mitigation -

Architectural Coating -

Area Coating - Use of low VOC architectural coatings per Green Standards, as proposed by the project.

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	71
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	71
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	71
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	71
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	LightingElect	0.00	1.71
tblEnergyUse	NT24E	0.00	2.03
tblEnergyUse	NT24NG	0.00	2.99
tblEnergyUse	T24E	0.00	1.58
tblEnergyUse	T24NG	0.00	26.23
tblGrading	AcresOfGrading	10.00	16.50
tblGrading	AcresOfGrading	0.00	16.50
tblGrading	MaterialExported	0.00	72,000.00
tblGrading	MaterialImported	0.00	43,000.00
tblLandUse	LandUseSquareFeet	29,040.00	8,000.00
tblLandUse	LandUseSquareFeet	0.00	175,242.00
tblLandUse	LotAcreage	0.67	0.18
tblLandUse	LotAcreage	0.00	4.02
tblProjectCharacteristics	OperationalYear	2014	2016
tblSolidWaste	SolidWasteGenerationRate	0.00	16.97
tblTripsAndVMT	HaulingTripNumber	9,000.00	14,375.00
tblVehicleTrips	CC_TTP	0.00	61.60
tblVehicleTrips	CNW_TTP	0.00	19.00
tblVehicleTrips	CW_TTP	0.00	19.40
tblVehicleTrips	DV_TP	0.00	38.00
tblVehicleTrips	PB_TP	0.00	4.00
tblVehicleTrips	PR_TP	0.00	58.00
tblVehicleTrips	ST_TR	1.59	2.00
tblVehicleTrips	ST_TR	863.10	134.50
tblVehicleTrips	ST_TR	1.32	3.00
tblVehicleTrips	ST_TR	2.37	11.01
tblVehicleTrips	ST_TR	158.37	72.30

tblVehicleTrips	ST_TR	0.00	2.70
tblVehicleTrips	SU_TR	1.59	2.00
tblVehicleTrips	SU_TR	758.45	134.50
tblVehicleTrips	SU_TR	0.68	3.00
tblVehicleTrips	SU_TR	0.98	11.01
tblVehicleTrips	SU_TR	131.84	72.30
tblVehicleTrips	SU_TR	5.95	8.19
tblVehicleTrips	SU_TR	0.00	2.70
tblVehicleTrips	WD_TR	1.59	2.00
tblVehicleTrips	WD_TR	737.99	134.50
tblVehicleTrips	WD_TR	6.97	3.00
tblVehicleTrips	WD_TR	127.15	72.30
tblVehicleTrips	WD_TR	0.00	2.70
tblWater	IndoorWaterUseRate	0.00	43,800.00
tblWoodstoves	NumberConventional	0.00	31.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.8345	7.4575	6.4521	0.0114	0.4563	0.3319	0.7882	0.1616	0.3103	0.4718	0.0000	1,027.9876	1,027.9876	0.0973	0.0000	1,030.0314
2016	3.3126	0.2391	0.1833	2.8000e-004	3.5900e-003	0.0140	0.0176	9.5000e-004	0.0130	0.0140	0.0000	25.5748	25.5748	6.5100e-003	0.0000	25.7114
Total	**4.1471**	**7.6965**	**6.6354**	**0.0117**	**0.4599**	**0.3459**	**0.8058**	**0.1625**	**0.3233**	**0.4858**	**0.0000**	**1,053.5623**	**1,053.5623**	**0.1038**	**0.0000**	**1,055.7428**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.4374	5.1838	6.1872	0.0114	0.3473	0.0971	0.4444	0.1089	0.0932	0.2021	0.0000	1,027.9872	1,027.9872	0.0973	0.0000	1,030.0310
2016	3.2949	0.1213	0.2028	2.8000e-004	3.5900e-003	1.8300e-003	5.4200e-003	9.5000e-004	1.8300e-003	2.7800e-003	0.0000	25.5747	25.5747	6.5100e-003	0.0000	25.7114
Total	**3.7323**	**5.3051**	**6.3900**	**0.0117**	**0.3509**	**0.0990**	**0.4499**	**0.1099**	**0.0950**	**0.2049**	**0.0000**	**1,053.5619**	**1,053.5619**	**0.1038**	**0.0000**	**1,055.7424**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**10.00**	**31.07**	**3.70**	**0.00**	**23.70**	**71.39**	**44.17**	**32.38**	**70.61**	**57.82**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	2.1709	0.0440	3.6239	6.2500e-003		0.4783	0.4783		0.4783	0.4783	41.8516	0.0284	41.8800	0.4254	0.0000	50.8125
Energy	0.0362	0.3289	0.2756	1.9700e-003		0.0250	0.0250		0.0250	0.0250	0.0000	804.6386	804.6386	0.0271	0.0107	808.5370
Mobile	0.8498	1.6337	7.0836	9.4400e-003	0.6433	0.0178	0.6611	0.1724	0.0163	0.1887	0.0000	753.8134	753.8134	0.0387	0.0000	754.6262
Waste						0.0000	0.0000		0.0000	0.0000	21.1232	0.0000	21.1232	1.2484	0.0000	47.3385
Water						0.0000	0.0000		0.0000	0.0000	2.2445	14.3846	16.6291	0.2312	5.5800e-003	23.2130
Total	**3.0569**	**2.0066**	**10.9831**	**0.0177**	**0.6433**	**0.5211**	**1.1644**	**0.1724**	**0.5196**	**0.6920**	**65.2193**	**1,572.8649**	**1,638.0842**	**1.9706**	**0.0163**	**1,684.5273**

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	1.1072	1.9000e-004	0.0170	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	0.0284	0.0284	4.0000e-005	0.0000	0.0292
Energy	0.0301	0.2737	0.2293	1.6400e-003		0.0208	0.0208		0.0208	0.0208	0.0000	696.5855	696.5855	0.0237	9.1900e-003	699.9335
Mobile	0.8404	1.5735	6.8984	9.0100e-003	0.6119	0.0170	0.6289	0.1640	0.0156	0.1796	0.0000	719.0980	719.0980	0.0372	0.0000	719.8798
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	1.9078	11.5987	13.5065	0.1965	4.7400e-003	19.1004
Total	**1.9777**	**1.8473**	**7.1447**	**0.0107**	**0.6119**	**0.0379**	**0.6498**	**0.1640**	**0.0365**	**0.2005**	**1.9078**	**1,427.3105**	**1,429.2183**	**0.2575**	**0.0139**	**1,438.9429**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**35.30**	**7.94**	**34.95**	**39.69**	**4.89**	**92.72**	**44.20**	**4.90**	**92.97**	**71.03**	**97.07**	**9.25**	**12.75**	**86.93**	**14.64**	**14.58**

2.3 Vegetation

Vegetation

	CO2e
Category	MT
Vegetation Land Change	0.0000
Total	**0.0000**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2015	1/14/2015	5	10	
2	Grading	Grading	1/15/2015	2/11/2015	5	20	
3	Building Construction	Building Construction	2/12/2015	12/30/2015	5	230	
4	Paving	Paving	12/31/2015	1/27/2016	5	20	
5	Architectural Coating	Architectural Coating	1/28/2016	2/24/2016	5	20	

Acres of Grading (Site Preparation Phase): 16.5

Acres of Grading (Grading Phase): 16.5

Acres of Paving: 0

Residential Indoor: 3,645; Residential Outdoor: 1,215; Non-Residential Indoor: 421,905; Non-Residential Outdoor: 140,635 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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
Site Preparation	7	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	14,375.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	117.00	46.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Replace Ground Cover

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2015

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					0.0991	0.0000	0.0991	0.0506	0.0000	0.0506	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0263	0.2845	0.2132	2.0000e-004		0.0154	0.0154		0.0142	0.0142	0.0000	18.6506	18.6506	5.5700e-003	0.0000	18.7675
Total	**0.0263**	**0.2845**	**0.2132**	**2.0000e-004**	**0.0991**	**0.0154**	**0.1145**	**0.0506**	**0.0142**	**0.0648**	**0.0000**	**18.6506**	**18.6506**	**5.5700e-003**	**0.0000**	**18.7675**

3.2 Site Preparation - 2015

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	4.8000e-004	7.4000e-004	6.6600e-003	1.0000e-005	8.7000e-004	1.0000e-005	8.7000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7663	0.7663	5.0000e-005	0.0000	0.7674
Total	**4.8000e-004**	**7.4000e-004**	**6.6600e-003**	**1.0000e-005**	**8.7000e-004**	**1.0000e-005**	**8.7000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7663**	**0.7663**	**5.0000e-005**	**0.0000**	**0.7674**

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					0.0386	0.0000	0.0386	0.0197	0.0000	0.0197	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.7600e-003	0.0973	0.1170	2.0000e-004		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004	0.0000	18.6505	18.6505	5.5700e-003	0.0000	18.7675
Total	**4.7600e-003**	**0.0973**	**0.1170**	**2.0000e-004**	**0.0386**	**7.2000e-004**	**0.0394**	**0.0197**	**7.2000e-004**	**0.0205**	**0.0000**	**18.6505**	**18.6505**	**5.5700e-003**	**0.0000**	**18.7675**

3.2 Site Preparation - 2015

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	4.8000e-004	7.4000e-004	6.6600e-003	1.0000e-005	8.7000e-004	1.0000e-005	8.7000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7663	0.7663	5.0000e-005	0.0000	0.7674
Total	**4.8000e-004**	**7.4000e-004**	**6.6600e-003**	**1.0000e-005**	**8.7000e-004**	**1.0000e-005**	**8.7000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7663**	**0.7663**	**5.0000e-005**	**0.0000**	**0.7674**

3.3 Grading - 2015

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					0.0796	0.0000	0.0796	0.0357	0.0000	0.0357	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0383	0.4042	0.2667	3.0000e-004		0.0233	0.0233		0.0214	0.0214	0.0000	28.3860	28.3860	8.4700e-003	0.0000	28.5639
Total	**0.0383**	**0.4042**	**0.2667**	**3.0000e-004**	**0.0796**	**0.0233**	**0.1028**	**0.0357**	**0.0214**	**0.0571**	**0.0000**	**28.3860**	**28.3860**	**8.4700e-003**	**0.0000**	**28.5639**

3.3 Grading - 2015

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	0.2012	2.6969	1.9877	5.4300e-003	0.1221	0.0403	0.1624	0.0335	0.0370	0.0705	0.0000	500.4234	500.4234	4.1700e-003	0.0000	500.5109
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	8.0000e-004	1.2300e-003	0.0111	2.0000e-005	1.4400e-003	1.0000e-005	1.4600e-003	3.8000e-004	1.0000e-005	4.0000e-004	0.0000	1.2772	1.2772	8.0000e-005	0.0000	1.2790
Total	**0.2020**	**2.6982**	**1.9988**	**5.4500e-003**	**0.1236**	**0.0403**	**0.1639**	**0.0339**	**0.0371**	**0.0709**	**0.0000**	**501.7006**	**501.7006**	**4.2500e-003**	**0.0000**	**501.7899**

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					0.0310	0.0000	0.0310	0.0139	0.0000	0.0139	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.2500e-003	0.1482	0.2038	3.0000e-004		1.1800e-003	1.1800e-003		1.1800e-003	1.1800e-003	0.0000	28.3859	28.3859	8.4700e-003	0.0000	28.5639
Total	**7.2500e-003**	**0.1482**	**0.2038**	**3.0000e-004**	**0.0310**	**1.1800e-003**	**0.0322**	**0.0139**	**1.1800e-003**	**0.0151**	**0.0000**	**28.3859**	**28.3859**	**8.4700e-003**	**0.0000**	**28.5639**

3.3 Grading - 2015

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	0.2012	2.6969	1.9877	5.4300e-003	0.1221	0.0403	0.1624	0.0335	0.0370	0.0705	0.0000	500.4234	500.4234	4.1700e-003	0.0000	500.5109
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	8.0000e-004	1.2300e-003	0.0111	2.0000e-005	1.4400e-003	1.0000e-005	1.4600e-003	3.8000e-004	1.0000e-005	4.0000e-004	0.0000	1.2772	1.2772	8.0000e-005	0.0000	1.2790
Total	**0.2020**	**2.6982**	**1.9988**	**5.4500e-003**	**0.1236**	**0.0403**	**0.1639**	**0.0339**	**0.0371**	**0.0709**	**0.0000**	**501.7006**	**501.7006**	**4.2500e-003**	**0.0000**	**501.7899**

3.4 Building Construction - 2015

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	0.4208	3.4534	2.1556	3.0800e-003		0.2434	0.2434		0.2289	0.2289	0.0000	280.5935	280.5935	0.0704	0.0000	282.0719
Total	**0.4208**	**3.4534**	**2.1556**	**3.0800e-003**		**0.2434**	**0.2434**		**0.2289**	**0.2289**	**0.0000**	**280.5935**	**280.5935**	**0.0704**	**0.0000**	**282.0719**

3.4 Building Construction - 2015

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	0.0735	0.4938	0.8080	9.0000e-004	0.0236	7.6500e-003	0.0312	6.7500e-003	7.0300e-003	0.0138	0.0000	82.1994	82.1994	8.0000e-004	0.0000	82.2162
Worker	0.0719	0.1101	0.9952	1.4600e-003	0.1295	1.1400e-003	0.1307	0.0344	1.0200e-003	0.0355	0.0000	114.5661	114.5661	7.4600e-003	0.0000	114.7227
Total	**0.1454**	**0.6039**	**1.8031**	**2.3600e-003**	**0.1531**	**8.7900e-003**	**0.1619**	**0.0412**	**8.0500e-003**	**0.0492**	**0.0000**	**196.7655**	**196.7655**	**8.2600e-003**	**0.0000**	**196.9389**

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	0.0772	1.6300	2.0488	3.0800e-003		0.0461	0.0461		0.0461	0.0461	0.0000	280.5932	280.5932	0.0704	0.0000	282.0716
Total	**0.0772**	**1.6300**	**2.0488**	**3.0800e-003**		**0.0461**	**0.0461**		**0.0461**	**0.0461**	**0.0000**	**280.5932**	**280.5932**	**0.0704**	**0.0000**	**282.0716**

3.4 Building Construction - 2015

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	0.0735	0.4938	0.8080	9.0000e-004	0.0236	7.6500e-003	0.0312	6.7500e-003	7.0300e-003	0.0138	0.0000	82.1994	82.1994	8.0000e-004	0.0000	82.2162
Worker	0.0719	0.1101	0.9952	1.4600e-003	0.1295	1.1400e-003	0.1307	0.0344	1.0200e-003	0.0355	0.0000	114.5661	114.5661	7.4600e-003	0.0000	114.7227
Total	**0.1454**	**0.6039**	**1.8031**	**2.3600e-003**	**0.1531**	**8.7900e-003**	**0.1619**	**0.0412**	**8.0500e-003**	**0.0492**	**0.0000**	**196.7655**	**196.7655**	**8.2600e-003**	**0.0000**	**196.9389**

3.5 Paving - 2015

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	1.1600e-003	0.0126	7.4900e-003	1.0000e-005		7.1000e-004	7.1000e-004		6.5000e-004	6.5000e-004	0.0000	1.0614	1.0614	3.2000e-004	0.0000	1.0680
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.1600e-003**	**0.0126**	**7.4900e-003**	**1.0000e-005**		**7.1000e-004**	**7.1000e-004**		**6.5000e-004**	**6.5000e-004**	**0.0000**	**1.0614**	**1.0614**	**3.2000e-004**	**0.0000**	**1.0680**

3.5 Paving - 2015

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	6.0000e-005	5.5000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0639	0.0639	0.0000	0.0000	0.0640
Total	**4.0000e-005**	**6.0000e-005**	**5.5000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0639**	**0.0639**	**0.0000**	**0.0000**	**0.0640**

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	2.7000e-004	5.5300e-003	8.4600e-003	1.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	1.0614	1.0614	3.2000e-004	0.0000	1.0680
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.7000e-004**	**5.5300e-003**	**8.4600e-003**	**1.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**1.0614**	**1.0614**	**3.2000e-004**	**0.0000**	**1.0680**

3.5 Paving - 2015

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	6.0000e-005	5.5000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0639	0.0639	0.0000	0.0000	0.0640
Total	**4.0000e-005**	**6.0000e-005**	**5.5000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0639**	**0.0639**	**0.0000**	**0.0000**	**0.0640**

3.5 Paving - 2016

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	0.0199	0.2127	0.1408	2.1000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	19.9631	19.9631	6.0200e-003	0.0000	20.0896
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0199**	**0.2127**	**0.1408**	**2.1000e-004**		**0.0120**	**0.0120**		**0.0110**	**0.0110**	**0.0000**	**19.9631**	**19.9631**	**6.0200e-003**	**0.0000**	**20.0896**

3.5 Paving - 2016

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	6.5000e-004	1.0200e-003	9.0700e-003	2.0000e-005	1.3700e-003	1.0000e-005	1.3800e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.1700	1.1700	7.0000e-005	0.0000	1.1715
Total	**6.5000e-004**	**1.0200e-003**	**9.0700e-003**	**2.0000e-005**	**1.3700e-003**	**1.0000e-005**	**1.3800e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.1700**	**1.1700**	**7.0000e-005**	**0.0000**	**1.1715**

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	5.2200e-003	0.1051	0.1608	2.1000e-004		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	19.9631	19.9631	6.0200e-003	0.0000	20.0896
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.2200e-003**	**0.1051**	**0.1608**	**2.1000e-004**		**8.5000e-004**	**8.5000e-004**		**8.5000e-004**	**8.5000e-004**	**0.0000**	**19.9631**	**19.9631**	**6.0200e-003**	**0.0000**	**20.0896**

3.5 Paving - 2016

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	6.5000e-004	1.0200e-003	9.0700e-003	2.0000e-005	1.3700e-003	1.0000e-005	1.3800e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.1700	1.1700	7.0000e-005	0.0000	1.1715
Total	**6.5000e-004**	**1.0200e-003**	**9.0700e-003**	**2.0000e-005**	**1.3700e-003**	**1.0000e-005**	**1.3800e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.1700**	**1.1700**	**7.0000e-005**	**0.0000**	**1.1715**

3.6 Architectural Coating - 2016

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	3.2874					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6800e-003	0.0237	0.0188	3.0000e-005		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	2.5533	2.5533	3.0000e-004	0.0000	2.5596
Total	**3.2911**	**0.0237**	**0.0188**	**3.0000e-005**		**1.9700e-003**	**1.9700e-003**		**1.9700e-003**	**1.9700e-003**	**0.0000**	**2.5533**	**2.5533**	**3.0000e-004**	**0.0000**	**2.5596**

3.6 Architectural Coating - 2016

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	1.0500e-003	1.6400e-003	0.0146	2.0000e-005	2.2100e-003	2.0000e-005	2.2300e-003	5.9000e-004	2.0000e-005	6.0000e-004	0.0000	1.8884	1.8884	1.1000e-004	0.0000	1.8908
Total	**1.0500e-003**	**1.6400e-003**	**0.0146**	**2.0000e-005**	**2.2100e-003**	**2.0000e-005**	**2.2300e-003**	**5.9000e-004**	**2.0000e-005**	**6.0000e-004**	**0.0000**	**1.8884**	**1.8884**	**1.1000e-004**	**0.0000**	**1.8908**

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	3.2874					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9000e-004	0.0136	0.0183	3.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	2.5533	2.5533	3.0000e-004	0.0000	2.5596
Total	**3.2880**	**0.0136**	**0.0183**	**3.0000e-005**		**9.5000e-004**	**9.5000e-004**		**9.5000e-004**	**9.5000e-004**	**0.0000**	**2.5533**	**2.5533**	**3.0000e-004**	**0.0000**	**2.5596**

3.6 Architectural Coating - 2016

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	1.0500e-003	1.6400e-003	0.0146	2.0000e-005	2.2100e-003	2.0000e-005	2.2300e-003	5.9000e-004	2.0000e-005	6.0000e-004	0.0000	1.8884	1.8884	1.1000e-004	0.0000	1.8908
Total	**1.0500e-003**	**1.6400e-003**	**0.0146**	**2.0000e-005**	**2.2100e-003**	**2.0000e-005**	**2.2300e-003**	**5.9000e-004**	**2.0000e-005**	**6.0000e-004**	**0.0000**	**1.8884**	**1.8884**	**1.1000e-004**	**0.0000**	**1.8908**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Walkability Design

Improve Pedestrian Network

Provide Traffic Calming Measures

	ROG	NOx	CO	SO2	Fugitive 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					
Unmitigated	0.8498	1.6337	7.0836	9.4400e-003	0.6433	0.0178	0.6611	0.1724	0.0163	0.1887	0.0000	753.8134	753.8134	0.0387	0.0000	754.6262
Mitigated	0.8404	1.5735	6.8984	9.0100e-003	0.6119	0.0170	0.6289	0.1640	0.0156	0.1796	0.0000	719.0980	719.0980	0.0372	0.0000	719.8798

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	2.00	2.00	2.00	4,065	3,866
Convenience Market (24 Hour)	269.00	269.00	269.00	143,788	136,753
General Light Industry	30.00	30.00	30.00	99,011	94,167
General Office Building	173.96	173.96	173.96	395,735	376,375
High Turnover (Sit Down Restaurant)	216.90	216.90	216.90	191,742	182,361
Hotel	163.40	163.80	163.80	263,468	250,578
Single Family Housing	9.57	10.08	8.77	24,217	23,033
User Defined Recreational	364.50	364.50	364.50	587,312	558,579
Total	1,229.33	1,230.24	1,228.93	1,709,338	1,625,711

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
City Park	13.00	5.00	5.00	33.00	48.00	19.00	66	28	6
Convenience Market (24 Hour)	13.00	5.00	5.00	0.90	80.10	19.00	24	15	61
General Light Industry	13.00	5.00	5.00	59.00	28.00	13.00	92	5	3
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	13.00	5.00	5.00	8.50	72.50	19.00	37	20	43
Hotel	13.00	5.00	5.00	19.40	61.60	19.00	58	38	4
Single Family Housing	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
User Defined Recreational	13.00	5.00	5.00	19.40	61.60	19.00	58	38	4

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.455937	0.042338	0.214948	0.150714	0.068093	0.009944	0.017510	0.022507	0.002330	0.001401	0.008743	0.000855	0.004680

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive 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					
NaturalGas Mitigated	0.0301	0.2737	0.2293	1.6400e-003		0.0208	0.0208		0.0208	0.0208	0.0000	298.0111	298.0111	5.7100e-003	5.4600e-003	299.8248
NaturalGas Unmitigated	0.0362	0.3289	0.2756	1.9700e-003		0.0250	0.0250		0.0250	0.0250	0.0000	358.1336	358.1336	6.8600e-003	6.5700e-003	360.3131
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	398.5743	398.5743	0.0180	3.7300e-003	400.1087
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	446.5050	446.5050	0.0202	4.1800e-003	448.2239

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					
City Park	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
Convenience Market (24 Hour)	4980	3.0000e-005	2.4000e-004	2.1000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2658	0.2658	1.0000e-005	0.0000	0.2674
General Light Industry	274100	1.4800e-003	0.0134	0.0113	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	14.6270	14.6270	2.8000e-004	2.7000e-004	14.7160
General Office Building	272076	1.4700e-003	0.0133	0.0112	8.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.0000	14.5190	14.5190	2.8000e-004	2.7000e-004	14.6074
High Turnover (Sit Down Restaurant)	633120	3.4100e-003	0.0310	0.0261	1.9000e-004		2.3600e-003	2.3600e-003		2.3600e-003	2.3600e-003	0.0000	33.7857	33.7857	6.5000e-004	6.2000e-004	33.9913
Hotel	371040	2.0000e-003	0.0182	0.0153	1.1000e-004		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003	0.0000	19.8001	19.8001	3.8000e-004	3.6000e-004	19.9206
Single Family Housing	35283	1.9000e-004	1.6300e-003	6.9000e-004	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8828	1.8828	4.0000e-005	3.0000e-005	1.8943
User Defined Recreational	5.12057e+006	0.0276	0.2510	0.2109	1.5100e-003		0.0191	0.0191		0.0191	0.0191	0.0000	273.2532	273.2532	5.2400e-003	5.0100e-003	274.9162
Total		**0.0362**	**0.3289**	**0.2756**	**1.9800e-003**		**0.0250**	**0.0250**		**0.0250**	**0.0250**	**0.0000**	**358.1336**	**358.1336**	**6.8800e-003**	**6.5600e-003**	**360.3132**

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	tons/yr										MT/yr					
Convenience Market (24 Hour)	3984	2.0000e-005	2.0000e-004	1.6000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.2126	0.2126	0.0000	0.0000	0.2139
General Light Industry	232620	1.2500e-003	0.0114	9.5800e-003	7.0000e-005		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004	0.0000	12.4135	12.4135	2.4000e-004	2.3000e-004	12.4890
General Office Building	217850	1.1700e-003	0.0107	8.9700e-003	6.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	11.6253	11.6253	2.2000e-004	2.1000e-004	11.6961
High Turnover (Sit Down Restaurant)	594978	3.2100e-003	0.0292	0.0245	1.7000e-004		2.2200e-003	2.2200e-003		2.2200e-003	2.2200e-003	0.0000	31.7503	31.7503	6.1000e-004	5.8000e-004	31.9435
Hotel	304432	1.6400e-003	0.0149	0.0125	9.0000e-005		1.1300e-003	1.1300e-003		1.1300e-003	1.1300e-003	0.0000	16.2457	16.2457	3.1000e-004	3.0000e-004	16.3445
Single Family Housing	29401.7	1.6000e-004	1.3500e-003	5.8000e-004	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5690	1.5690	3.0000e-005	3.0000e-005	1.5785
User Defined Recreational	4.20125e+006	0.0227	0.2059	0.1730	1.2400e-003		0.0157	0.0157		0.0157	0.0157	0.0000	224.1948	224.1948	4.3000e-003	4.1100e-003	225.5592
City Park	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
Total		**0.0301**	**0.2737**	**0.2293**	**1.6400e-003**		**0.0208**	**0.0208**		**0.0208**	**0.0208**	**0.0000**	**298.0111**	**298.0111**	**5.7100e-003**	**5.4600e-003**	**299.8248**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Convenience Market (24 Hour)	23380	6.8015	3.1000e-004	6.0000e-005	6.8277
General Light Industry	90300	26.2693	1.1900e-003	2.5000e-004	26.3704
General Office Building	311418	90.5951	4.1000e-003	8.5000e-004	90.9438
High Turnover (Sit Down Restaurant)	102870	29.9261	1.3500e-003	2.8000e-004	30.0413
Hotel	67520	19.6423	8.9000e-004	1.8000e-004	19.7180
Single Family Housing	7072.94	2.0576	9.0000e-005	2.0000e-005	2.0655
User Defined Recreational	932287	271.2131	0.0123	2.5400e-003	272.2572
Total		**446.5050**	**0.0202**	**4.1800e-003**	**448.2239**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Convenience Market (24 Hour)	20227.2	5.8843	2.7000e-004	6.0000e-005	5.9070
General Light Industry	81048	23.5778	1.0700e-003	2.2000e-004	23.6686
General Office Building	276696	80.4940	3.6400e-003	7.5000e-004	80.8039
High Turnover (Sit Down Restaurant)	96372	28.0357	1.2700e-003	2.6000e-004	28.1437
Hotel	60038.4	17.4659	7.9000e-004	1.6000e-004	17.5331
Single Family Housing	6741.8	1.9613	9.0000e-005	2.0000e-005	1.9688
User Defined Recreational	828965	241.1554	0.0109	2.2600e-003	242.0837
Total		**398.5743**	**0.0180**	**3.7300e-003**	**400.1087**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive 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	1.1072	1.9000e-004	0.0170	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	0.0284	0.0284	4.0000e-005	0.0000	0.0292
Unmitigated	2.1709	0.0440	3.6239	6.2500e-003		0.4783	0.4783		0.4783	0.4783	41.8516	0.0284	41.8800	0.4254	0.0000	50.8125

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	0.3287					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0131					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.8283	0.0438	3.6069	6.2500e-003		0.4782	0.4782		0.4782	0.4782	41.8516	0.0000	41.8516	0.4253	0.0000	50.7833
Landscaping	7.5000e-004	1.9000e-004	0.0170	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	0.0284	0.0284	4.0000e-005	0.0000	0.0292
Total	**2.1709**	**0.0440**	**3.6239**	**6.2500e-003**		**0.4783**	**0.4783**		**0.4783**	**0.4783**	**41.8516**	**0.0284**	**41.8800**	**0.4254**	**0.0000**	**50.8125**

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	0.0934					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0131					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	7.5000e-004	1.9000e-004	0.0170	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	0.0284	0.0284	4.0000e-005	0.0000	0.0292
Total	**1.1072**	**1.9000e-004**	**0.0170**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**	**0.0000**	**0.0284**	**0.0284**	**4.0000e-005**	**0.0000**	**0.0292**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	16.6291	0.2312	5.5800e-003	23.2130
Mitigated	13.5065	0.1965	4.7400e-003	19.1004

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.19148	1.2132	5.0000e-005	1.0000e-005	1.2178
Convenience Market (24 Hour)	0.148145 / 0.0907986	0.3727	4.8400e-003	1.2000e-004	0.5106
General Light Industry	2.3125 / 0	4.3738	0.0755	1.8100e-003	6.5218
General Office Building	2.80819 / 1.72115	7.0638	0.0918	2.2200e-003	9.6790
High Turnover (Sit Down Restaurant)	0.910601 / 0.0581235	1.7815	0.0297	7.1000e-004	2.6275
Hotel	0.78637 / 0.0873744	1.5763	0.0257	6.2000e-004	2.3071
Single Family Housing	0.065154 / 0.0410754	0.1651	2.1300e-003	5.0000e-005	0.2257
User Defined Recreational	0.0438 / 0	0.0828	1.4300e-003	3.0000e-005	0.1235
Total		**16.6291**	**0.2312**	**5.5700e-003**	**23.2130**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.07233	1.0918	5.0000e-005	1.0000e-005	1.0960
Convenience Market (24 Hour)	0.125923 / 0.0817187	0.3048	4.1200e-003	1.0000e-004	0.4220
General Light Industry	1.96563 / 0	3.4593	0.0642	1.5400e-003	5.2841
General Office Building	2.38696 / 1.54904	5.7780	0.0780	1.8800e-003	8.0001
High Turnover (Sit Down Restaurant)	0.774011 / 0.0523111	1.4155	0.0253	6.1000e-004	2.1342
Hotel	0.668414 / 0.078637	1.2564	0.0218	5.2000e-004	1.8772
Single Family Housing	0.0553809 / 0.0369678	0.1351	1.8100e-003	4.0000e-005	0.1867
User Defined Recreational	0.03723 / 0	0.0655	1.2200e-003	3.0000e-005	0.1001
Total		**13.5065**	**0.1965**	**4.7300e-003**	**19.1004**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	21.1232	1.2484	0.0000	47.3385

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.09	0.0183	1.0800e-003	0.0000	0.0409
Convenience Market (24 Hour)	6.01	1.2200	0.0721	0.0000	2.7340
General Light Industry	12.4	2.5171	0.1488	0.0000	5.6410
General Office Building	14.69	2.9819	0.1762	0.0000	6.6827
High Turnover (Sit Down Restaurant)	35.7	7.2468	0.4283	0.0000	16.2405
Hotel	16.97	3.4448	0.2036	0.0000	7.7199
Single Family Housing	1.23	0.2497	0.0148	0.0000	0.5596
User Defined Recreational	16.97	3.4448	0.2036	0.0000	7.7199
Total		**21.1233**	**1.2484**	**0.0000**	**47.3385**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park		0.0000	0.0000	0.0000	0.0000
Convenience Market (24 Hour)		0.0000	0.0000	0.0000	0.0000
General Light Industry		0.0000	0.0000	0.0000	0.0000
General Office Building		0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)		0.0000	0.0000	0.0000	0.0000
Hotel		0.0000	0.0000	0.0000	0.0000
Single Family Housing		0.0000	0.0000	0.0000	0.0000
User Defined Recreational		0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	0.0000	0.0000	0.0000	0.0000

10.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Others	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Port San Luis Harbor Terrace

San Luis Obispo County APCD Air District, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.40	0.02	0.00	0.51	0.51	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.61	0.45	0.03	0.00	0.78	0.77	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.13	0.08	0.03	0.00	0.35	0.35	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.72	0.51	-0.13	0.00	0.93	0.92	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.80	0.66	0.44	0.00	0.95	0.95	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	Tier 3	1	1	No Change	0.00
Cranes	Diesel	Tier 3	1	1	Level 3	0.00
Excavators	Diesel	Tier 3	1	1	Level 3	0.00
Forklifts	Diesel	Tier 3	3	3	Level 3	0.00
Generator Sets	Diesel	Tier 3	1	1	No Change	0.00
Graders	Diesel	Tier 3	1	1	Level 3	0.00
Pavers	Diesel	Tier 3	2	2	Level 3	0.00
Paving Equipment	Diesel	Tier 3	2	2	Level 3	0.00
Rollers	Diesel	Tier 3	2	2	Level 3	0.00
Rubber Tired Dozers	Diesel	Tier 3	4	4	Level 3	0.00
Tractors/Loaders/Backhoes	Diesel	Tier 3	10	10	Level 3	0.00
Welders	Diesel	Tier 3	1	1	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	3.68000E-003	2.37200E-002	1.88400E-002	3.00000E-005	1.97000E-003	1.97000E-003	0.00000E+000	2.55325E+000	2.55325E+000	3.00000E-004	0.00000E+000	2.55958E+000
Cranes	7.46900E-002	8.86500E-001	3.08620E-001	5.70000E-004	4.04700E-002	3.72300E-002	0.00000E+000	5.40733E+001	5.40733E+001	1.61400E-002	0.00000E+000	5.44123E+001
Excavators	4.17000E-003	4.86500E-002	3.43900E-002	5.00000E-005	2.40000E-003	2.21000E-003	0.00000E+000	5.03991E+000	5.03991E+000	1.50000E-003	0.00000E+000	5.07151E+000
Forklifts	8.32300E-002	7.14940E-001	4.40110E-001	5.30000E-004	6.00600E-002	5.52500E-002	0.00000E+000	5.01914E+001	5.01914E+001	1.49800E-002	0.00000E+000	5.05061E+001
Generator Sets	8.20800E-002	6.01260E-001	4.41140E-001	7.60000E-004	4.37500E-002	4.37500E-002	0.00000E+000	6.49989E+001	6.49989E+001	6.63000E-003	0.00000E+000	6.51382E+001
Graders	1.06200E-002	1.08680E-001	4.98100E-002	6.00000E-005	6.11000E-003	5.62000E-003	0.00000E+000	5.96081E+000	5.96081E+000	1.78000E-003	0.00000E+000	5.99818E+000
Pavers	8.08000E-003	9.08700E-002	5.70700E-002	9.00000E-005	4.52000E-003	4.16000E-003	0.00000E+000	8.51416E+000	8.51416E+000	2.57000E-003	0.00000E+000	8.56807E+000
Paving Equipment	6.17000E-003	7.18800E-002	5.08800E-002	8.00000E-005	3.56000E-003	3.28000E-003	0.00000E+000	7.56399E+000	7.56399E+000	2.28000E-003	0.00000E+000	7.61187E+000
Rollers	6.77000E-003	6.25100E-002	4.03000E-002	5.00000E-005	4.61000E-003	4.24000E-003	0.00000E+000	4.94634E+000	4.94634E+000	1.49000E-003	0.00000E+000	4.97765E+000
Rubber Tired Dozers	3.18300E-002	3.59680E-001	2.74410E-001	2.20000E-004	1.67800E-002	1.54400E-002	0.00000E+000	2.11812E+001	2.11812E+001	6.32000E-003	0.00000E+000	2.13140E+001
Tractors/Loaders/ Backhoes	1.26810E-001	1.20768E+000	8.53510E-001	1.10000E-003	9.45300E-002	8.69600E-002	0.00000E+000	1.04539E+002	1.04539E+002	3.12100E-002	0.00000E+000	1.05195E+002
Welders	7.20000E-002	2.14670E-001	2.33520E-001	2.90000E-004	1.80500E-002	1.80500E-002	0.00000E+000	2.16454E+001	2.16454E+001	5.87000E-003	0.00000E+000	2.17686E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	5.90000E-004	1.35700E-002	1.83200E-002	3.00000E-005	9.50000E-004	9.50000E-004	0.00000E+000	2.55325E+000	2.55325E+000	3.00000E-004	0.00000E+000	2.55957E+000
Cranes	1.39600E-002	2.69850E-001	3.02420E-001	5.70000E-004	1.54000E-003	1.54000E-003	0.00000E+000	5.40732E+001	5.40732E+001	1.61400E-002	0.00000E+000	5.44122E+001
Excavators	1.30000E-003	2.51900E-002	4.01700E-002	5.00000E-005	1.80000E-004	1.80000E-004	0.00000E+000	5.03990E+000	5.03990E+000	1.50000E-003	0.00000E+000	5.07150E+000
Forklifts	1.30000E-002	2.96770E-001	4.00740E-001	5.30000E-004	3.12000E-003	3.12000E-003	0.00000E+000	5.01913E+001	5.01913E+001	1.49800E-002	0.00000E+000	5.05060E+001
Generator Sets	1.51300E-002	3.45450E-001	4.66480E-001	7.60000E-004	2.42100E-002	2.42100E-002	0.00000E+000	6.49988E+001	6.49988E+001	6.63000E-003	0.00000E+000	6.51381E+001
Graders	1.51000E-003	2.91900E-002	4.65500E-002	6.00000E-005	2.10000E-004	2.10000E-004	0.00000E+000	5.96080E+000	5.96080E+000	1.78000E-003	0.00000E+000	5.99817E+000
Pavers	2.22000E-003	4.29600E-002	6.85200E-002	9.00000E-005	3.10000E-004	3.10000E-004	0.00000E+000	8.51415E+000	8.51415E+000	2.57000E-003	0.00000E+000	8.56806E+000
Paving Equipment	1.98000E-003	3.83000E-002	6.10800E-002	8.00000E-005	2.80000E-004	2.80000E-004	0.00000E+000	7.56398E+000	7.56398E+000	2.28000E-003	0.00000E+000	7.61186E+000
Rollers	1.29000E-003	2.93800E-002	3.96800E-002	5.00000E-005	3.10000E-004	3.10000E-004	0.00000E+000	4.94633E+000	4.94633E+000	1.49000E-003	0.00000E+000	4.97765E+000
Rubber Tired Dozers	5.40000E-003	1.04340E-001	1.16930E-001	2.20000E-004	5.90000E-004	5.90000E-004	0.00000E+000	2.11812E+001	2.11812E+001	6.32000E-003	0.00000E+000	2.13140E+001
Tractors/Loaders/Backhoes	2.67300E-002	6.10290E-001	8.24110E-001	1.10000E-003	6.41000E-003	6.41000E-003	0.00000E+000	1.04539E+002	1.04539E+002	3.12100E-002	0.00000E+000	1.05194E+002
Welders	1.21800E-002	1.94390E-001	1.72140E-001	2.90000E-004	1.17600E-002	1.17600E-002	0.00000E+000	2.16454E+001	2.16454E+001	5.87000E-003	0.00000E+000	2.17686E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	8.39674E-001	4.27909E-001	2.76008E-002	0.00000E+000	5.17766E-001	5.17766E-001	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	3.90689E-006
Cranes	8.13094E-001	6.95601E-001	2.00894E-002	0.00000E+000	9.61947E-001	9.58636E-001	0.00000E+000	1.10961E-006	1.10961E-006	0.00000E+000	0.00000E+000	1.28647E-006
Excavators	6.88249E-001	4.82220E-001	-1.68072E-001	0.00000E+000	9.25000E-001	9.18552E-001	0.00000E+000	1.98416E-006	1.98416E-006	0.00000E+000	0.00000E+000	1.97180E-006
Forklifts	8.43806E-001	5.84902E-001	8.94549E-002	0.00000E+000	9.48052E-001	9.43529E-001	0.00000E+000	1.19542E-006	1.19542E-006	0.00000E+000	0.00000E+000	1.18798E-006
Generator Sets	8.15668E-001	4.25457E-001	-5.74421E-002	0.00000E+000	4.46629E-001	4.46629E-001	0.00000E+000	1.23079E-006	1.23079E-006	0.00000E+000	0.00000E+000	1.22816E-006
Graders	8.57815E-001	7.31413E-001	6.54487E-002	0.00000E+000	9.65630E-001	9.62633E-001	0.00000E+000	1.67762E-006	1.67762E-006	0.00000E+000	0.00000E+000	1.66717E-006
Pavers	7.25248E-001	5.27237E-001	-2.00631E-001	0.00000E+000	9.31416E-001	9.25481E-001	0.00000E+000	1.17451E-006	1.17451E-006	0.00000E+000	0.00000E+000	1.16712E-006
Paving Equipment	6.79092E-001	4.67168E-001	-2.00472E-001	0.00000E+000	9.21348E-001	9.14634E-001	0.00000E+000	1.32205E-006	1.32205E-006	0.00000E+000	0.00000E+000	1.31374E-006
Rollers	8.09453E-001	5.29995E-001	1.53846E-002	0.00000E+000	9.32755E-001	9.26887E-001	0.00000E+000	2.02170E-006	2.02170E-006	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	8.30349E-001	7.09909E-001	5.73886E-001	0.00000E+000	9.64839E-001	9.61788E-001	0.00000E+000	9.44234E-007	9.44234E-007	0.00000E+000	0.00000E+000	1.40753E-006
Tractors/Loaders/Backhoes	7.89212E-001	4.94659E-001	3.44460E-002	0.00000E+000	9.32191E-001	9.26288E-001	0.00000E+000	1.24355E-006	1.24355E-006	0.00000E+000	0.00000E+000	1.14074E-006
Welders	8.30833E-001	9.44706E-002	2.62847E-001	0.00000E+000	3.48476E-001	3.48476E-001	0.00000E+000	1.38598E-006	1.38598E-006	0.00000E+000	0.00000E+000	1.37813E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
Yes	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
Yes	Water Exposed Area	PM10 Reduction	61.00	PM2.5 Reduction	61.00	Frequency (per day)	3.00
No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	0.00		

Yes	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.15	0.04	0.15	0.04	0.00	0.00
Grading	Fugitive Dust	0.08	0.04	0.03	0.01	0.61	0.61
Grading	Roads	0.12	0.03	0.12	0.03	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.10	0.05	0.04	0.02	0.61	0.61
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	71.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.73	10.73	10.70	10.77	10.73
Hearth	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0.00	100.00	100.00	0.00	100.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	1.11	3.69	2.61	4.56	4.27	4.28	0.00	4.61	4.61	3.80	0.00	4.60
Natural Gas	16.83	16.79	16.79	17.17	16.80	16.80	0.00	16.79	16.79	17.01	16.77	16.79
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	15.00	19.37	18.78	15.00	15.08	17.72
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting: Low Density Suburban

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00	0.00	0.00	
No	Land Use	Increase Diversity	0.09	0.30		
Yes	Land Use	Improve Walkability Design	-0.11	2.00		
No	Land Use	Improve Destination Accessibility	0.00	0.00		
No	Land Use	Increase Transit Accessibility	0.25	0.00		
No	Land Use	Integrate Below Market Rate Housing	0.00	0.00		
	Land Use	Land Use SubTotal	0.00			

Yes	Neighborhood Enhancements	Improve Pedestrian Network	1.00	Project Site		
Yes	Neighborhood Enhancements	Provide Traffic Calming Measures	0.75	100.00	50.00	
No	Neighborhood Enhancements	Implement NEV Network	0.01			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.05			
No	Parking Policy Pricing	Limit Parking Supply	0.00	0.00		
No	Parking Policy Pricing	Unbundle Parking Costs	0.00	0.00		
No	Parking Policy Pricing	On-street Market Pricing	0.00	0.00		
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00	0.00		
No	Transit Improvements	Expand Transit Network	0.00	0.00		
No	Transit Improvements	Increase Transit Frequency	0.00		0.00	
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.05			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"	3.00			
No	Commute	Workplace Parking Charge		0.00		
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program	5.00			
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.05			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
Yes	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
Yes	Use Low VOC Paint (Residential Interior)	71.00
Yes	Use Low VOC Paint (Residential Exterior)	71.00
Yes	Use Low VOC Paint (Non-residential Interior)	71.00
Yes	Use Low VOC Paint (Non-residential Exterior)	71.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Exceed Title 24	20.00	
Yes	Install High Efficiency Lighting	16.00	
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00

DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Apply Water Conservation on Strategy	15.00	10.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
Yes	Install low-flow bathroom faucet	32.00	
Yes	Install low-flow Kitchen faucet	18.00	
Yes	Install low-flow Toilet	20.00	
Yes	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
Yes	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

APPENDIX D.
BIOLOGICAL RESOURCES
BACKGROUND INFORMATION

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad is (Port San Luis (3512027) or Pismo Beach (3512026) or San Luis Obispo (3512036) or Morro Bay South (3512037) or Lopez Mtn. (3512035) or Oceano (3512015) or Arroyo Grande NE (3512025))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Ablautus schlingeri Oso Flaco robber fly	IIDIP42010	None	None	G1	S1	
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S3	WL
Accipiter striatus sharp-shinned hawk	ABNKC12020	None	None	G5	S3	WL
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	None	G2G3	S1S2	SSC
Agrostis hooveri Hoover's bent grass	PMPOA040M0	None	None	G2	S2	1B.2
Anniella pulchra nigra black legless lizard	ARACC01011	None	None	G3G4T2T3Q	S2	SSC
Anniella pulchra pulchra silvery legless lizard	ARACC01012	None	None	G3G4T3T4Q	S3	SSC
Antrozous pallidus pallid bat	AMACC10010	None	None	G5	S3	SSC
Arctostaphylos cruzensis Arroyo de la Cruz manzanita	PDERI040B0	None	None	G3	S3	1B.2
Arctostaphylos luciana Santa Lucia manzanita	PDERI040N0	None	None	G3	S3	1B.2
Arctostaphylos morroensis Morro manzanita	PDERI040S0	Threatened	None	G2	S2	1B.1
Arctostaphylos osoensis Oso manzanita	PDERI042S0	None	None	G1	S1	1B.2
Arctostaphylos pechoensis Pecho manzanita	PDERI04140	None	None	G2	S2	1B.2
Arctostaphylos pilosula Santa Margarita manzanita	PDERI04160	None	None	G3	S3	1B.2
Arctostaphylos rudis sand mesa manzanita	PDERI041E0	None	None	G2	S2	1B.2
Arctostaphylos tomentosa ssp. daciticola dacite manzanita	PDERI041HD	None	None	G4T1	S1	1B.1
Arenaria paludicola marsh sandwort	PDCAR040L0	Endangered	Endangered	G1	S1	1B.1
Areniscythris brachypteris Oso Flaco flightless moth	IILEG49010	None	None	G1	S1	
Astragalus didymocarpus var. milesianus Miles' milk-vetch	PDFAB0F2X3	None	None	G5T2	S2	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Atriplex coulteri Coulter's saltbush	PDCHE040E0	None	None	G2	S2	1B.2
Atriplex joaquinana San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S2S3	
Bryoria spiralifera twisted horsehair lichen	NLTEST5460	None	None	G3	S1S2	1B.1
Buteo regalis ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
Calochortus obispoensis San Luis mariposa-lily	PMLIL0D110	None	None	G2	S2	1B.2
Calochortus simulans La Panza mariposa-lily	PMLIL0D170	None	None	G2	S2	1B.3
Calystegia subacaulis ssp. episcopalis Cambria morning-glory	PDCON040J1	None	None	G3T3	S3	4.2
Camissoniopsis hardhamiae Hardham's evening-primrose	PDONA030N0	None	None	G1Q	S1	1B.2
Carex obispoensis San Luis Obispo sedge	PMCYP039J0	None	None	G2G3	S2S3	1B.2
Castilleja densiflora var. obispoensis San Luis Obispo owl's-clover	PDSCR0D453	None	None	G5T2	S2	1B.2
Central Dune Scrub Central Dune Scrub	CTT21320CA	None	None	G2	S2.2	
Central Foredunes Central Foredunes	CTT21220CA	None	None	G1	S1.2	
Central Maritime Chaparral Central Maritime Chaparral	CTT37C20CA	None	None	G2	S2.2	
Centromadia parryi ssp. congdonii Congdon's tarplant	PDAST4R0P1	None	None	G3T2	S2	1B.1
Charadrius alexandrinus nivosus western snowy plover	ABNNB03031	Threatened	None	G3T3	S2	SSC
Chenopodium littoreum coastal goosefoot	PDCHE091Z0	None	None	G2	S2	1B.2
Chlorogalum pomeridianum var. minus dwarf soaproot	PMLIL0G042	None	None	G5T2	S2	1B.2
Chloropyron maritimum ssp. maritimum salt marsh bird's-beak	PDSCR0J0C2	Endangered	Endangered	G4?T1	S1	1B.2
Chlosyne leanira elegans Oso Flaco patch butterfly	IILEPJA051	None	None	G4G5T1T2	S1S2	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Chorizanthe breweri Brewer's spineflower	PDPGN04050	None	None	G2	S2	1B.3
Chorizanthe rectispina straight-awned spineflower	PDPGN040N0	None	None	G1	S1	1B.3
Cicindela hirticollis gravida sandy beach tiger beetle	IICOL02101	None	None	G5T2	S1	
Cirsium fontinale var. obispoense San Luis Obispo fountain thistle	PDAST2E162	Endangered	Endangered	G2T2	S2	1B.2
Cirsium occidentale var. lucianum Cuesta Ridge thistle	PDAST2E1Z6	None	None	G3G4T2	S2	1B.2
Cirsium rhothophilum surf thistle	PDAST2E2J0	None	Threatened	G1	S1	1B.2
Cirsium scariosum var. loncholepis La Graciosa thistle	PDAST2E1N0	Endangered	Threatened	G5T1	S1	1B.1
Cladium californicum California saw-grass	PMCYP04010	None	None	G4	S2	2B.2
Cladonia firma popcorn lichen	NLT0008460	None	None	G4	S1	2B.1
Clarkia speciosa ssp. immaculata Pismo clarkia	PDONA05111	Endangered	Rare	G4T1	S1	1B.1
Coastal and Valley Freshwater Marsh Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	G3	S2.1	
Coastal Brackish Marsh Coastal Brackish Marsh	CTT52200CA	None	None	G2	S2.1	
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Proposed Threatened	Endangered	G5T3Q	S1	
Coelus globosus globose dune beetle	IICOL4A010	None	None	G1G2	S1S2	
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	Candidate Threatened	G3G4	S2S3	SSC
Danaus plexippus monarch butterfly	IILEPP2010	None	None	G5	S3	
Delphinium parryi ssp. blochmaniae dune larkspur	PDRAN0B1B1	None	None	G4T2	S2	1B.2
Delphinium parryi ssp. eastwoodiae Eastwood's larkspur	PDRAN0B1B2	None	None	G4T2	S2	1B.2
Dipodomys heermanni morroensis Morro Bay kangaroo rat	AMAFD03063	Endangered	Endangered	G3G4T1	S1	FP
Dithyrea maritima beach spectaclepod	PDBRA10020	None	Threatened	G2	S1	1B.1
Dudleya abramsii ssp. bettinae Betty's dudleya	PDCRA04011	None	None	G3T1	S1	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Dudleya abramsii ssp. murina mouse-gray dudleya	PDCRA04012	None	None	G3T2	S2	1B.3
Dudleya blochmaniae ssp. blochmaniae Blochman's dudleya	PDCRA04051	None	None	G2T2	S2	1B.1
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3	FP
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eremophila alpestris actia California horned lark	ABPAT02011	None	None	G5T3Q	S3	WL
Erigeron blochmaniae Blochman's leafy daisy	PDAST3M5J0	None	None	G2	S2	1B.2
Eriodictyon altissimum Indian Knob mountainbalm	PDHYD04010	Endangered	Endangered	G1	S1	1B.1
Eryngium aristulatum var. hooveri Hoover's button-celery	PDAPI0Z043	None	None	G5T1	S1	1B.1
Eucyclogobius newberryi tidewater goby	AFCQN04010	Endangered	None	G3	S2S3	SSC
Eumops perotis californicus western mastiff bat	AMACD02011	None	None	G5T4	S3?	SSC
Falco columbarius merlin	ABNKD06030	None	None	G5	S3	WL
Falco mexicanus prairie falcon	ABNKD06090	None	None	G5	S4	WL
Fritillaria viridea San Benito fritillary	PMLIL0V0L0	None	None	G2	S2	1B.2
Helminthoglypta walkeriana Morro shoulderband (=banded dune) snail	IMGASC2510	Endangered	None	G1	S1	
Horkelia cuneata var. puberula mesa horkelia	PDROS0W045	None	None	G4T1	S1	1B.1
Horkelia cuneata var. sericea Kellogg's horkelia	PDROS0W043	None	None	G4T2	S2?	1B.1
Lanius ludovicianus loggerhead shrike	ABPBR01030	None	None	G4	S4	SSC
Lasthenia glabrata ssp. coulteri Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G4T1	S1	FP
Layia jonesii Jones' layia	PDAST5N090	None	None	G2	S2	1B.2
Lichnanthe albipilosa white sand bear scarab beetle	IICOL67010	None	None	G1	S1	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Linderiella occidentalis California linderiella	ICBRA06010	None	None	G2G3	S2S3	
Lupinus ludovicianus San Luis Obispo County lupine	PDFAB2B2G0	None	None	G1	S1	1B.2
Lupinus nipomensis Nipomo Mesa lupine	PDFAB2B550	Endangered	Endangered	G1	S1	1B.1
Monardella palmeri Palmer's monardella	PDLAM180H0	None	None	G2	S2	1B.2
Monardella sinuata ssp. sinuata southern curly-leaved monardella	PDLAM18161	None	None	G3T2	S2	1B.2
Monardella undulata ssp. crispa crisp monardella	PDLAM18070	None	None	G3T2	S2	1B.2
Monardella undulata ssp. undulata San Luis Obispo monardella	PDLAM180X0	None	None	G2	S2	1B.2
Monolopia gracilens woodland woollythreads	PDAST6G010	None	None	G2G3	S2S3	1B.2
Nasturtium gambelii Gambel's water cress	PDBRA270V0	Endangered	Threatened	G1	S1	1B.1
Nemacaulis denudata var. denudata coast woolly-heads	PDPGN0G011	None	None	G3G4T2	S2	1B.2
Neotoma lepida intermedia San Diego desert woodrat	AMAFF08041	None	None	G5T3?	S3?	SSC
Northern Coastal Salt Marsh Northern Coastal Salt Marsh	CTT52110CA	None	None	G3	S3.2	
Northern Interior Cypress Forest Northern Interior Cypress Forest	CTT83220CA	None	None	G2	S2.2	
Nyctinomops macrotis big free-tailed bat	AMACD04020	None	None	G5	S2	SSC
Oncorhynchus mykiss irideus steelhead - south/central California coast DPS	AFCHA0209H	Threatened	None	G5T2Q	S2	SSC
Orobanche parishii ssp. brachyloba short-lobed broomrape	PDORO040A2	None	None	G4?T3	S3.2	4.2
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Plagiobothrys uncinatus hooked popcornflower	PDBOR0V170	None	None	G2	S2	1B.2
Plebejus icarioides moroensis Morro Bay blue butterfly	IILEPG801B	None	None	G5T2	S2	
Poa diaboli Diablo Canyon blue grass	PMPOA4Z390	None	None	G2	S2	1B.2
Polyphylla nubila Atascadero June beetle	IICOL68040	None	None	G1	S1	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Progne subis purple martin	ABPAU01010	None	None	G5	S3	SSC
Pyrgulopsis taylori San Luis Obispo pyrg	IMGASJ0A50	None	None	G1	S1	
Rallus longirostris obsoletus California clapper rail	ABNME05016	Endangered	Endangered	G5T1	S1	FP
Rana boylii foothill yellow-legged frog	AAABH01050	None	None	G3	S2S3	SSC
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Sanicula maritima adobe sanicle	PDAPI1Z0D0	None	Rare	G2	S2	1B.1
Scrophularia atrata black-flowered figwort	PDSCR1S010	None	None	G2G3	S2S3	1B.2
Senecio aphanactis chaparral ragwort	PDAST8H060	None	None	G3?	S2	2B.2
Serpentine Bunchgrass Serpentine Bunchgrass	CTT42130CA	None	None	G2	S2.2	
Sidalcea hickmanii ssp. anomala Cuesta Pass checkerbloom	PDMAL110A1	None	Rare	G3T1	S1	1B.2
Sternula antillarum browni California least tern	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2S3	FP
Streptanthus albidus ssp. peramoenus most beautiful jewelflower	PDBRA2G012	None	None	G2T2	S2	1B.2
Suaeda californica California seablite	PDCHE0P020	Endangered	None	G1	S1	1B.1
Sulcaria isidiifera splitting yarn lichen	NLTEST0020	None	None	G1	S1	1B.1
Symphyotrichum defoliatum San Bernardino aster	PDASTE80C0	None	None	G2	S2	1B.2
Taricha torosa Coast Range newt	AAAAF02032	None	None	G4	S4	SSC
Taxidea taxus American badger	AMAJF04010	None	None	G5	S4	SSC
Trifolium hydrophilum saline clover	PDFAB400R5	None	None	G2	S2	1B.2
Tropidocarpum capparideum caper-fruited tropidocarpum	PDBRA2R010	None	None	G1	S1	1B.1
Tryonia imitator mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	G2	S2	
Valley Needlegrass Grassland Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	

Record Count: 124

SNAME	CNAME	KQUADNAME	ACCURACY	SITEDATE	ELMDATE	FEDLIST	CALLIST	GRANK	SRANK	RPLANT	RANK	LOCATION	GENERAL
Anniella pulchra nigra	black legless lizard	Morro Bay South	nonspecific area	19840504	19840504	None	None	G3G4T2T3	S2			EDGE OF PREFUMO CANYON ROAD IN PREFUMO CANYON, SOUTHWEST OF SAN LUIS OBISPO.	THIS LOCATION IS BASED ON A SPECIMEN BY WOLF, COLL. IN 1970. IT IS PROBABLY AN OUTLYER AND IS NOT QUITE IN THE RIGHT HABITAT. MOST LIKELY REPRESENTS A SINGLE PLANT
Arctostaphylos morroensis	Morro manzanita	San Luis Obispo	1 mile	19700129	19700129	Threatened	None	G2	S2	1B.1			
Layia jonesii	Jones' layia	Pismo Beach	1 mile	19360327	19360327	None	None	G1	S1	1B.2		0.75 MILE SOUTHEAST OF MINE HILL, SOUTH OF SAN LUIS OBISPO.	
Central Maritime Chaparral	Central Maritime Chaparral	Pismo Beach	1 mile	1980XXXX	1980XXXX	None	None	G2	S2.2			INDIAN KNOB TAR SANDS, ABOUT 4 MILES NORTH OF PISMO BEACH, SOUTH OF SAN LUIS OBISPO.	MORE ECOLOGICAL INFO AND OWNERSHIP INFO IN NC ELF, VAN80R03. SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.
Arctostaphylos pilosula	Santa Margarita manzanita	Port San Luis	nonspecific area	19850316	19850316	None	None	G3	S3	1B.2		HIBBARD (HIBBERD?) NATURE PRESERVE, IMMEDIATELY ACROSS TRAIL NW OF CORRAL, 2.5 MILES FROM GATE.	ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1985 COLLECTION BY GRIFFITHS. NEEDS FIELDWORK. OWNED BY THE LAND CONSERVANCY OF SAN LUIS OBISPO COUNTY. THIS OCCURRENCE WAS PREVIOUSLY A WELLSII OCCURRENCE #21
Agrostis hooveri	Hoover's bent grass	Port San Luis	4/5 mile	19930708	19930708	None	None	G2	S2	1B.2		DEVILS RIDGE TO UPPER COON CREEK ROAD, IRISH HILLS.	IN 1996 CNPS INVENTORY 6 REVIEW COMMENTS, CLIFTON "FOUND IT IN ONE PLACE IN DIABLO CANYON". UNKNOWN NUMBER OF PLANTS SEEN IN 1993 AND 1996. OTHER RARE PLANT AT THIS SITE: ARCTOSTAPHYLOS PECHOENSIS. NEEDS FIELDWORK.
Rana draytonii	California red-legged frog	Pismo Beach	3/5 mile	19981206	19981206	Threatened	None	G2G3	S2S3			AVILA BEACH GOLF COURSE, 5 MILES SSW OF SAN LUIS OBISPO.	1 ADULT RLF OBSERVED ON 6 DEC 1998.
Arctostaphylos pechoensis	Pecho manzanita	Morro Bay South	3/5 mile	19671011	19671011	None	None	G2	S2	1B.2		NEAR THE DIVIDE BETWEEN PREFUMO CANYON AND SEE CANYON ON THE SEE CANYON SIDE.	BASED ON TWO 1967 COLLECTIONS BY GANKIN. A 1947 COLLECTION BY HOOVER FROM "ABOVE HEAD OF SEE CANYON" IS ALSO ATTRIBUTED TO THIS OCCURRENCE. NEEDS FIELDWORK
Delphinium parryi ssp. eastwoodiae	Eastwood's larkspur	Morro Bay South	3/5 mile	19790429	19790429	None	None	G4T2	S2	1B.2		SUMMIT AREA OF SEE CANYON ROAD AND PREFUMO CANYON ROAD, SAN LUIS OBISPO.	SITE BASED ON A 1979 KEIL COLLECTION; MENTIONED AS OCCASIONAL. A VAGUE 1972 EDGE COLLECTION FROM "SEE CANYON ROAD" IS ALSO ATTRIBUTED TO THIS SITE. NEEDS FIELDWORK. INCLUDES FORMER EO #8
Horkelia cuneata var. puberula	mesa horkelia	Pismo Beach	3/5 mile	19660517	19660517	None	None	G4T2	S2.1	1B.1		INDIAN KNOB RIDGE.	UNKNOWN NUMBER OF PLANTS SEEN IN 1966. NEEDS FIELDWORK.
Monardella sinuata ssp. sinuata	southern curly-leaved monardella	Pismo Beach	3/5 mile	19390804	19390804	None	None	G3T2	S2	1B.2		INDIAN KNOB.	ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1939 MIOSSI COLLECTION. DAVID KEIL MENTIONS THAT JULIE VANDERWIER DID NOT FIND THESE PLANTS IN HER FLORA OF INDIAN KNOB. NEEDS FIELDWORK.
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	Pismo Beach	2/5 mile	19360322	19360322	None	None	G5T2	S2	1B.2		0.6 MILE NNE OF SYCAMORE SPRINGS.	ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1936 COLLECTION BY CARLSON. NEEDS FIELDWORK.
Monolopia gracilens	woodland woollythreads	Port San Luis	nonspecific area	19080430	19080430	None	None	G2G3	S2S3	1B.2		PECHO CREEK.	ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1908 COLLECTION BY CONDIT. NEEDS FIELDWORK
Eucyclogobius newberryi	tidewater goby	Pismo Beach	nonspecific area	20080217	20080217	Endangered	None	G3	S2S3			SAN LUIS OBISPO CREEK, FROM MOUTH TO 2.5 MILES UPSTREAM, 1.5 MILES ENE OF POINT SAN LUIS.	CAS SU 653. GOBIES FOUND HERE IN 1894 & 1916. NOT FOUND AGAIN UNTIL 1989 (LACM 44824-1) DESPITE COLLECTING BY MANY INDIVIDUALS IN THE INTERVENING YEARS. COLLECTED IN 1995. GOBIES COMMON & FISH COLLECTED FOR GENETIC SAMPLES ON 15-17 FEB 2008
Eriodictyon altissimum	Indian Knob mountainbalm	Pismo Beach	specific area	20100829	20100829	Endangered	Endangered	G1	S1	1B.1		1.0 TO 1.3 AIR MILES NW OF THE SUMMIT OF INDIAN KNOB, SOUTH OF SAN LUIS OBISPO, EAST OF HIGHWAY 101.	500+ PLANTS OBSERVED IN 1991. 4 PLANTS OBSERVED IN 2010 IN A SMALL PORTION OF THIS OCCURRENCE.
Scrophularia atrata	black-flowered figwort	Pismo Beach	specific area	19900331	19900331	None	None	G2	S2.2	1B.2		MALLAGH LANDING, EAST OF AVILA BEACH ALONG CAVE LANDING ROAD.	14+ PLANTS OBSERVED IN 1991.
Clarkia speciosa ssp. immaculata	Pismo clarkia	Pismo Beach	nonspecific area	1993XXXX	1993XXXX	Endangered	Rare	G4T1	S1	1B.1		NORTHERN SLOPES OF GRAGG CANYON.	SEVERAL THOUSAND PLANTS IN CLUSTERS IN 1993. MAP DETAIL NEEDED; MAPPED FROM INFO RECEIVED IN 1997 FROM CLIFTON AND FOOTE (THEIR RECOLLECTIONS OF WHERE PLANTS WERE SEEN IN 1993). CLIFTON REMEMBERS FEWER THAN 1000 PLANTS
Oncorhynchus mykiss irideus	steelhead - south/central California coast DPS	Pismo Beach	nonspecific area	20030702	20030702	Threatened	None	G5T2Q	S2			DAVIS CANYON CREEK, 0.6 MI UPSTREAM FROM THE CONFLUENCE WITH SEE CANYON CREEK.	6 YOUNG OF THE YEAR AND AGE 1+ FISH OBSERVED 2 JUL 2003.
Neotoma lepida intermedia	San Diego desert woodrat	Port San Luis	specific area	19930416	19930416	None	None	G5T3?	S3?			0.75 MILE NE OF GREEN PEAK, 2 MILES EAST OF DIABLO CANYON NUCLEAR POWER PLANT.	1 ADULT MALE, 1 ADULT FEMALE, AND 1 JUVENILE FEMALE CAPTURED ON 15-16 APRIL 1993.
Calochortus obispoensis	San Luis mariposa-lily	Pismo Beach	specific area	19800202	19800202	None	None	G2	S2	1B.2		0.3 TO 0.6 AIR MILE WEST OF THE SUMMIT OF INDIAN KNOB, SOUTH OF SAN LUIS OBISPO, EAST OF HIGHWAY 101.	OBSERVED IN 1980 SURVEY OF CENTRAL MARITIME CHAPARRAL (J. VANDERWIER). MAP PROVIDED BY M. MCLEOD (1985); UNKNOWN WHEN SEEN MY MCLEOD
Dudleya abramsii ssp. murina	mouse-gray dudleya	Pismo Beach	specific area	20030527	20030527	None	None	G3T2	S2	1B.3		4 AIR MILES NORTH OF AVILA BEACH. NORTH SLOPE OF SEE CANYON.	100+ PLANTS SEEN IN EACH COLONY IN 2003. OTHER ASSOC RARE SPECIES INCLUDE: CASTILLEJA DENSIFLORA SSP. OBISPOENSIS, CALYSTEGIA SUBACAULIS SSP. EPISCOPALIS, CALOCHORTUS SIMULANS
Calochortus simulans	La Panza mariposa-lily	Pismo Beach	specific area	20030527	20030527	None	None	G2	S2	1B.3		ON LA QUINTA DE AVILA RANCH, 4.0 AIR MILES NORTH OF AVILA BEACH.	50 PLANTS OBSERVED IN 2003. A 2003 COLLECTION BY DART & ENGLAND FROM "LA QUINTA DE AVILA RANCH IN SEE CYN" IS ATTRIBUTED TO THIS SITE. OTHER NEARBY RARE SPECIES: CASTILLEJA DENSIFLORA SSP OBISPOENSIS, CALYSTEGIA SUBACAULIS SSP EPISCOPALIS
Calystegia subacaulis ssp. episcopalis	Cambria morning-glory	Pismo Beach	specific area	20030527	20030527	None	None	G3T3	S3		4.2	SEE CANYON, APPROXIMATELY 0.7 AIRMILE SOUTHWEST OF HEADWATERS OF FROOM CREEK.	A FEW HUNDRED PLANTS OBSERVED IN 2003. MANY RARE SPECIES OCCUR IN THIS VICINITY.
Chorizanthe breweri	Brewer's spineflower	Pismo Beach	80 meters	20030527	20030527	None	None	G2	S2	1B.3		SEE CANYON, APPROXIMATELY 0.7 AIRMILE SOUTHWEST OF HEADWATERS OF FROOM CREEK.	1000 PLANTS SEEN IN 2003. MANY OTHER RARE SPECIES IN THIS VICINITY, INCLUDING LOMATIUM PARVIFOLIUM, DUDLEYA ABRAMSII SSP. MURINA, CHORIZANTHE PALMERI, CALOCHORTUS OBISPOENSIS, C. CLAVATUS SSP. CLAVATUS, C. SIMULANS, CASTILLEJA DENSIFLORA

Emys marmorata	western pond turtle	Pismo Beach	80 meters	2003XXXX	2003XXXX	None	None	G3G4	S3		SEE CANYON CREEK, 3.4 MILES NORTHWEST OF THE JUNCTION OF SAN LUIS BAY DRIVE & HIGHWAY 101, SOUTHWEST OF SAN LUIS OBISPO.	1 ADULT OBSERVED DURING THE SPRING OF 2003.
Phrynosoma blainvillii	coast horned lizard	Pismo Beach	80 meters	20100829	20100829	None	None	G3G4	S3S4		0.4 MI S OF BALM RIDGE WAY AT BARON CANYON RANCH RD. 1 MI WNW OF INDIAN KNOB, ABOUT 1.2 MI E OF HWY 1.	3 ADULTS AND 4 JUVENILES WERE OBSERVED 29 AUG 2010. LIZARDS WERE FORAGING AROUND AN ANT HILL OR CROSSING THE SITE.
Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	Port San Luis	specific area	20080423	20080423	None	None	G2T2	S2.2	1B.2	RIDGE EAST OF THE HEAD OF SEE CANYON, IRISH HILLS, WEST OF SAN LUIS OBISPO.	100 PLANTS OBSERVED IN 2008.

Plant Species observed at the Port San Luis Harbor Terrace Project Site

Scientific Name	Common Name	Native
Vascular Plants nomenclature follows " The Jepson Manual" and http://ucjeps.berkeley.edu/interchange.html		
PTERIDOPHYTES		
Dryopteridaceae	***Wood fern Family***	
Dryopteris arguta	wood fern	Yes
GYMNOSPERMS		
Cupressaceae	***Cypress Family***	
Cupressus sempervirens	Italian cypress	No
Pinaceae	***Pine Family***	
Pinus sabiniana	gray pine	No
ANGIOSPERMS (EUDICOTS)		
Aizoaceae	***Fig-Marigold Family***	
Carpobrotus edulis	iceplant	No
Anacardiaceae	***Sumac Family***	
Toxicodendron diversilobum	poison oak	Yes
Schinus molle	Peruvian pepper tree	No
Apiaceae	***Carrot Family***	
Anthriscus caucalis	bur-chervil	No
Conium maculatum	poison hemlock	No
Daucus pusillus	rattle snake weed	Yes
Foeniculum vulgare	sweet fennel	No
Sanicula crassicaulis	sanicle	Yes
Asphodelaceae	***Asphodel Family***	
Asphodelus fistulosus	onionweed	No
Asteraceae	***Sunflower Family***	
Achillea millefolium	yarrow	Yes
Acroptilon repens	Russian knapweed	
Artemisia californica	California sagebrush	Yes
Baccharis pilularis	coyote brush	Yes
Carduus pycnocephalus	Italian thistle	No
Centaurea melitensis	tocalote	No
Centaurea solstitialis	yellow star thistle	No
Cirsium vulgare	bull thistle	No

Scientific Name	Common Name	Native
Pseudognaphalium californica	California everlasting	Yes
Hazardia squarrosa	saw toothed goldenbush	Yes
Heterotheca grandiflora	telegraph weed	Yes
Helminthotheca echioides	bristly ox-tongue	No
Hypochaeris glabra	smooth cat's ear	No
Hypochaeris radicata	rough cat's ear	No
Matricaria discoidea	pineapple weed	No
Pseudognaphalium luteoalbum	cudweed aster	No
Sonchus oleraceus	sow thistle	No
Silybum marianum	milk thistle	No
Taraxacum officinale	dandelion	No
Brassicaceae	***Mustard Family***	
Brassica nigra	black mustard	No
Hirschfeldia incana	short-pod mustard	No
Raphanus sativus	wild radish	No
Rorippa nasturtium-aquaticum	water cress	Yes
Caprifoliaceae	***Honeysuckle Family***	
Sambucus nigra	elderberry	Yes
Caryophyllaceae	***Pink Family***	
Silene gallica	catchfly	Yes
Convolvulaceae	***Morning-glory Family***	
Calystegia macrostegia ssp. *cyclostegia*	coast morning glory	Yes
Cucurbitaceae	***Gourd Family***	
Marah fabaceus var. *fabaceus*	wild cucumber	Yes
Euphorbiaceae	***Spurge Family***	
Croton californicus	croton	Yes
Ricinus communis	castor bean	No
Fabaceae	***Pea Family***	
Acmispon glaber	deerweed	Yes
Melilotus indica	sour clover	No
Genista monspessulana	French broom	No
Lupinus succulentus	arroyo lupine	No
Trifolium hirtum	rose clover	No
Trifolium sp.	clover	TBD

Scientific Name	Common Name	Native
Fagaceae	***Oak Family***	
Quercus agrifolia	coast live oak	Yes
Geraniaceae	***Geranium Family***	
Erodium botrys	filaree	No
Erodium cicutarium	red-stemmed filaree	No
Geranium dissectum	geranium	No
Lamiaceae	***Mint Family***	
Marrubium vulgare	horehound	No
Salvia mellifera	black sage	Yes
Salvia spathacea	hummingbird sage	Yes
Malvaceae	***Mallow Family***	
Malva parviflora	cheeseweed	No
Myrtaceae	***Myrtle Family***	
Eucalyptus globulus	blue-gum eucalyptus	Yes
Oxalidaceae	***Oxalis Family***	
Oxalis pes-caprae	Bermuda buttercup	No
Papaveraceae	***Poppy Family***	
Eschscholzia californica	California poppy	Yes
Phrymaceae	***Lopseed Family***	
Mimulus aurantiacus	sticky monkeyflower	Yes
Plantaginaceae	***Plantain Family***	
Plantago lanceolata	English plantain	No
Plantago major	plantain	No
Polygonaceae	***Buckwheat Family***	
Rumex acetosella	sheep sorrel	No
Rumex crispus	curly dock	No
Primulaceae	***Primrose Family***	
Anagallis arvensis	scarlet pimpernel	No
Rosaceae	***Rose Family***	
Heteromeles arbutifolia	toyon	Yes
Rhamnaceae	***Buckthorn Family***	
Frangula californica	coffeeberry	Yes
Rhamnus crocea	redberry	Yes

Scientific Name	Common Name	Native
Solanaceae	***Nightshade Family***	
Solanum douglasii	purple nightshade	Yes
Nicotiana glauca	tree tobacco	No
Tropaeolaceae	***Nasturtium Family***	
Tropaeolum majus	garden nasturtium	No
Verbenaceae	***Vervain Family***	
Verbena lasiostachys	western vervain	
ANGIOSPERMS (MONOCOTS)		
Agavaceae	***Agave Family***	
Chlorogalum pomeridianum	soap plant	Yes
Cyperaceae	***Sedge Family***	
Eleocharis macrostachya	spike rush	Yes
Iridaceae	***Iris Family***	
Sisyrinchium bellum	blue eyed grass	Yes
Juncaceae	***Rush Family***	
Juncus effusus	common rush	Yes
Liliaceae	***Lily Family***	
Dichelostemma capitatum	blue dicks	Yes
Poaceae	***Grass Family***	
Avena barbata	slender wild oats	No
Avena fatua	wild oats	No
Bromus diandrus	ripgut brome	No
Bromus madritensis ssp. *rubens*	red brome	No
Cortaderia selloana	pampas grass	No
Ehrharta calycina	veldt grass	No
Elymus condensatus	giant wild-rye	Yes
Festuca myuros	rattail fescue	No
Festuca perennis	rye grass	No
Lolium multiflorum	Italian ryegrass	No
Pennisetum clandestinum	kikuyu grass	No
Stipa lepida	foothill needle grass	Yes
Stipa pulchra	purple needle grass	Yes

APPENDIX E.
GEOLOGY AND SOILS
BACKGROUND INFORMATION

GEOLOGIC/GEOTECHNICAL HAZARDS STUDY
HARBOR TERRACE CAMPGROUND
PORT SAN LUIS
COUNTY OF SAN LUIS OBISPO, CALIFORNIA

August 22, 2014

Prepared for

Lisa Wise Consulting

Prepared by

Earth Systems Pacific
4378 Old Santa Fe Road
San Luis Obispo, CA 93401

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Earth Systems Pacific

4378 Old Santa Fe Road
San Luis Obispo, CA 93401-8116

(805) 544-3276 • FAX (805) 544-1786
E-mail: esp@earthsys.com

August 22, 2014

Ms. Lisa Wise
Lisa Wise Consulting
983 Osos Street
San Luis Obispo, CA 93401

FILE NO.: SL-15831-SC

PROJECT: HARBOR TERRACE CAMPGROUND
PORT SAN LUIS
COUNTY OF SAN LUIS OBISPO, CALIFORNIA

SUBJECT: GEOLOGIC/GEOTECHNICAL HAZARDS STUDY

REF: Proposal for Fault Investigation and Geologic/Geotechnical Hazards Study, Harbor Terrace Project, Port San Luis, California, by Earth Systems Pacific, Doc. No. 1308-129.PRP.REV2, dated August 23, 2013 (*Revised September 6, 2013*)

Dear Ms. Wise:

As per your authorization of the referenced proposal, this geologic/geotechnical hazards study for the referenced project has been completed. An evaluation of potential geologic/geotechnical hazards, potential impacts upon the project, and possible mitigation measures are presented herein. One electronic copy and two bound copies of the report are furnished for your use.

We appreciate the opportunity to have provided professional services for this project. If there are any questions concerning this report, please do not hesitate to contact the undersigned.

Sincerely,

Earth Systems Pacific

Dennis Shallenberger, GE
Principal Engineer
8/22/14

REGISTERED PROFESSIONAL ENGINEER
DENNIS C. SHALLENBERGER
No. GE 2158
GEOTECHNICAL
STATE OF CALIFORNIA

Richard T. Gorman, CEG
Associate Geologist

PROFESSIONAL GEOLOGIST
RICHARD T. GORMAN
No. CEG 1325
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

Doc. No.: 1408-158.RPT/tf

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APPENDICES

Appendix A Site Layout Plan (Lisa Wise Consulting)

Appendix B Geologic Map

1.0 INTRODUCTION

Harbor Terrace is an approximately 32-acre site situated on a hillside overlooking San Luis Obispo Bay in the Port San Luis Harbor District, County of San Luis Obispo, California. The site has supported a variety of land uses in the past, but currently is largely vacant of permanent structures. We understand that the Port San Luis Harbor District (the District) intends for the site to be developed with a mix of visitor-serving uses, reserving some areas for current and future District needs such as marine gear and boat storage.

Lisa Wise Consulting (LWC) was retained to assist the District with pre-development activities for the future construction of a low and moderate cost campground that will include a mix of hotel/motel units (cabins), tent sites, tent cabins, RV sites, other related amenities, commercial uses, and boat/equipment storage facilities. To this end, LWC has developed conceptual plans for site development; the conceptual site layout plan is presented in Appendix A. The plan includes the following components:

- 48,000 square feet of parking
- 80 RV sites
- 15 RV/RV cabins
- 31 hotel/motel units (cabins)
- 35 car/tent campsites
- 21 walk-in/bike-in sites
- 16,000 square feet of visitor-serving commercial uses, consisting of a building and a pool
- Area reserved for District's use:
    - 70 trailer boat storage spaces
    - 20 marine gear storage spaces
    - 1.05 acres of storage area
    - 10,000 square feet of expansion area

The grading concept, as presented on the conceptual site layout plan, indicates up to 37 feet of fill soil and cuts of up to 34 feet.

2.0 SCOPE OF SERVICES

The purpose of this geologic/geotechnical hazards study was to assess the major geologic/geotechnical issues that could potentially affect the project, thus providing a framework for continued project planning. The intent of this report is to provide information regarding the site features and geologic/geotechnical hazards that could constitute a constraint to the proposed campground as currently envisioned in the conceptual site layout plan, and to discuss potential mitigation measures for identified hazards. The scope of work for the study included research of geologic maps, review of existing geologic/geotechnical data contained in previous studies performed at the site, a site reconnaissance by a Certified Engineering Geologist and a Registered Geotechnical Engineer, and geologic/geotechnical evaluation of data with respect to the project as currently proposed. No subsurface exploration or laboratory testing was performed. The analysis and subsequent conclusions were based, in part, upon verbal information and the conceptual site layout plan provided by Ms. Lisa Wise and Ms. Menka Sethi of LWC. It is recognized that this plan may be subject to change; however, it is referred to in this report in discussions of various site features and potential geologic/geotechnical hazards.

In the event that there are any changes in the proposed development concept or layout, 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 this firm in writing. Please note that this report is not intended as a design-level geotechnical engineering report, or as an in-depth geologic investigation to address specific geologic conditions at the site. Further studies will be necessary as indicated later in this report. The conclusions presented in this report are considered preliminary until such time as they are modified or verified by additional geologic and geotechnical investigation.

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 fill soils during compaction, excavation techniques/equipment, dewatering, shoring, temporary slope angles, construction means and methods, etc. Evaluation or analyses of the soil for corrosivity, radioisotopes, hydrocarbons, or other chemical properties are beyond the scope of this report, as well as assessment of the site for mold or lead potential. Ancillary features such as temporary access roads, fences, flagpoles, signage, and nonstructural fills are not within our scope and are also not addressed.

3.0 BACKGROUND

According to past reports prepared for the property, the site was originally graded by Union Oil Company in the early 1900s, and used by Union Oil Company and Standard Oil Company as an oil storage facility. It was later purchased by the Marre family, and additional grading was conducted prior to the construction of a trailer park. In the early 1970s, the site was graded for the proposed Port San Luis Marina Village, a project that was never completed. Additional projects were proposed in the 1980s and the 1990s, but also not constructed. Consequently, the property has remained largely undeveloped, with the exception of the trailer park, an annex building used by the District, RV camping, and areas that have been used for storage of boats and equipment.

Several geologic and soil investigations have been conducted at the parcel; the dates of these reports range from 1970 to 2008. Most of the reports were prepared in association with proposed projects that were planned for the site. A listing of the reports and summaries of their contents were presented in a report prepared by Earth Systems Pacific in 2008 (Earth Systems 2008).

4.0 SITE DESCRIPTION

The Harbor Terrace site is located on the north side of Avila Beach Drive at the intersection with Diablo Canyon Road at Port San Luis, County of San Luis Obispo, California. The 32-acre site lies on the end of a moderately steep northwest-trending ridge. The ridge has been extensively altered by grading into a series of terraces that are separated by cut and fill slopes. The terraces and the slopes between the terraces range in elevation from 50 feet to approximately 200 feet above mean sea level (MSL). The terraces consist of a combination of cut and fill materials at gradients that vary from 1.5:1 to 2:1 (horizontal:vertical). The graded terraces are currently being used for RV camping, and storage of harbor material, trailer boats, and fisherman's gear. RV campsites and a closed annex office are present in the southeastern region of the site on what used to be the trailer park. With the exception of the annex office, there are no permanent buildings on the property. A water storage tank serving the harbor area is situated on a small pad in the north corner of the property, at an elevation of approximately 280 feet MSL. Several water lines traverse the site and serve the RV camping area.

5.0 GEOLOGIC SETTING

Port San Luis is located within the Coast Ranges province of California, a north-northwest trending mountain range that extends from the Santa Maria area north to Humboldt County. The Coast Ranges comprise Mesozoic-age to recent sedimentary, volcanic, metavolcanic, metamorphic, and granitic rocks. The Harbor Terrace site lies at the end of a ridge within the Irish Hills, which constitute part of the southern Coast Ranges and are characterized by Jurassic, Cretaceous, and Tertiary-age rock units. Surface elevations within the site range from 30 to 330 feet MSL.

The geologic units underlying the Harbor Terrace site include the Miocene-age Monterey Formation and rocks associated with the Jurassic/Cretaceous-age Franciscan Mélange. The Monterey Formation encompasses siltstone, claystone, dolomitic siltstone, cherty and opaline shale, and tuffaceous sandstone. The Franciscan Mélange generally underlies the Monterey Formation. It is a mixed-rock unit that, in this locale, consists predominantly of highly fractured green serpentinite, dark-green to black shale, and metavolcanic rocks. The entire unit has been extensively altered by tectonic activity, which is expressed as shearing and folding. The bedrock structure is highly complex, particularly within the serpentinite and metavolcanic rocks, and at contact areas with the younger Monterey sedimentary rocks. The Franciscan Mélange is particularly prone to instability and landsliding. The site is overlain by surficial units consisting of colluvium, landslide debris, and fill soil.

Please see the Geologic Map, Appendix B, for a depiction of the geologic units.

6.0 SEISMIC SETTING

6.1 Local and Regional Faults

The California Geological Survey evaluates faults based upon demonstrated activity and potential for future activity. "Historically active" faults have exhibited earthquake activity during historic time (within the last 200 years +/-). "Active" faults exhibit geologic evidence of movement in Holocene time (last 11,000 years +/-). "Potentially active" faults have geologic evidence of Pleistocene Era movement (last 2,000,000 years +/-).

Active faults that may impact the project include the Los Osos Fault, the San Andreas Fault, and the Hosgri Fault. The newly discovered Shoreline Fault also lies in close proximity to the site; however, its activity level has not yet been determined. The San Luis Bay Fault, a potentially active fault that is part of the San Luis Range Fault System, is believed to cross the site and may also result in impacts.

Los Osos Fault. The Los Osos Fault is a west-northwest-trending reverse fault that extends predominantly along the northeastern margin of the San Luis Range in San Luis Obispo County. The fault, which has an overall length of about 35 miles, is divided into four segments. The most westerly segment of the fault is the Estero Bay segment, which lies mostly offshore. The Irish Hills segment, the only active fault segment, starts in the vicinity of Los Osos and extends southeasterly to just past San Luis Obispo Creek. A two-mile length of the Irish Hills segment, west of Laguna Lake and near the westerly limit of the City of San Luis Obispo, is considered to be active (Treiman 1989) and is designated as an Alquist-Priolo Earthquake Fault Zone (Hart 1997, revised). The other two segments of the Los Osos Fault are the Lopez Reservoir segment and the Newsome Ridge segment, both located southeast of the Irish Hills segment, east of San Luis Obispo Creek. At its closest point, the Los Osos Fault lies approximately 7 miles north of the site.

San Andreas Fault. The most seismically active fault in California is the San Andreas Fault, which lies about 45 miles to the east of the site. The San Andreas Fault is the primary surface boundary between the Pacific and North American plates, and it is generally considered to be the most likely source for strong ground motion in San Luis Obispo County.

Approximately 600 miles long, the San Andreas Fault extends from the Gulf of California to the north coast of California just south of the town of Humboldt. The fault is a right-lateral strike-slip fault and, for classification purposes, is divided into several segments. Locally, the Cholame segment extends southeast from Cholame for about 40 miles, and joins the Carrizo segment, which extends another 90 miles to the southeast. The San Andreas Fault undergoes a major change in character between Parkfield and Cholame. This change is in the Parkfield segment, which has an approximate length of 17 miles and extends from Cholame to 4 miles north of Parkfield. This fault segment is locked, generating an earthquake every 5 to 20 years on average. Dated earthquakes on this segment are 1857, 1881, 1901, 1922, 1934, 1936, 1939, 1966, and 2004. They have historically been in the magnitude 5.5 to 6.0 range (Bakun 1988). A 6.0-magnitude earthquake last occurred on this fault segment on September 28, 2004 (USGS 2009).

Hosgri Fault. The Hosgri Fault consists of a series of faults off of the San Luis Obispo County coast. From an area offshore of San Simeon Point, the Hosgri Fault extends to an ocean shelf 2 miles west of Point Buchon, and then trends toward the Point Sal area. The fault is considered active by the United States Geologic Survey (USGS 2009), based on Hall's claims of recent offset terrace deposits along San Simeon Cove, and also by a relocation of the 1927 "Lompoc Earthquake" onto the southern end of the fault (Hall 1975, 1976, 1977). At its closest point, the Hosgri Fault lies approximately 6 miles to the west of the site.

Shoreline Fault. The Shoreline Fault is a vertical strike-slip fault running along the coastline near San Luis Obispo, California, approximately 5.5 miles northwest of the site. Due to its relatively recent discovery, little is known about the Shoreline Fault, including its activity level, slip rate and details regarding its geometry. Research conducted to date has indicated that it is a single continuous fault that connects to the Hosgri Fault. As the Shoreline Fault is essentially vertical, and the Hosgri Fault dips steeply to the east, the Hosgri Fault is believed to dip toward and beneath the Shoreline Fault. The Shoreline Fault most likely transfers strike-slip motion between the Hosgri Fault and other faults of the Pacific–North America Plate Boundary system to the east.

San Luis Range Fault System. The San Luis Range Fault System comprises a series of west-northwest striking faults including, from south to north, the Santa Maria River Fault, the Wilmar Avenue Fault, the Oceano Fault, the San Luis Bay Fault and the Pecho Fault. The Santa Maria River Fault is approximately 17 miles southeast of the site. The trend of this fault is inferred from oil well logs and geophysical records. It extends from south of Sisquoc in Santa Barbara County to the Wilmar Avenue Fault in Nipomo. The Wilmar Avenue Fault extends from northern Nipomo to Pismo Beach, where it is exposed in the ocean bluff at the end of Wilmar Avenue. At this location, Pleistocene terrace deposits are displaced in the face of the bluff. The Wilmar Avenue Fault is approximately 4 miles southeast of the site. The Oceano Fault is a 12-mile long northwest-trending fault extending from the town of Nipomo to the offshore area of San Luis Obispo Bay. At its closest point, the Oceano Fault is about 7 miles to the southeast of the site. Because of thick dune sand and alluvial deposits, the onshore trace of the fault is buried or obscured, and the fault's geometry is inferred from subsurface geophysical and well data. The Pecho Fault is located along the coastline about 4 miles west of the site. It is the northernmost fault along the southwestern margin of the San Luis Range. The fault is not exposed in any outcrop and has no geomorphic expression. Its presence along the coast is inferred on the basis of an offset of late Pleistocene marine terrace sequence (Lettis et al 1994).

San Luis Bay Fault. The San Luis Bay Fault, part of the San Luis Range Fault System described above, is generally a west-trending reverse fault that displaces and locally warps late Pleistocene marine terraces near the community of Avila Beach. From the Avila Beach area, the fault extends west into the offshore area between the coastline and the Hosgri Fault, and to the southeast offshore of Avila Beach. The San Luis Bay does not directly connect with the Wilmar Avenue Fault, but has similar geometry and structural features along the southwestern margin of the San Luis Range. Geologic data developed by onshore geologic studies, offshore drill

holes, and geophysical data indicate that the fault has a maximum length of about 11.8 miles, including both onshore and offshore segments. The onshore portion is believed to have a length of approximately 2.8 miles. In the near-surface, it dips about 15 to 40 degrees to the north; the dip steepens to about 70 degrees at depth.

The fault is poorly exposed and not well-expressed geomorphically, suggesting a low level of activity. Due to the absence of onshore geomorphic expression, the age of the most recent movement is unknown. Mapping by Lettis and others (1994) indicate that the fault displaces strata of Pleistocene-age terrace deposits, leading to its designation by the California Division of Mines and Geology (CDMG) as "potentially active." Radiocarbon dating of charcoal deposits derived from a strand of the fault exposed in a sea cliff near Avila Beach yielded a date of 21,040 (+/- 850) years. According to discussions with William Lettis (personal communication, December 1996), there was evidence that the fault had displaced younger sediments above where the charcoal sample was dated. There were no charcoal deposits within the displaced younger strata, however, that would allow radiocarbon dating to establish a more recent date of the fault activity (Lettis et al, 1994). Although this date does not establish the fault as active, the fact that it broke younger sediments above the charcoal deposits indicates that it has moved more recently than 21,000 years ago.

7.0 GEOLOGIC HAZARDS

7.1 Landslides

Eight significant landslides have been identified on and in the general vicinity of the site. The approximate locations of these landslides are shown on the Geologic Map, in Appendix B. Please note that the map is a compilation of data from previous reports and our site reconnaissance. It was not subject to GPS or other survey control; consequently, the locations of all the features shown should be considered approximate. It should also be noted that none of the geologic studies conducted to date included in-depth geologic analysis or detailed subsurface exploration of any of the landslides, and past grading of the site has obscured some of the topography related to the landslides. Consequently, the precise areal extent, depth, and configurations of the landslides are unknown and can only be approximated at this time.

The largest landslide, referred to herein as Landslide 1, is located in the eastern region of the site. This landslide was studied to a degree by F. Beach Leighton and Associates (Leighton 1971) and its limits approximated and mapped; however, due to the lack of subsurface exploration, the depth, geometry, and stability characteristics of the landslide are unknown. While the slide's activity level is also unknown, Leighton noted that there had been recent

movement at the time of his evaluation and, in the mid 1980's, it was reported that evidence of minor movement within the slide mass had been observed at the existing trailer park. Based upon visual observations, it appears past movement of the slide has been slow; there is no visual evidence of rapid or catastrophic movement. At the time of the preparation of this report, four borings had been drilled in the past in this landslide; however, these borings were drilled as part of the subsurface assessment for environmental purposes and not as part of a geologic evaluation. The conceptual site layout plan indicates several hotel/motel units (cabins), a restroom, car/tent campsites, and walk-in/bike-in campsites will be located within the boundaries of Landslide 1.

A second landslide, designated Landslide 2, is present in the northwestern part of the site. Downslope of Landslide 2, an area of colluvium is shown on the Geologic Map. The conceptual site layout plan indicates that the areas intended for harbor use, i.e. trailer boat, marine gear, and harbor storage, are located below Landslide 2.

Landslide 3, also a significant landslide mass, lies downslope of the existing water tank site. The conceptual site layout plan indicates that some hotel/motel units (cabins) will be situated within and below Landslide 3.

A fourth landslide, Landslide 4, is located off-site to the southwest of the Harbor Terrace site and thus is not shown on the Geologic Map. Discussion of this landslide was included in previous studies as its location was within an area previously contemplated for development; however, it is not part of the currently proposed project.

A fifth landslide was identified by Leighton in the western region of the site (Leighton 1971). Leighton indicates that this landslide was activated by grading activities that took place in the early 1970's. There is a reference to a buttress fill that was placed to stabilize the landslide; however, the topography has been so obscured by grading that the landslide may have been removed, and its location and that of the buttress fill can only be approximated. The Harbor storage and marine storage areas in the northwest region of the site, as shown on the conceptual site layout plan, may lie within the boundaries of Landslide 5, if it or any remnants still exist.

A sixth landslide was also described by Leighton in the central region of the site; this landslide was also evidently triggered by grading during the early 1970's and was attributed by Leighton to a combination of shallow groundwater, oversteepening of slopes, and the claystone bedrock.

This landslide could not be identified during a site reconnaissance, and it is believed to have been largely (or entirely) removed by grading activities. RV sites may lie within the boundaries of Landslide 6, if it or any remnants are still present in this area.

Due to uncertainty regarding their current status, Landslides 5 and 6 are shown as queried on the Geologic Map.

In addition to the landslides described above, there are two landslides located to the northwest that are designated on the Geologic Map as Landslides 7 and 8. While Landslide 7 encroaches partially onto the site, it does not appear to pose a threat to any components of the project as currently planned. Due to their off-site locations, Landslides 4 and 8 are not discussed further in this report. There are also numerous smaller landslides and slumps located throughout the property that are not specifically identified.

Potential Impacts

Movement of landslides, including seismically-induced movement, could result in damage to proposed improvements that lie within their boundaries or in their path. Movement of Landslide 1 or Landslide 3 could damage cabins, campsites or vehicles and, depending upon the type and severity of the movement, could endanger those occupying these areas. If natural gas lines were to cross the sites, there would be a possibility of fire danger if rupture of the lines occurred. Rupturing or severing of "wet" utilities, i.e. water and sewer, could result in discharge of water or effluent into the subsurface, which could in turn trigger further instability and exacerbate slope movement. Movement of Landslide 2 could result in damage to boats, gear, vehicles, and other stored items. It is questionable as to whether Landslides 5 or 6, or remnants thereof, still exist; if movement in these areas occurred, damage to stored items in the Harbor area or to the RV sites could result. In general, movement of any of the landslides could result in damage to utilities, roads, pavement, retaining walls, and other infrastructure that lie within or below the landslides.

Mitigation Measures

a. *Geologic Investigation*. Where development within or below a landslide is planned, a geologic investigation should be conducted. The investigation should conform to Section 1803 of the 2013 edition of California Building Code and the Guidelines for Engineering Geology Reports, San Luis Obispo County, Department of Planning and Building (2005, revised 2013), or editions that are applicable at the time of investigation. The investigation should be conducted by a Certified Engineering Geologist. At a

minimum, it should address the type, extent, depth, configuration, and activity level of the landslide, and should include an analysis of slope stability. Once the characteristics of the landslide are known, the most appropriate mitigation measure(s) can be developed.

b. *Regrading.* The entire landslide mass can be regraded from the toe to the upper limit, or the grading program could involve only those areas including and above proposed improvements. If an entire landslide mass were to be regraded, removal of the slide materials and replacement as a structural fill, including excavation of proper keyways, benches, and installation of subdrains would likely be necessary. Use of geogrid reinforcing may be appropriate for some areas. Geogrid reinforcing involves the placement of alternating layers of geogrid and soil, and can be effective in increasing soil strength and stability. Another option that may be appropriate for specific project areas would be partial stabilization. This solution may include the construction of buttress fills below improvement areas that would be sufficient to resist movement of the upper portion of the slide mass. With partial stabilization, it should be noted that any improvements situated within the landslide but below the buttress would still be at risk from landslide movement.

c. *Structural mitigation.* Structural mitigation may be a potential option, depending upon the characteristics of the landslide in the area where the improvements are located. For habitable buildings, such solutions might include deep foundations e.g. driven piles or caissons designed with sufficient lateral resistance to overcome the sliding force exerted by the landslide. Foundation augmentation such as tie-back anchors attached to the concrete caissons or piles, or batter piles, may be appropriate. Another potential solution would be to construct walls that would be anchored through the slide and founded in underlying stable material.

d. *Mitigation for Roads and Utilities.* Potential mitigations to protect roads and utilities could include such measures as retaining walls, possibly anchored with tie-backs or reinforced with soil nails or geogrid, depending upon the depth and characteristics of the landslide in those areas. Flexible and/or articulating connections may provide some mitigation for utilities, again depending upon the nature and severity of the landslide movement. For water lines, sacrificial lines with automatic shut-off valves may be appropriate. If the geologic investigation confirms that the landslide is slow-moving, on-going repair and replacement of damaged roads and utilities may be feasible. Another option may be constructing utilities above grade in utility raceways.

e. *Monitoring*. As landslide movement tends to be associated with inclement weather, seasonal monitoring of the landslides for indications of incipient movement would be prudent in addition to other selected mitigation measures. If monitoring indicates potential movement, or during periods of particularly intense or prolonged inclement weather, temporary restrictions on use and occupancy of the campground could be implemented.

7.2 Erosion

The extent and severity of erosion is related to the type of soil, the velocity of concentrated runoff that may come into contact with unprotected soil, and the length of time during which unprotected soils are in contact with concentrated runoff. Generally, the steeper the slopes, the less cohesive the soils, and the longer that the soils are unprotected and exposed to environmental elements, the greater the impact. At this site, there are many areas of steep slopes, some of which consist of fill soils that may not be properly or adequately compacted. Therefore, the potential for erosion is considered moderate to high in some areas of the site.

Potential Impacts

Erosion can result in soil loss, degradation of slopes, downslope accumulation of sediment, and sedimentation of drainages and culverts.

Mitigation Measures

Erosion can be controlled by the implementation of erosion control measures during construction, and as part of the permanent operational plan for the campground. Erosion control measures may include control of surface runoff; V-ditches, berms, brow ditches, or other drainage diversion features; mid-slope benches; vegetation; straw bales; erosion matting; vegetative cover, control of rodent activity, or other methods. Drainage should discharge in a nonerosive manner away from improvements and, where slopes are present, away from the tops and toes of the slopes.

7.3 Radon

Radon is a naturally occurring, gaseous element formed by radioactive decay of radium atoms, and is associated with certain rock or soil units. When buildings are constructed above radon-bearing soil or rock, the gas can seep upward and gain entrance to the structure via cracks in concrete floors or walls, through floor drains, joints, bricks, or other conduits. Accumulation of

radon gas within a structure can create significant health risks. Geologic units that are associated with radon gas include Mesozoic granitic rocks, Tertiary sedimentary rocks derived from Mesozoic granitic rocks, and Tertiary marine sedimentary rocks. Although the Monterey Formation that underlies portions of the site is a Tertiary marine sedimentary rock, according to Special Report 208 by the California Geological Survey (Churchill 2008), the project site is in an area of low potential for radon. Consequently, no significant impacts to the project associated with radon are anticipated.

7.4 Naturally-Occurring Asbestos

Asbestos can occur naturally in certain rock formations, such as those that include serpentinite or ultramafic rock. At this site, the Franciscan Mélange is present, generally underlying the Monterey Formation. It is a mixed-rock unit that, in this locale, consists predominantly of highly fractured green serpentinite, dark-green to black shale, and metavolcanic rocks.

Potential Impacts

When rock containing naturally-occurring asbestos is broken or crushed, such as during grading operations, asbestos fibers may be released and become airborne. Exposure to asbestos fibers may result in health issues such as lung cancer, mesothelioma, and asbestosis.

Mitigation Measures

If excavation into Franciscan Mélange rock units is planned, samples of the serpentinite or ultramafic rock should be tested to determine if asbestos is present, as only some types of these rocks contain asbestos. If the samples do prove to contain asbestos, an appropriate mitigation plan should be developed prior to the start of excavation operations. Potential mitigations include leaving the material known to contain asbestos in place, covering or capping it, limiting or controlling dust-generating activities, or excavating and disposing of materials containing naturally-occurring asbestos.

8.0 SEISMIC HAZARDS

8.1 Faults

According to previous studies conducted in the area, the Harbor Terrace site is crossed by the San Luis Bay Fault (PG&E 1988). While the precise location of the fault is not known, past studies constrained the fault to an approximately 1,200-foot wide zone that encompasses almost the entire campground site. (Leighton 1971) identified an area of highly sheared rock in the west central region of the site. Such a highly sheared rock zone is suggestive of faulting,

and may represent a secondary fault extending from the main fault. Although the fault is not considered active and is not recognized as being within a designated Alquist-Priolo Earthquake Fault Zone, there is a potential for it to move sympathetically in response to strong ground shaking from a seismic event along another fault. According to guidelines issued by the County of San Luis Obispo, Planning and Building Department (2005, revised 2013), structures intended for human occupancy must be setback an appropriate distance from active or "potentially active" faults.

In a previous phase of work for this project, a fault investigation was conducted in the southern region of the site (Earth Systems 2014). The building area indicated by the client was a 100-foot by about 175-foot rectangle that was within what is currently a boat storage area in the southern region of the site. This area was designated by the client as a probable building site for one or more structures intended for visitor-serving uses. Per the procedures specified by the County of San Luis Obispo, exploratory trenches were excavated perpendicular to the fault trace and extended beyond the building footprint at least the minimum setback distance for the building type. Per Table 1 of the San Luis Obispo County guidelines, the minimum setback under the 2013 California Building Code for a Class "B" (Business Occupancy) structure would be 20 feet from the fault. Due to the early stage of the project, an additional 10 feet (5 feet on each side) was added to the width of the building area indicated by the client. This was to allow the design consultant some flexibility in the eventual positioning of the building. The resulting potential building area was 110 feet wide, measured perpendicular to the fault trend.

Two exploratory trenches were excavated in a general northeast trend, i.e. perpendicular to the trace of the northwest-trending fault. The materials exposed in the trenches were logged by a Certified Engineering Geologist.

No fault-related features were observed in either of the two trenches. While shearing was observed in the metavolcanic and serpentinite bedrock units, the shearing was discontinuous and exhibited a random pattern that extended throughout large bedrock blocks. In our professional opinion, the shear pattern found is an example of the shearing and alteration caused by tectonic activity that is characteristic of, and prevalent within, bedrock of the Franciscan Mélange. No fault gouge was found, and there was no evidence of a fault plane.

As stated previously, San Luis Obispo County guidelines require that exploratory fault trenches be excavated a minimum of 20 feet beyond the limits of the proposed (Class "B") structure(s). The 100-foot wide building area indicated by the client was extended to 110 feet and the

trenches extended 20 feet beyond this expanded building area. No evidence of faulting was observed in the two trenches, effectively "clearing" the designated building area of the San Luis Bay Fault. Furthermore, as the trend of the fault is relatively well documented, the cleared area can be extrapolated parallel to the known fault trend (perpendicular to the trenches) and the extrapolated area can also be considered to be clear of faulting. This zone, shown on the Geologic Map, extends from the property boundary setback at Diablo Canyon Road to the property boundary setback at Avila Beach Drive.

For structures built within the 110-foot "cleared" zone, no setbacks from the San Luis Bay Fault are considered necessary. Based upon the conceptual site layout plan provided by the client; however, some potentially habitable structures are located outside of the cleared area.

Potential Impacts

In the event of fault movement, buildings and associated improvements could be damaged, and building occupants could be endangered.

Mitigation Measures

Per the County of San Luis Obispo guidelines, a fault investigation is required for any structure considered to be habitable; consequently, it should be determined which of the structures situated outside of the cleared zone would be considered "habitable." The building areas of habitable structures should be investigated by excavating an exploratory trench(es) perpendicular to the fault trace, and extending beyond the building footprint at least the minimum setback distance for the anticipated building type. The fault investigation should be overseen by a Certified Engineering Geologist and should conform to the Guidelines for Engineering Geology Reports, San Luis Obispo County, Department of Planning and Building, (2005, revised 2013) or the applicable edition at the time of investigation, or other pertinent codes or regulations that may be in effect at that time.

If any habitable structures are found to overlie the fault or are within the minimum setback distance to the fault, they should be relocated or designed to accommodate potential fault movement (pending approval by the County of San Luis Obispo). Potential design solutions could include mat foundations or overexcavated and geogrid-reinforced building pads designed with sufficient strength to overcome the maximum shearing forced exerted by seismic movement. Utility lines could be fitted with articulating connections and/or automatic shut-off valves.

8.2 Ground Shaking

The site is located in a seismically active area, as is most of California. The site has the potential to experience strong ground shaking from earthquakes on regional and/or local causative faults. There are several faults in the vicinity of the project site that are capable of producing strong ground motion, including the active Los Osos, San Andreas and Hosgri Faults. Ground shaking could also occur in the event of movement along the newly discovered Shoreline Fault or the San Luis Bay Fault. During an earthquake (or sympathetic fault movement) along any of these faults, seismically-induced ground shaking would be expected to occur at the Harbor Terrace site. The severity of the shaking will be influenced by the distance of the site to the seismic source, the soil conditions, and the depth to groundwater.

Potential Impacts

In the event of severe ground shaking, buildings and associated improvements could be damaged, and building occupants could be endangered.

Mitigation Measures

New construction is subject to compliance with the California Building Code (CBC), which includes measures to reduce risk from seismic events. Structures should be designed in accordance with the seismic parameters presented in a project-specific geotechnical engineering report, applicable sections of the appropriate edition of CBC, and other applicable local regulations relating to potential seismic hazards. The geotechnical engineering report should be prepared by a qualified geotechnical engineer.

8.3 Ground Surface Rupture

Surface rupture is the displacement and cracking of the ground surface that occurs along a fault trace during an earthquake. Unlike seismically-induced ground shaking, which can affect a wide geographic area, surface rupture is confined to the area very near the fault. The project site is not located in an Alquist-Priolo State Earthquake Fault Zone, and there are no mapped active faults immediately adjacent to or crossing the site. Evidence indicates, however, that the site is crossed by the San Luis Bay Fault. In the event that the San Luis Bay Fault moved sympathetically in response to strong ground shaking from a seismic event along another fault, there is a potential for ground rupture to occur.

Potential Impacts

In the event of surface rupture, buildings and associated improvements could be damaged, and building occupants could be endangered.

Mitigation Measures

Per the County of San Luis Obispo guidelines, a fault investigation is required for any structure considered to be habitable; consequently, it should be determined which of the structures situated outside of the cleared zone described previously would be considered "habitable." The building areas of habitable structures should be investigated by excavating an exploratory trench(es) perpendicular to the fault trace, and extending beyond the building footprint at least the minimum setback distance for the anticipated building type. The fault investigation should be overseen by a Certified Engineering Geologist and should conform to the Guidelines for Engineering Geology Reports, San Luis Obispo County, Department of Planning and Building (2005, revised 2013) or the edition that is applicable at the time of investigation, or other pertinent codes or regulations that may be in effect at that time.

If any habitable structures are found to overlie the fault or are within the minimum setback distance to the fault, and consequently could be at risk in the event of ground surface rupture, they should be relocated or designed to accommodate this possibility (pending approval by the County of San Luis Obispo). Potential design solutions could include mat foundations or overexcavated and geogrid-reinforced building pads designed with sufficient strength to overcome the maximum shearing forced exerted by seismic movement. Utility lines could be fitted with articulating connections and/or automatic shut-off valves.

8.4 Liquefaction and Lateral Spreading

The term liquefaction refers to the liquefied condition and subsequent softening that can occur in soils when they are subjected to cyclic strains, such as those generated during a seismic event. Studies of areas where liquefaction has occurred have led to the conclusion that saturated soil conditions, low soil density, grain sizes within a certain range, and a sufficiently strong earthquake, in combination, create a potential for liquefaction. When liquefaction occurs, the visible expression of the phenomenon can be localized loss of soil bearing capacity, sand boils at the ground surface, and dynamic settlement.

Lateral spreading is a phenomenon that is associated with liquefaction. Slopes may become unstable during liquefaction, and level areas near descending slopes may move laterally toward the slope as the slope becomes unstable.

While shallow groundwater was not encountered in most of the past borings drilled at the site, water seepage or perched water was noted in some borings, and Leighton attributed movement of Landside 6, in part, to shallow groundwater. Consequently, shallow groundwater may be present in some areas of the site. In view of this and the fact that the composition, density, and other properties of the native and fill soils at the site are not known, a potential for liquefaction and associated lateral spreading may exist in some areas of the site.

Potential Impacts

In the event of liquefaction or lateral spreading, buildings can be damaged, slopes can become unstable, underground utility lines can be ruptured, and surface improvements such as pavement, flatwork and slabs can experience cracks, deformation, and settlement.

Mitigation Measures

The potentials for liquefaction, lateral spreading, and associated slope failure should be addressed in a geotechnical engineering report prepared by a qualified geotechnical engineer. The report shall conform to Sections 1803.1 through 1803.6, J104.3, and J104.4 of the 2013 California Building Code, or the applicable edition at the time of project design/construction.

If significant potentials for liquefaction or lateral spreading are found to exist, recommendations for mitigation should be developed and presented in the geotechnical engineering report. If it is determined that liquefaction or lateral spreading may affect certain parts of the site, there are numerous mitigation measures that can be implemented. Depending upon the location, depth, and extent of liquefaction or lateral spreading-prone areas and the types of improvements planned for these areas, potential mitigations could include earthwork programs, specialized foundations (such as mat or deep foundations), ground modification, and designing pipes and pipe connections for high strength and ductility. Potential measures to mitigate slope instability induced by lateral spreading include deep ground improvement methods, reinforcing of slopes, reducing slope inclinations, or establishing adequate setbacks between structures and slopes.

8.5 Seismically-Induced Settlement

Seismically-induced settlement of sufficient magnitude to cause structural damage is normally associated with sufficiently strong earthquake shaking combined with poorly consolidated, predominantly sandy soils, or variable consolidation characteristics within the structure area. Undocumented fill underlies much of the site, and may be deeper than the 36 feet encountered in past borings. Due to the unknown nature of the fill material, the potential for seismically-induced settlement should be considered moderate to high unless future analysis of the fill soils indicates otherwise.

Potential Impacts

Seismically-induced settlement could result in damage to buildings, retaining walls, roads, utilities, and other infrastructure.

Mitigation Measures

The potential for seismically-induced settlement should be addressed in a geotechnical engineering report prepared by a qualified geotechnical engineer. The report should conform to Sections 1803.1 through 1803.6, J104.3, and J104.4 of the 2013 California Building Code, or the applicable edition at the time of project design/construction. The report should include an evaluation of the properties of the fill and native soils, address the potential for seismic settlement, and provide specific recommendations for mitigation if appropriate. Available alternatives to reduce the effects of soil settlement may include deep ground improvement methods, surcharging the site to further consolidate the underlying soils, use of deep foundations such as driven piles combined with structural support of floor slabs, use of lightweight fills, and limiting the thickness of fills. Structures should be designed in accordance with the recommendations and seismic parameters presented in the geotechnical engineering report, applicable sections of the appropriate edition of California Building Code, and other applicable local regulations relating to potential seismic hazards, including seismic settlement.

8.6 Seismically-Induced Landsliding and Slope Instability

Eight significant landslides have been identified at, or in the general vicinity of, the site on geologic maps and in previous geologic studies. There are also significant slopes at the site that comprise undocumented fill soils. In view of these conditions, which are described in greater detail later in this report, the potentials for seismically-induced landsliding and slope instability are considered high.

Potential Impacts and Mitigations

Please see Sections 7.1 and 9.1 for discussion.

8.7 Tsunamis and Seiches

A seismic sea wave or tsunami, which means "harbor wave," is produced by a large displacement of the ocean bottom and can move at velocities of up to 500 miles per hour in deep ocean water. In the deep ocean, tsunamis can be only a few feet high. As the tsunami reaches shallower coastal waters, it travels much slower and wave energy is compressed, which can lead to a rapid and dramatic increase in wave height. Generally, a tsunami is not a single wave but a series of waves, and the first wave may not be the largest. Tsunami waves are often destructive, leading to property damage and sometimes loss of life. In some cases, the coastal waters are drawn out into the ocean just before the tsunami strikes. When this occurs, more shoreline may be exposed than even at the lowest tide.

Typically, hazardous tsunamis along the California coastline are associated with seismic events and are caused by vertical displacement of submarine faults. They can also occur as a result of submarine landslides that may or may not occur in conjunction with seismic activity. The Hosgri Fault, which lies offshore of the site, is a right lateral fault with strike-slip (horizontal) movement. Consequently, it is unlikely to generate tsunami surges within San Luis Obispo Bay. Due to the gradual shallowing of the ocean toward the coast in south-central and southern California, tsunami waves originating from distant earthquakes on the coast of Japan, Alaska, and Hawaii have historically only produced a few feet of rise above mean high tide (Lander et. al 1993).

The coastline configuration of the central coast area also influences tsunami formation; south of San Francisco, the California coast trends to the southwest. As a result, waves associated with tsunamis originating from Alaska and Japan will be refracted, reducing the energy of the tsunami waves as they travel south. The diminished energy of the waves reduces the height and inland extent of the tsunami surge. Tsunamis along the central California coast are relatively rare, and only a few such events are well documented. The seismic event that occurred in Japan on March 11, 2011 produced an 8.9-magnitude earthquake. According to PG&E meteorologist John Lindsey, a tsunami that occurred as a result of that earthquake produced a 6.3-foot surge at 9:20 AM and a 6.6-foot surge around 11:25 AM at Port San Luis, which was the largest seismic tsunami sea surge ever recorded at this location.

According to the County of San Luis Obispo Tsunami Inundation Zone map (California Geological Survey 2009), only the first level of the car/tent camp site area lies within a Tsunami Inundation Zone. In the remainder of the site, the elevations are sufficiently high that inundation in the event of a tsunami striking this part of the central coast is not expected to occur.

Potential Impacts

Flooding of the car/tent camp sites within the identified Tsunami Inundation Zone could occur as a result of a tsunami generated by a seismic event or submarine landslide.

Mitigation Measures

In the event of a tsunami warning, evacuation of the car/tent camp sites would provide mitigation.

9.0 GEOTECHNICAL HAZARDS

9.1 Fill Soils and Slope Instability

The site has been extensively graded in the past, which has resulted in a series of terraces that extend across most of the site. The terraces were created by cut-and-fill grading, with fill placed or side-cast to form the outer margins of the terraces. Borings encountered fill soils that ranged in depth from 8 feet to 36 feet; however, the depth of fill is likely to vary throughout the site. As much of the grading took place in the early 1900's to create pads for oil tanks, significant amounts of the fill were placed in a manner that would not be considered adequate by today's standards.

A major fill area begins at the west end of the site, extends southeast along Diablo Canyon Road, continues along the south margin of the site, and may extend into the former trailer park. This fill was placed during grading operations that took place in the early 1970's. Logs of borings drilled within the fill area indicated fill depths of 23 to 36 feet; however, based upon the existing topography, it is questionable as to whether the borings were drilled from the current ground surface elevation in this area. In our opinion, it is likely that these areas were further filled after the borings were drilled; consequently, we believe that there are areas of this fill that are significantly deeper than indicated in the borings. It is generally believed that this fill was placed partially to provide a buttress for Landslide 5. It appears that Landslide 5 may have been removed by the grading that later took place in this area.

There is, to our knowledge, no documentation attesting to the proper placement or compaction of the fill soils and, based upon the time periods when the grading took place, it is unlikely that the fill slopes were keyed, benched, compacted, or fitted with drains in a manner that would be considered acceptable by today's standards. As a consequence, some of these slopes may be unstable and prone to failure, particularly during periods of inclement weather. The fill areas, based upon mapping by Leighton and logs of borings, are shown on the Geologic Map.

The area slated for commercial uses is above deep fill soil, and at the top of an existing fill slope. The fill soils are undocumented. The harbor and marine storage areas in the northwest region of the site, as shown on the conceptual site layout plan, will also lie atop deep, undocumented fill soils. As discussed previously, the harbor and marine storage areas are also within the boundaries of Landslide 5, if Landslide 5 still exists. Colluvium is present in this region of the site, below Landslide 2. The stability of the fill slopes and the colluvium has not been studied.

Potential Impacts

Where there is no documentation attesting to the proper placement or compaction of fill soils, they should not be relied upon for support of buildings. Constructing a building on fill soil that has not been properly placed or compacted can lead to excessive settlement or differential settlement of the building, which can in turn cause extensive damage. If fill slopes are not keyed, benched, compacted, or fitted with drains, they may be unstable and prone to failure, particularly during periods of inclement weather. In the event of failure of the slope supporting the commercial building, the building occupants could be endangered and damage to the commercial building, pool, and associated improvements could result. If the pool is damaged and water leaks into the subsurface, further instability and slope failure could result.

The proposed grading concept, as indicated on the site layout plan, indicate proposed fill depths of up to 37 feet, in many cases, new fill will be placed upon existing fill or existing fill slopes. If new placement of fill over existing uncompacted fill is planned, instability could result. Similarly, slope failures could occur where fills are placed over existing cut slopes, or where grading exposes cut over fill.

While the sites intended for harbor and marine storage would not be held to the same standard with respect to grading, and removal/replacement of the fill would most likely not be necessary, failure of fill slopes could impact these areas, potentially resulting in damage to stored items.

Where roads, retaining walls, and other infrastructure are constructed through areas of existing cut and fill, similar geotechnical issues could arise. Fill soils could prove to be unstable, resulting in slope failures that could range in severity from "nuisance factors" requiring periodic maintenance, to severe failures that could cause extensive damage and render portions of the site inaccessible until repairs can be effected. Fill soils that are not adequately compacted could also result in settlement, development of tension cracks, and failure of paved roads.

Mitigation Measures

The properties of the existing fill and the stability of the existing fill slopes should be should be addressed in a geotechnical engineering report prepared by a qualified geotechnical engineer. The report should conform to Sections 1803.1 through 1803.6, J104.3, and J104.4 of the 2013 California Building Code, or the applicable edition at the time of project design/construction. The report should include assessment of the existing fills, including suitability of the materials

used, original site preparation, and degree of compaction; the suitability of the fill for supporting the proposed improvements; settlement of potential of the fill; slope stability; the impact of placing fill upon existing fill; placement of fill over existing cut slopes; and appropriate mitigations for all of these issues.

If the fill is found to be inadequate for the support of proposed improvements or unstable, mitigation measures may include regrading, including removal of existing materials and replacement with structural fill. For fill placed on slopes, this would likely entail excavation of keyways, benches, and installation of drains. Use of geogrid reinforcing may be appropriate.

Structural mitigation is another potential solution. Depending upon the characteristics of the fill, retaining structures founded in underlying competent material may be applicable to specific situations. Types of appropriate retaining structures could include post and lagging walls, possibly anchored; gravity walls, mechanically stabilized earth walls, or cantilevered walls possibly augmented with tie-back anchors. In the commercial area, drainage measures beneath and surrounding the pool should be incorporated into its design.

9.2 Slope Hazards

Based upon a review of the conceptual grading as shown on the site layout plan, it appears that the project may entail grading and/or construction of buildings on slopes with natural grades between 25 and 30 percent.

Potential Impacts

Grading activities on steep slopes can create a potential for slope failure if material is improperly removed from the base of a slope, if the slope gradient is too steep for the type of material, or if drainage is not properly controlled. The risk of slope failure can increase if cuts encounter contacts between colluvium or fill and bedrock, if unfavorable bedding planes are intersected by cuts, or if fractured rock materials are encountered.

Mitigation Measures

The impact of grading of steep slopes should be should be addressed in a geotechnical engineering report prepared by a qualified geotechnical engineer. The report should conform to Sections 1803.1 through 1803.6, J104.3, and J104.4 of the 2013 California Building Code, or the applicable edition at the time of project design/construction. The report should address the potential for instability of natural and proposed slopes and provide recommendations for appropriate grading programs, including criteria for maximum slope heights and angles. Where buildings are to be constructed on steep slopes, development of suitable foundation systems and criteria for their design should be included in the report.

Potential mitigation measures could include regrading the slope to a flatter angle, use of geogrid reinforcement, or temporary shoring. Types of foundations appropriate for building construction on steep slopes may include driven piles, drilled caissons, or conventional foundations extended to bear in competent material.

9.3 Expansive Soils

Expansive soils tend to swell with increases in soil moisture and shrink as soil moisture decreases; typically, they are soils that contain a significant percentage of clay or silt. Borings drilled at the site during previous investigations indicated that overburden soils, where present, include moderate to high clay and silt fractions, suggesting that these soils likely have expansive qualities.

Potential Impacts

The expansion-contraction cycle can create a substantial risk to property, and can contribute to downslope creep of soils on slopes. The volume changes that the soils undergo in this cyclical pattern can also stress and damage foundations, slabs-on-grade, and other improvements if precautionary measures are not incorporated in design and in the construction procedure. Expansive soils can be particularly damaging to pavement and the curbs that separate it from bioswales and other infiltration low-impact development (LID) features. This is due to the typical large variations in soils moisture content that occur in infiltration areas from season to season.

Potential Mitigations

Soil expansiveness should be should be addressed in a geotechnical engineering report prepared by a qualified geotechnical engineer. The report should conform to Sections 1803.1 through 1803.6, J104.3, and J104.4 of the 2013 California Building Code, or the applicable edition at the time of project design/construction. The report should include assessment of the expansive properties of the soil, and provide recommendations for mitigation. Appropriate mitigation may include such measures as deeper footings in combination with preserving or augmenting the soil moisture, and use of a layer of nonexpansive material beneath slabs. There are a number of other options available, including caissons and grade beams, post-tensioned slab foundations, conventionally reinforced mat foundations, and deep nonexpansive pads. Deepening of curbs between pavement and bioswales, increasing the separation distance between pavement and bioswales, or other LID infiltration features may be recommended to reduce the potential for expansive soil damage.

9.4 LID/BMP Considerations

Many projects currently include provisions for LID post-construction storm water control using "best management practices" or BMPs. Examples of BMPs include passive methods such as disconnecting downspouts from storm drain systems and allowing them to drain on to the site; providing vegetated filter strip areas between parking lots, driveways or other hard surfaces and storm drain features, thereby allowing the vegetation to filter the and partially infiltrate water before it is discharged; and collecting storm water in rain barrels or other containment features to allow its re-use at a later date for irrigation or other non-potable uses. More active storm water control measures (SCMs) may include detention or retention (infiltration) basins, bioswales or vegetated swales, pervious pavement or pavers, subsurface infiltrators, and infiltration pits.

Potential Impacts

The use of BMPs can result in unanticipated geotechnical consequences that can adversely impact improvements such as foundations of structures, pavements, and retaining walls. All BMPs require maintenance, without which runoff may back up, overtop, or flow in unintended directions. This can cause erosion, localized flooding, excess shrink/swell of expansive soils, and possibly slope instability. Infiltration from BMPs may exacerbate fluctuations in soil moisture content and the corresponding shrink/swell cycle, causing damage to foundations and surface improvements. Infiltration BMPs and SCMs, whether maintained or not, may cause subsurface erosion, excess settlement of fill soils, or slope instability. For example, fills are generally constructed with subsurface drains; the intent of the drains is to capture and divert minor amounts of water and keep the fill in a reasonably dry condition. If infiltration SCMs are situated in or above a fill, drainage associated with the SCM may flow into the fill drains, which are typically not intended or designed to handle the resulting larger volume of water. In such a situation, the drainage may discharge from the fill drains, resulting in such adverse consequences as erosion, saturation of the fill soil, and possibly slope instability or triggering of landslide movement. Furthermore, the original objective of the SCM, i.e. to filter and control storm water, may not be achieved.

Mitigation Measures

A project specific geotechnical engineering report, prepared by a qualified geotechnical engineer and conforming to Sections 1803.1 through 1803.6, J104.3, and J104.4 of the 2013 California Building Code, or the applicable edition at the time of project design/construction,

should include assessment of the potential impacts of BMPs, including infiltration SCMs, and provide recommendations for mitigation. The impacts of infiltration SCMs upon slope stability, settlement of fill soils, drainage, and the shrink/swell cycle of expansive soils, should be analyzed and included in the report. In general, infiltration SCMs should not be placed in or above fill, near descending cut slopes, or at the toe of any slope. Infiltration SCMs should be set back from foundations and surface improvements, or barriers such as deepened curbs, cutoff walls or impermeable membranes should be placed between infiltration SCMs and foundations and/or improvements. Infiltration tests should be conducted to assess the infiltration potential for use in the design of infiltration SCMs.

To provide mitigation for potentially adverse impacts associated with BMPs, a maintenance program for all BMPs should be prepared and implemented. The program should include periodic inspection of BMPs, cleaning and removal of accumulated silt, sand, and debris from BMPs, maintenance of vegetation in BMPs, and periodic rehabilitation of infiltration SCMs.

10.0 CLOSURE

This report is valid for conditions as they exist at this time for planning the project as presented in the conceptual site layout plan by LWC and described herein. Our intent was to perform this study 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. 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. Application beyond the stated intent is strictly at the user's risk.

If changes with respect to the project become necessary, if items not addressed in this report are incorporated into plans, or if any of the assumptions or descriptions used in the preparation of this report are not correct, this firm should be notified for modifications to this report.

The preliminary conclusions presented in this report are based upon the geotechnical and geologic conditions of the site as indicated by available geologic literature and maps, past geologic/geotechnical investigations, and a site reconnaissance. Conditions should be confirmed (or modified) by appropriate geologic and geotechnical engineering investigations once the project reaches the appropriate stage.

This document, the data, conclusions, and recommendations contained herein are the property of Earth Systems Pacific. This report shall be used in its entirety, with no individual sections reproduced or used out of context. Copies may be made only by Earth Systems Pacific and the client for use exclusively on the subject project. Any other use is subject to federal copyright laws and the written approval of Earth Systems Pacific.

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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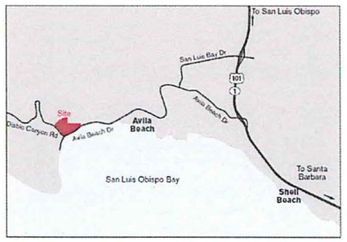
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APPENDIX A

Site Layout Plan (Lisa Wise Consulting)

SITE LAYOUT PLAN

VICINITY MAP



LEGEND

1. CHECK-IN STATION
2. PICNIC AREA / BBQ / OVERLOOK
3. CROSSWALK
4. ENTRY SIGNAGE
5. HARBOR USE SECURITY GATE
6. ACCESSIBLE RAMP / TRAIL / PATH
7. STAIRS
8. TRAILER BOAT STORAGE
9. MARINE GEAR STORAGE
10. HARBOR STORAGE AREA
11. FUTURE HARBOR USE BLDG (3,000 SF)

Ⓢ COMFORT STATION W/ TRASH / RECYCLE ENCLOSURE

Ⓟ PARKING

— ACCESSIBLE RAMP

····· TRAIL / PATH

Notes:
1. Internal roads 20' wide min. asphalt unless otherwise noted.
2. Expanded water storage tank to accommodate possible increase in water storage capacity that may be determined during the building permit approval process. Any improvements or additions shall be consistent with the San Luis Bay Area Plan

PROGRAM LEGEND

	OVERNIGHT CAMPGROUND ACCOMODATIONS		
	RV Sites	80	
	RV / RV Cabins	15	126
	Hotel/Motel Units (yurts, cabins, inns, casitas, bungalows)	31	
	Car/Tent Campsite	35	
	Walk-In/Bike-in Sites	21	56
	VISITOR SERVING COMMERCIAL USES - Retail / Restaurant - Meeting / Conference - Office / Lobby / Reception - Managers Residence - Storage / Restroom / Laundry - Picnic / Gathering Area with BBQ	16,000 SF	
	HARBOR USES		
	Trailer Boat Storage (10'X25')	70 spaces	
	Marine Gear Storage (20'X40')	20 spaces	
	Harbor Storage Area	1.05 acre	
	Expansion Area	10,000 SF	
Ⓟ	PARKING	48,000 SF	



Port San Luis Harbor Terrace Campground

LAND USE PERMIT SET

Note:
Site Layout Plan prepared by Lisa Wise Consulting, Inc and Sherwood Design Engineers

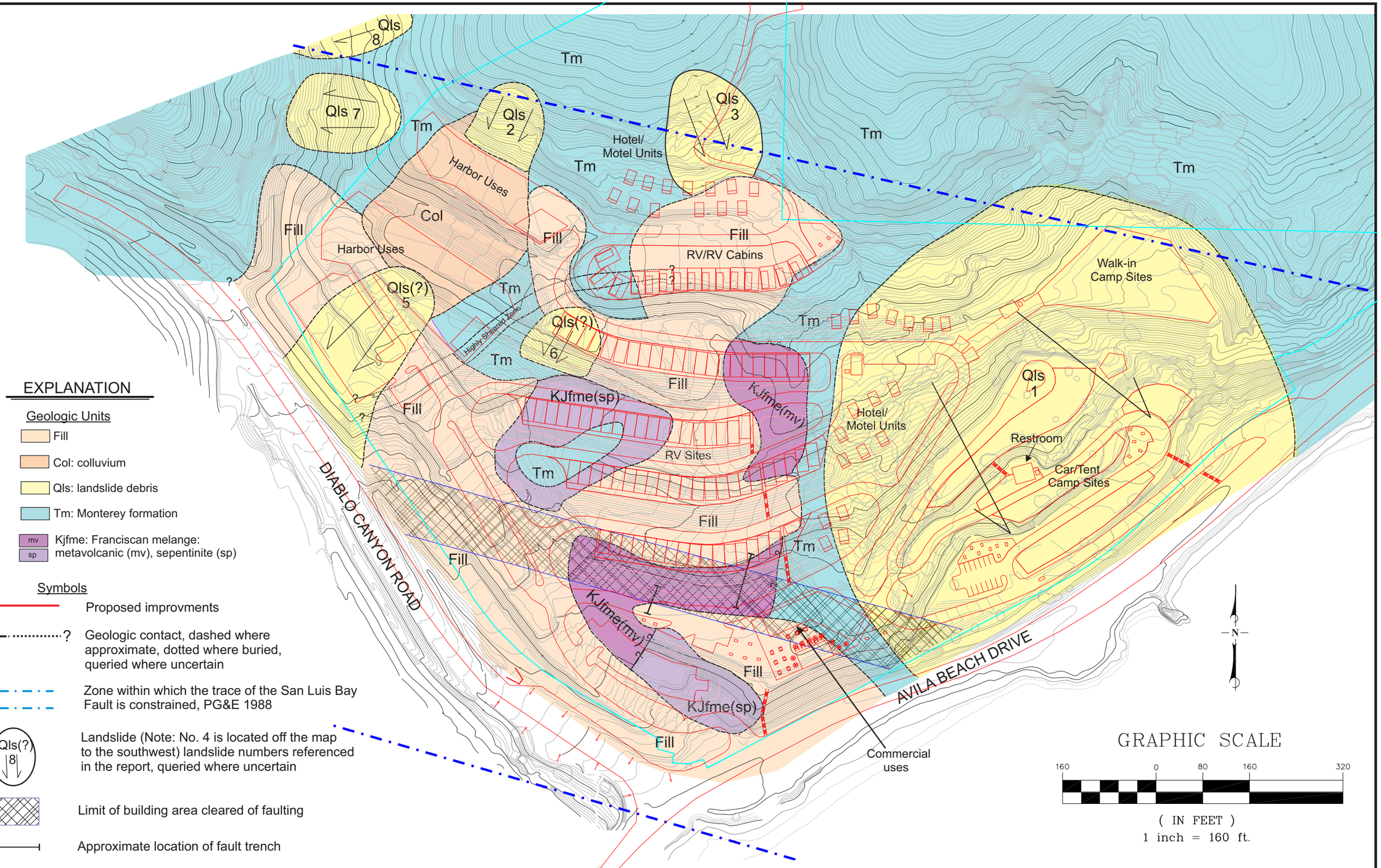
EARTH SYSTEMS PACIFIC
4378 Old Santa Fe Road, San Luis Obispo, CA 93401
www.earthsys.com - email: esp@earthsys.com
(805) 544-3276

SITE LAYOUT PLAN
HARBOR TERRACE CAMPGROUND
Port San Luis, California

Date
August 2014
Project No.
SL-15831-SC
Drafted by:
R. G.

APPENDIX B

Geologic Map



EXPLANATION

Geologic Units

- Fill
- Col: colluvium
- Qls: landslide debris
- Tm: Monterey formation
- mv / sp: Kjfme: Franciscan melange: metavolcanic (mv), sepentinite (sp)

Symbols

- Proposed improvments
- Geologic contact, dashed where approximate, dotted where buried, queried where uncertain
- Zone within which the trace of the San Luis Bay Fault is constrained, PG&E 1988
- Qls(?) 8 — Landslide (Note: No. 4 is located off the map to the southwest) landslide numbers referenced in the report, queried where uncertain
- Limit of building area cleared of faulting
- Approximate location of fault trench

Notes:

1) Base topographic map prepared by RRM Design Group, Inc.
2) Geology mapped by F. Beach Leighton 1971, Pacific Geoscience 1985, and Earth Systems Consultants Northern California 1995.

EARTH SYSTEMS PACIFIC
4378 Old Santa Fe Road, San Luis Obispo, CA 93401
www.earthsys.com - email: esp@earthsys.com
(805) 544-3276

GEOLOGIC MAP

HARBOR TERRACE CAMPGROUND
Port San Luis, California

Date
August 2014
Project No.
SL-15831-SC
Drafted by:
R. G.

APPENDIX F.
HYDROLOGY AND WATER QUALITY
BACKGROUND INFORMATION

I. Introduction

A. Purpose and Scope of report

The purpose of this report is to describe the intent and strategy of the drainage and hydrology design for the Port San Luis Harbor Terrace (PSLHT) Campground project. This report includes discussion of the drainage conditions for the existing site and the proposed development and will present data for both large and small storm events.

This report outlines the design methodologies required by the County of San Luis Obispo and presents hydrology data showing how these requirements were met. In this report it is shown that the proposed project is meeting the county set site design and water quality standards by using Low Impact Design and Development principles.

B. Project Description

The proposed project is a 32 acre hillside camping and RV site that is overlooking Port San Luis. The project will convert the existing harbor storage area into a multi-use campground with harbor related storage. This conversion will create a commercial use building, 5 RV parking / RV cabin areas, 32 hotel/motel units (yurts, cabins, inns, casitas, bungalows, per LCP), a walk in camping area, approximately 3 comfort stations, and the associated roadways and utilities. A harbor storage zone will be retained in the northwest portion of the site.

II. Performance Requirements

The County of San Luis Obispo has developed a Post Construction Requirements Handbook (dated March 2014) with the required standards for post-construction storm water management in new construction and redevelopment. Due to the location of the site in the county, construction must meet performance requirements 1 and 2. The requirements are described below:

A. Performance Requirement 1 (PR1) – Low Impact Development

The intent of PR1 is to mimic predevelopment hydrology to the extent feasible using LID principles. The overall design strategies that PR1 recommends using are to limit disturbance of creeks and natural drainage features; to minimize compaction of highly permeable soils; to limit clearing and grading of native vegetation; and to minimize impervious surfaces by concentrating improvements on the least sensitive portions of the site.

The site design measures listed in PR1, of which at least one (1) must be used, are listed below:

- Roof runoff directed into cisterns or rain barrels.
- Roof runoff directed into vegetated areas.
- Runoff from sidewalks, walkways or patios directed onto vegetated areas.
- Runoff from driveways and/or uncovered parking lots onto vegetated areas.
- Construct bike lanes, driveways, uncovered parking lots, or other paved areas with a permeable surface.

Regarding the Design Strategies, there are no creeks or significant natural drainage features on the site, and any small existing swales and minor ditches disturbed by construction will be fully restored and stabilized. Extensive regrading will be required to implement the proposed plan on the steep site, and the resulting cut and fill slopes will have to be compacted as directed by the project's geotechnical engineer. All areas that do not require disturbance, though, will be protected from unnecessary compaction. Similarly, the site's existing sparse vegetation cover will be retained wherever possible, but it is expected this will primarily be outside the limits of construction. The creation of new impervious surfaces will be limited to the extent feasible, but the proposed camping and vehicle storage uses of the site will require hard surfaced parking areas and all weather roadways. These uses are similar to the site's existing condition, although there will be an increase in total impervious cover. It is noted that permeable pavements were considered for the site, but were ruled out in accordance with the Harbor Terrace Campground Geologic - Geotechnical Hazards Study prepared by Earth Systems Pacific. Another portion of PR1 is the control of storm water. The site has been designed to fully comply with this requirement by sloping all impervious surfaces towards vegetated treatment areas in the form of swales and rain gardens, prior to being discharged from the site via a stormwater pipe system. Additionally the roof runoff of the large buildings on site should be directed to nearby rain gardens to meet the design requirements of Performance Requirement 1.

B. Performance Requirement 2 (PR2) – Water Quality Treatment

The purpose of this requirement is to reduce pollutant loads and concentrations in site generated stormwater runoff using physical, biological, and chemical removal processes. Regulated projects (the Harbor Terrace project would be considered a Regulated project) have three options, listed in preference order, to treat runoff.

- **Low impact development (LID)** treatment systems involve harvesting and use, infiltration, or evapotranspiration storm water control measures to collectively retain storm water runoff equal to the volume of runoff generated by the 85th percentile 24-hour storm event.
- **Biofiltration treatment** systems remove pollutants through the use of natural systems, such as swales or filter strips. Must demonstrate that the swale can treat site runoff of 0.2 inches per hour over a 24 hour period or 2 times the 85th percentile storm without causing scour, erosion, or channeling.
- **Non-Retention based treatment systems – "end of pipe" treatment approaches**. Must treat the volume generated by the 85th percentile 24-hour storm event. This is the least preferred option and there must be good reasoning to go this route.

The storm water quality portion of the site design is directed by Performance Requirement 2, which has the purpose of reducing pollutant loads and concentrations in storm water generated on site. This requirement has been met in the design by implementing a combination of Low Impact Development (LID) treatment systems, in the form of bio-swales and rain gardens. The bio-retention swales function as water transport, filtering, and settling devices. They perform these three functions by first collecting flow from the impervious areas across the site. Then, by having a combination of soil and rock media to filter out contaminants. And lastly, by staggering flow at checkdams to increase transport time and allow settling to occur. The raingardens are the main source of stormwater treatment on the site. They receive flows from the swales and provide a combination of filtering and flow staggering. Once runoff enters a raingarden, it will be filtered through an 18" deep vegetative soil layer that filters out and traps contaminants. The

runoff will then be collected by subdrains within an underlying layer of crushed rock, for discharge to the project's storm drain system. This discharge is required because the site's steep slopes may be destabilized by concentrated infiltration of runoff underneath the project's many proposed rain gardens. Since the raingardens are built with an impermeable base, during larger storms that the underdrain is not sized for, the raingarden will fill and discharge into an overflow pipe that is connected to the piped stormwater system.

To meet the treatment requirements set by PR2 the bio-retention filtration system needs to be capable of treating site runoff given a 0.2-inchs per hour rainfall intensity loading rate and assumes an infiltration rate of 5 inches per hour, thus requiring a treatment area equal to 4% of the impervious area in each watershed area. (See Exhibit B for watershed locations)

In order to implement these systems the impervious areas of the site are sloped so that runoff is directed to the bio-retention swales and transported to the rain gardens. This two phased system will remove a large percentage of the contaminants. As seen below, in Table 1 which breaks down treatment calculations per watershed, the area of rain garden treatment that will be provided meets the minimum 4% requirement.

TABLE 1 - RAIN GARDEN SIZING SUMMARY

WATERSHED	IMPERVIOUS AREA (SF)	TREATMENT AREA REQUIRED (SF)	TREATMENT AREA PROVIDED (SF)
A1	22,900	916	440
A2			580
B	49,072	1,963	2,058
C1	27,800	1,112	480
C2			860
D	86,700	3,468	3,747
E	23,100	924	2,190
F	69,396	2,776	2,897
G	27,200	1,088	1,423
H	17,200	688	751
I	22,400	896	2,883
J	0	0	0
K	9,400	376	2,298
L	27,800	1,112	1,174
M	7,100	284	1,530
N	21,800	872	960
O	0	0	0
P	0	0	0
Q	0	0	0
R	0	0	0
TOTAL AREA	411,868	16,475	24,271

C. Performance Requirement 3 (PR3) – Runoff Retention

The purpose of this requirement is to retain the beneficial uses of a project's receiving waters. To meet this requirement a volume of water determined by a formula set in the San Luis Obispo Post Construction Requirement Handbook must be retained on site. Although the project is exempt from this requirement, criteria to conform and limiting site constraints are discussed further in Section V.

D. Performance Requirement 4 (PR4) – Peak Management

The purpose of this requirement is to retain the beneficial uses of a projects receiving waters. The requirement is to manage peak flow storm water runoff. The project designer will need to demonstrate that post-development peak flows discharged from the site do not exceed pre-project peak flows for the 2 through 10 year storm events in the storm water control plan. Though the project is exempt from this requirement, methods to meet the retention quantities are discussed further in Section V.

III. Existing Conditions

The existing site consists of a terraced hillside that is sparsely vegetated with scrub brush and small trees. The paved access road that leads up the hill branches off into multiple paved zones that are used for storage of containers and other harbor related materials. At the top of the hill is a water tank that serves potable water access points across the site. There is also a paved road, Babe Lane, on the east portion of the site. Along Babe Lane there are mobile homes and concrete pads for RV parking.

The defining characteristic of this site is the steep slope of the hillside. The slopes of the hillside range from 10 to 66 percent and the existing roadway is at a 9 percent grade in places. The west two-thirds of the site is composed mainly of fill that has been placed over many years with smaller zones of Monterey Formation and Franciscan Mélange soils. The eastern portion of the site is in a potential landslide area, named Landslide Area 1 in the Geotechnical report. Based on findings from the Geologic and Geotechnical Hazards Study performed by Earth Systems Pacific in July 2014, the soils within the project limits are mostly fill and are not well suited for infiltration. Additionally, the areas near the 8 landslide areas could pose a hazard given heavy rains or oversaturation from infiltration. Because of this, infiltration across the site will need to be limited. Areas of concentrated flow will need to be discharged to not inundate the surrounding native soil.

The existing site drainage is broken up into five watersheds (SEE EXHIBIT A). Watershed 1 encompasses the west side of the site from bottom to top and is 19.3 acres. It is approximately 5% impervious with a Curve Number (CN) weighted average value of 80 and a Time of Concentration of 22.1 minutes. Watershed 1 drains down to Avila Beach Drive and discharges through the existing outfall into San Luis Obispo Bay. Watershed 2 spans the middle of the site from top to bottom and is 10.6 acres. It is approximately 5% impervious with a CN weighted average value of 80 and a Time of Concentration of 22.0 minutes. This watershed drains down to Avila Beach Drive and into the swale on the north side of the road where it flows east. Watershed 3 is located in the southeast corner of the site and is 3.9 acres. It is approximately 23% impervious with a CN weighted average value of 83 and a Time of Concentration of 6.4

minutes. Watershed 3 also drains to Avila Beach Drive and meets up with the flow from Watershed 2. Watersheds 2 and 3 continue in the swale until discharging into a catch basin after Babe Lane. Watersheds 4 and 5 do not influence any portions of the site containing either existing or proposed development, and so have not been included in this report. Between Watersheds 1, 2, and 3 there are 2.4 acres of impervious area. All watersheds, except Watershed 1, discharge into a roadside swale. All discharges eventually outfall to the bay. The peak discharges and flows for the 2, 10, 25, and 100-year storms are shown in the table below (Table 2).

TABLE 2 - EXISTING SITE - PEAK DISCHARGES

WATERSHED/OUTLET	2-YEAR DISCHARGE 2-YR, 24HR = 3.3-IN		10-YEAR DISCHARGE 10-YR, 24HR = 4.6-IN		25-YEAR DISCHARGE 25-YR, 24HR = 5.7-IN		100-YEAR DISCHARGE 100-YR, 24HR = 6.7-IN	
	VOLUME (ACRE-FT)	PEAK FLOW RATE (CFS)	VOLUME (ACRE-FT)	PEAK FLOW RATE (CFS)	VOLUME (ACRE-FT)	PEAK FLOW RATE (CFS)	VOLUME (ACRE-FT)	PEAK FLOW RATE (CFS)
1	2.4	11.3	4.1	22.3	5.6	29.1	7.1	39.2
2	1.3	6.2	2.2	12.3	3.1	16.1	3.9	21.6
3	0.5	3.5	0.9	6.6	1.2	8.4	1.5	11.1
TOTAL	4.2	21	7.2	41.2	9.9	53.6	12.5	71.9

Note: All rainfall data from San Luis Obispo D graphs, rainfalls for lower drainage areas, and includes a full 24-hour storm event. The method used for total volume and flow calculations is SCS TR-20.

IV. Proposed Conditions

The proposed Port San Luis Harbor Terrace Campground includes a main commercial building at the base of the site, 32 hotel/motel units spread across four zones of the site, and generally 3 comfort stations providing restroom and sink access, along with dog washing stations at certain locations. Additionally, there are five paved RV parking areas located on terraces going up the hillside of the site and a harbor storage area in the northwest corner of the site. There are also vehicle parking lots at the base of the site and along roadways providing access to the various areas. In total these impervious areas comprise 9.5 acres of the 32 acre site. The remainder of the site is pervious area, of which some of the east portion of the site will be used for walk-in and car camping. Car camping will occur on Babe Lane. Hotel/motel units are located throughout the site and will be placed to accommodate minimal grading. The harbor storage requires an expansive paved area to accommodate equipment and boat access. The areas between the terraces will be graded to accommodate the steepness of the site and the northern portion of the site will remain undisturbed.

The proposed site is broken up into 20 sub-watersheds (SEE EXHIBIT B). These sub-watersheds, with the exception of Watershed D, are between 0.5 and 3.0 acres and have similar methods of stormwater collection, treatment, and discharge. Watershed D includes area outside the property boundary up to the ridgeline and is approximately 15 acres with approximately 2 acres of impervious area. The runoff from the pervious area of Watershed D drains directly into the piped network, while the runoff from the impervious area is treated through swales and into raingardens within the watershed, before being discharged into the pipe network. The typical treatment methodology used on this site has been to direct the stormwater in a roadside bio-swale and to route the runoff to a lined rain garden for treatment and discharge to the stormwater pipe network and outfall. This method of stormwater routing is being implemented to limit infiltration on site during storm events, where the soil can become saturated, and allows the site to conform to the San Luis Bay Coastal Area Plan which prohibits detention basins and other devices that can cause oversaturation of the underlying soils.

Due to the steepness of the proposed grades, the swales have slopes up to 12%. In order to mitigate flow velocity, and erosion of the bio-swales, check dams shall be built every 20 to 30 linear feet, depending on the slope. Additionally, in order to create level treatment areas, retaining walls, approximately six feet or lower have been provided at many of the raingardens. Using this methodology, combined with the existing and proposed site conditions, runoff coefficients and Time of Concentration (Tc) were developed for each sub-catchment area. The impervious area across the site has increased, which reduces infiltration. Thus the quantity of water leaving the site has increased, however the flow velocity has been maintained, increasing the time of concentration as the water travels through the site, and improving the quality by routing the flows through a treatment train. In the Harbor Terrace Geologic / Geo-Technical Hazards Study by Earth Systems International it is recommended not to increase infiltration of water near the landslide areas. Although the water remains on site for a longer period of time in the proposed conditions, there is less infiltration overall and no low points for inadvertent water collection and soil saturation.

The main discharge point of the site is the piped outfall that discharges into the bay. This will receive flow from all new development, which includes all of the sub-catchments, except N and R. Sub-catchments N and R, and will discharge into the roadside swale. The peak discharges and flow rates for the 2, 10, 25, and 100-year storms are shown in the table below (Table 3). This table also shows a comparison of pre to post-development discharge volumes and flow rates for the site as a whole.

TABLE 3 - PROPOSED SITE - PEAK DISCHARGES								
OUTLET	2-YEAR DISCHARGE 2-YR, 24HR = 3.3-IN		10-YEAR DISCHARGE 10-YR, 24HR = 4.6-IN		25-YEAR DISCHARGE 25-YR, 24HR = 5.7-IN		100-YEAR DISCHARGE 100-YR, 24HR = 6.7-IN	
	VOLUME (ACRE-FT)	PEAK FLOW RATE (CFS)	VOLUME (ACRE-FT)	PEAK FLOW RATE (CFS)	VOLUME (ACRE-FT)	PEAK FLOW RATE (CFS)	VOLUME (ACRE-FT)	PEAK FLOW RATE (CFS)
PIPED OUTFALL	4.9	19.08	8	38.7	10.8	48.7	13.4	56.9
ROADSIDE SWALE	0.3	1.7	0.4	3.15	0.6	3.94	0.7	5.18
TOTAL - PROPOSED	5.2	20.78	8.4	41.85	11.4	52.64	14.1	62.08
TOTAL - EXISTING	4.2	21	7.2	41.2	9.9	53.6	12.5	71.9
Δ RUNOFF	1	-0.22	1.2	0.65	1.5	-0.96	1.6	-9.82

Note: All rainfall data from San Luis Obispo D graphs, rainfalls for lower drainage areas, and includes a full 24-hour storm event. The method used for total volume and flow calculations is SCS TR-20.

V. Additional Considerations

The project has designed its storm water treatment to incorporate Low Impact Development measures around the site in order to meet minimum requirements - PR 1 and PR 2. The developer shall work with the Port San Luis Harbor District to consider achieving additional performance requirements, PR 3- Runoff Retention and PR 4-Peak Management to the maximum extent practical. As noted previously, there are geological and geotechnical safety constraints on this site that directly conflict with the hydrological goals and the county's preferred methods for meeting the Performance Requirements. Runoff retention typically requires rain water capture and infiltration or re-use for toilet flushing or irrigation use. Due to the prohibition of infiltration on site, a below ground cistern or similar storage device would need to be used to hold water for re-use. For consecutive storm events, which would overload a cistern, discharge from the site via the piped network would be required. In order to meet the requirements of PR-4 the post-construction runoff volume must not be greater than the pre-construction volume for the 10-year storm. Currently that volume is calculated to be 1.1 acre-feet, so that volume would need to retained either at grade or below grade and released slowly, into the stormwater pipe network, over a 4 hour period. This could also be achieved with a large enough cistern. Any below ground structures used for water storage would need to be constructed within the limits set by the geotechnical report for earthquake safety.

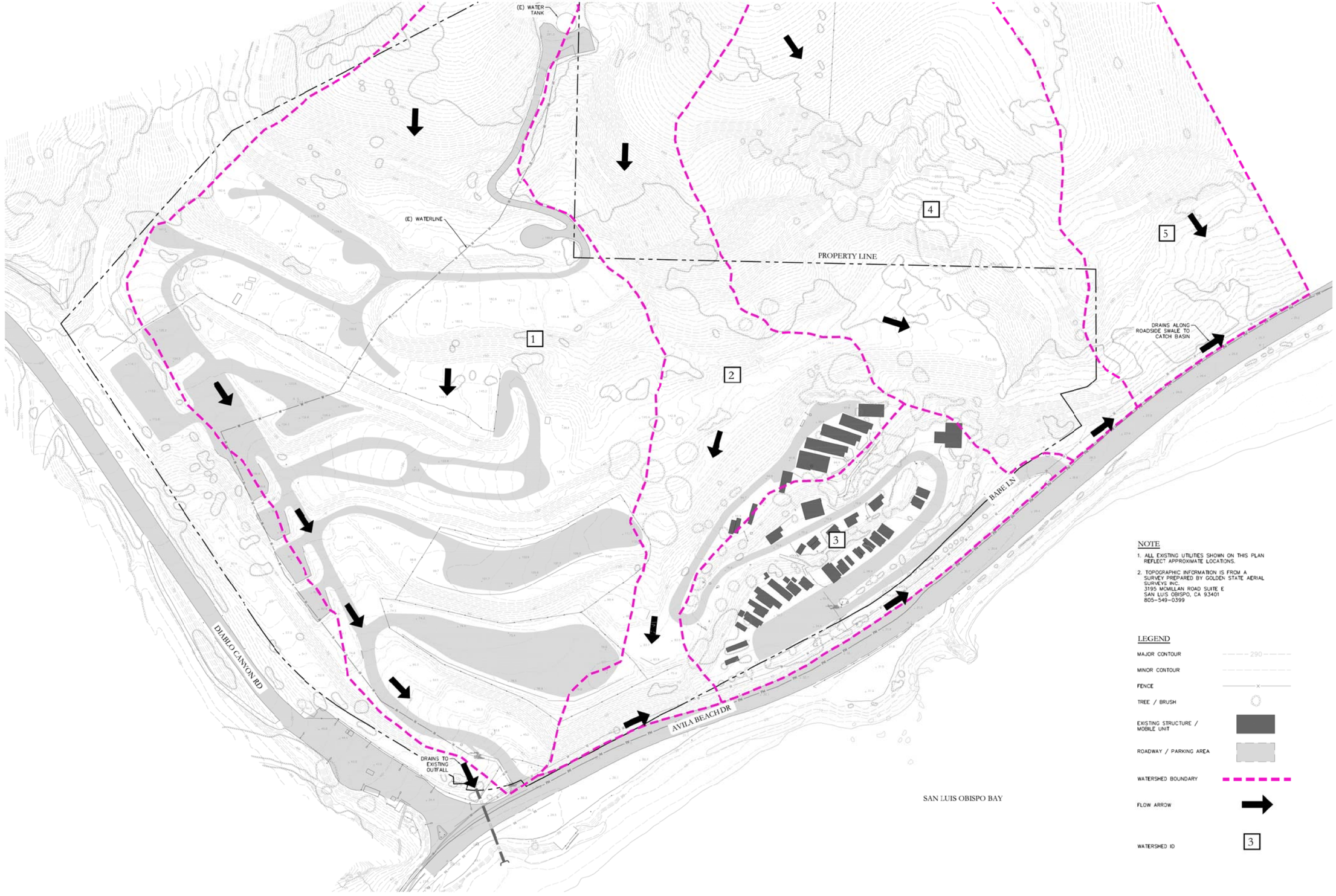


EXHIBIT A - EXISTING CONDITION

Scale 1"=60'
0' 60' 120' 240'
North
July 23, 2014

Port San Luis Harbor Terrace Campground

LAND USE PERMIT SET

lisa wise consulting, inc. | SHERWOOD DESIGN ENGINEERS | WRT | Coastal Conservancy



DRAINAGE NOTES

1. THIS PLAN ONLY DISPLAYS PRIMARY DRAIN INLETS AND PIPING 8" INCHES AND GREATER. STORM DRAIN FACILITIES 6" AND SMALLER ARE NOT SHOWN.

DRAINAGE LEGEND

- RETAINING WALL
- STORM DRAIN
- WATERSHED BOUNDARY
- SWALE
- RAINGARDEN/BIO-RETENTION AREA
- DRAIN INLET
- MANHOLE
- X — WATERSHED ID
- CULVERT

STORM WATER TREATMENT SIZING

WATERSHED ID	TOTAL TRIBUTARY AREA (SF)	IMPERVIOUS AREA (SF)	TREATMENT REQUIRED (SF)	TREATMENT PROVIDED (SF)
A	29,300	22,900	916	1,020
B	66,300	49,072	1,963	2,058
C	129,700	27,800	1,112	1,340
D	650,700	86,700	3,468	3,747
E	65,800	23,100	924	2,190
F	117,600	69,396	2,776	2,897
G	62,000	27,200	1,088	1,423
H	49,000	17,200	688	751
I	55,200	22,400	896	2,883
J	38,900	0	0	0
K	25,300	10,500	420	1,518
L	47,500	27,800	1,112	1,174
M	19,700	7,100	284	1,530
N	74,500	21,800	872	960
O*	21,500	–	–	–
P*	21,800	–	–	–
Q*	46,900	–	–	–
R*	86,400	–	–	–
TOTAL	1,609,000	412,968	16,519	23,491

*ALL AREAS WITHIN WATERSHED BOUNDARY TO REMAIN UNDISTURBED AND UNCHANGED

Scale 1"=60'
0' 60' 120' 240'
North

August 1, 2014

EXHIBIT B - PROPOSED CONDITIONS

LAND USE PERMIT SET

Port San Luis Harbor Terrace Campground

lisa wise consulting, inc. | SHERWOOD DESIGN ENGINEERS | WRT | Coastal Connections

APPENDIX G.
TRANSPORTATION AND TRAFFIC BACKGROUND INFORMATION

Memo

To: Tim Duff, Steve McGrath

From: Lisa Wise Consulting and Central Coast Transportation Consulting

Date: February 10, 2014

Re: Harbor Terrace January 21, 2014 Traffic Scoping Meeting Summary

The following memo summarizes topics discussed during the January 21, 2014 Traffic Scoping Meeting regarding the Harbor Terrace project. The memo concludes with a list of action-items as determined during the meeting.

ATTENDEES:

- San Luis Obispo County (County):
  - Robert Fitzroy (Planning)
  - Ryan Hostetter (Planning)
  - Frank Honeycutt (Public Works)
  - Jeremy Ghent (Public Works)
- State Coastal Conservancy (SCC):
  - Tim Duff
- Port San Luis Harbor District (PSLHD):
  - Steve McGrath
- Central Coast Transportation Consulting (CCTC):
  - Joe Fernandez
- Lisa Wise Consulting (LWC):
  - Menka Sethi

MEETING OBJECTIVES:

- Seek County feedback on proposed study intersections, roadway segments, required analysis time period, and cumulative forecasting approach.
- Coordinate Harbor Terrace traffic analysis with County's Avila Circulation Study update.

MEETING SUMMARY:

1. **Project Timeline & Summary**
   - Project History: PSLHD introduced project history as a partnership between SCC and PSLHD. SCC is funding entitlements for the project.
   - Net RV Count: California Coastal Commission has expressed support for the project for a key reason that it will relocate RV's from Avila Beach Drive up to the Harbor Terrace site. Project analyses should incorporate findings for RV counts net of the 67 RV's that currently use the Harbor Terrace site and that will be relocated from Avila Beach Drive.
   - Public Parking: San Luis Bay Area plan specifies project is to provide approx. 48,000 sq. ft of public parking across the site.
   - Expected Timeline: LWC and PSLHD outlined project background and timeline:

- Feb. 12, 2014: Public outreach meeting and special PSLHD Harbor Commission meeting
- Early March, 2014: Project re-submittal to County
- March 3, 2014: Notice of Preparation
- Week of March 17, 2014: Public Scoping Meeting
- Fall 2014: Draft EIR

2. Study Intersections and Roadway Segments

- Primary Study Intersections: CCTC presented two study intersections:
  - Avila Beach Drive & San Luis Bay Drive
  - First Street & Avila Beach Drive
- Alternative Study Intersection: CCTC presented third possible study intersection of San Miguel and Avila Beach Drive. County relayed it saw little benefit in studying the intersection, and would like to review trip generation estimates to determine if any intersections require study. County suggested that intersection analysis may not be necessary because project has already been analyzed as a part of Avila Circulation Study. County also mentioned Babe Lane as potential study location.
- Project Exit/Entry Patterns: Proximity of the northern curb-cut (along the site Avila Beach Drive frontage) to Diablo Canyon Road is of concern to the County. Consider a project layout that results in primary visitor entry/exit from Babe Lane. Avoid queuing. Perform a corresponding auto-turn analysis.

3. Analysis Time Period

- May Traffic Counts: San Luis Bay Area Plan stipulates traffic counts are to be taken in May during the mid-week evening timeframe. County agreed to May mid-week evening timeframe.
- Peak Hour: County proposed the Harbor Terrace project traffic study also analyze summer peak hour trips, and relayed the community may also be interested in the summer peak-hour analysis. CCTC suggested a "factor" analysis to study the summer peak-hour.
- Diablo Canyon Shift Change: County recommended the project traffic study incorporate the shift change at Diablo Canyon. PSLHD recounted shift changes occur at non-peak hours relative to anticipated post-build out Harbor Terrace use.
- Realistic Traffic Patterns: Analyze traffic patterns that are representative of anticipated traffic patterns that would result from project build out. Define well the commissary component of the project. May mid-week evening timeframe may not represent such patterns even though this timeframe is required of the San Luis Bay Area Plan.

4. Cumulative Forecasting Approach

- Current Model Assumptions: County model incorporates Harbor Terrace build out as put forth in the San Luis Bay Area plan. County model incorporates most major projects currently in discussion for the area, except the Chevron Tank Farm Road project (as it will require a General Plan amendment.)
- Forecasting Approach: County recommends using current model for cumulative forecasting. Model will be updated in the coming year, but current model is appropriate for use given the project's location.

5. Plans for Class I Bike/Pedestrian Path Planned Along Project Frontage

- Pedestrian Crossing: County put forth the project should provide a pedestrian crossing that connects the site to the beach. CCTC will perform sight-line checks. County standard for the crossing is in-pavement mid-block flashing lights if pedestrian demand warrants improved design.
- Class I Bike/Pedestrian Path Timing: Assume the path will be implemented beyond the project horizon.

6. Coordinating Traffic Counts with Other Studies

- County Avila Circulation Study Update Timing: County anticipates update will be adopted in December 2014 and will go into effect 60 days thereafter. Project traffic study will be done under old model. Project EIR likely adopted when new model is in effect. New and old models should produce nearly identical results for the project portion of Avila Beach Drive.
- Avila Circulation Study Update Traffic Count Coordination: Harbor Terrace project will be studying two intersections that will also be studied in the County's Avila Circulation Study update. County proposed it would contract out for the traffic counts, and the project could reimburse it for a pro rata share of the cost. County will share data with project team immediately after counts are taken in May 2014.

ACTION ITEMS:

COUNTY:

1. Confirm traffic county arrangement whereby Harbor Terrace will reimburse County for cost of Avila Beach Drive / San Luis Bay Drive and First Street / Avila Beach Drive traffic counts.

CCTC

1. Send trip generation estimates to County. – Pending program refinement per email message of Jan. 28, 2014 from Joe Fernandez to Jeremy Ghent.

Port San Luis Harbor Terrace

Transportation Impact Study

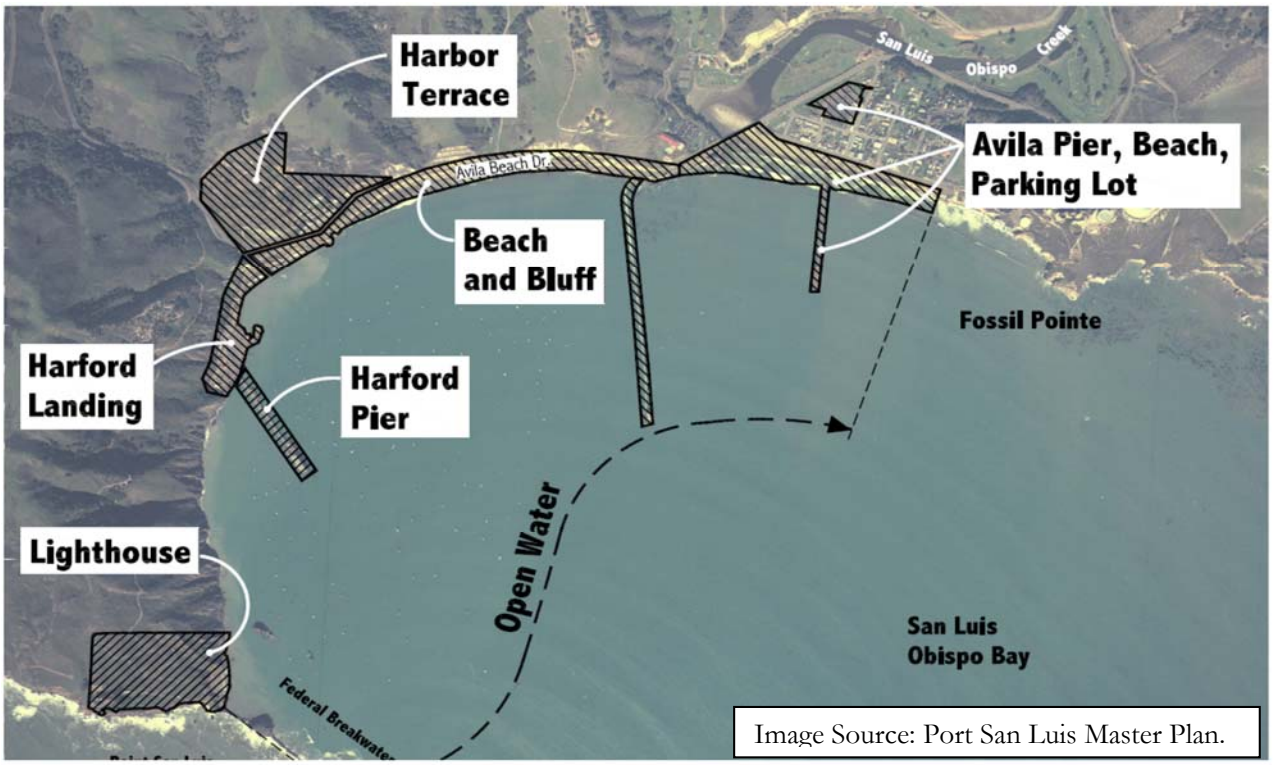


Image Source: Port San Luis Master Plan.

Central Coast Transportation Consulting

895 Napa Avenue, Suite A-3

Morro Bay, CA 93442

(805) 316-0101

August 2014

Central Coast Transportation Consulting

Traffic Engineering & Transportation Planning

Executive Summary

This study evaluates the potential transportation impacts of the proposed Harbor Terrace project located in the Port San Luis Harbor District. The project would develop a campground, office space for Port administration, and would provide public parking consistent with the San Luis Bay Coastal Area Plan. The project would generate an estimated 1,215 new daily trips and 126 new trips during the weekday PM peak hour.

This study focused on two study intersections on Avila Beach Drive: Babe Lane and First Street. Three roadway segments were studied: Avila Beach Drive near San Luis Bay Drive, and segments of US Highway 101 to the north and south.

The impacts of the project were evaluated under existing and future (cumulative) conditions. All of the study locations within Avila Beach are expected to operate acceptably under all studied scenarios. The segments of southbound US Highway 101 currently operate unacceptably at LOS E, and would continue to operate unacceptably in the future both with and without the project.

The results of this study are consistent with those of the Avila Circulation Study which was the basis for the transportation section of the Port San Luis Program EIR (2003). No new impacts or mitigation measures have been identified in this study.

The proposed pedestrian crossings of Avila Beach Drive will require the implementation of no parking zones and vegetation maintenance, and may require minor grading to ensure adequate sight distance is provided. The forecast inbound left turning volumes are on the cusp of warranting a dedicated left turn lane. These volumes should be monitored and the addition of a left turn lane or bypass lane considered if justified by conditions in the field.



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Figure 3: Traffic Volume Summary 9

Appendix A: Traffic Counts
Appendix B: LOS/Queue Calculation Sheets

Introduction

This study evaluates the potential transportation impacts of the proposed Harbor Terrace project located on Avila Beach Drive in the Port San Luis Harbor District. The project includes the development of a campground with associated uses, office space intended for the Port Administration offices, and public parking as required by the San Luis Bay Coastal Area Plan (LCP). The project's components are described in detail in Table 5.

The project's location and study intersections are shown on **Figure 1**, and **Figure 2** shows the site plan. The following intersections were evaluated during the weekday evening (4-6 PM) time period:

1. Avila Beach Drive/Babe Lane (project driveway)
2. Avila Beach Drive/First Street

The following roadway segments were evaluated using PM peak hour volumes:

- Avila Beach Drive west of San Luis Bay Drive
- US Highway 101 north of San Luis Bay Drive
- US Highway 101 south of Avila Beach Drive

The study intersections were evaluated under these analysis scenarios:

1. **Existing Conditions** reflect recently collected traffic counts and the existing transportation network.
2. **Existing Plus Project Conditions** add project generated traffic to Existing Conditions volumes.
3. **Cumulative Conditions** reflect future traffic conditions reflective of buildout of the Avila Beach area, developed using the Avila Traffic Model.
4. **Cumulative Plus Project Conditions** add project traffic to Cumulative Conditions volumes.

A description of the analysis approach follows Figures 1 and 2.

Figure 1: Project and Study Locations



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Legend:

- Project Site
- 7 - Study Intersection

August 2014

Port San Luis Harbor Terrace

Figure 2: Site Plan



Source: Lisa Wise Consulting

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Port San Luis Harbor Terrace

Analysis Methods

The analysis approach was developed based on the County of San Luis Obispo and Caltrans standards.

County Facilities

The County's Traffic Impact Study policies provide guidelines for identifying transportation impacts. The study intersections are located within the Avila Beach Urban Reserve Line, where Level of Service (LOS) D is acceptable but LOS E is not. The San Luis Bay Coastal Area Plan (LCP Section B2) provides further guidance that Avila Beach Drive shall not be subject to traffic levels exceeding LOS C during the PM peak hour based on counts conducted on a weekday in May.

Caltrans Facilities

Caltrans controls US Highway 101 and relies on LOS to identify impacts. Caltrans strives to maintain operations at the LOS C/D threshold on state-operated facilities, where LOS C is acceptable but LOS D is not. If an existing State Highway facility is operating at LOS D, E, or F the existing service level should be maintained.

Level of Service Thresholds

The level of service thresholds for intersections based on the 2010 Highway Capacity Manual (HCM) are presented in Table 1. The study intersections were analyzed with the Synchro 8 software package applying the 2010 HCM methods.

Table 1: Intersection Level of Service Thresholds

Signalized Intersections[1]		Stop Sign Controlled Intersections[2]	
Control Delay (seconds/vehicle)	**Level of Service**	**Control Delay (seconds/vehicle)**	**Level of Service**
≤ 10	A	≤ 10	A
> 10 - 20	B	> 10 - 15	B
> 20 - 35	C	> 15 - 25	C
> 35 - 55	D	> 25 - 35	D
> 55 - 80	E	> 35 - 50	E
> 80	F	> 50	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.*

Roadway segment thresholds are summarized in Table 2. The study roadway segment on Avila Beach Drive was evaluated using generalized daily volume thresholds based on the LCP, and the mainline segments of Highway 101 were evaluated using a vehicle density calculation consistent with the 2010 HCM.

Table 2: Segment Level of Service Thresholds

Freeway Segments[1]		Avila Beach Drive (2-lane undivided arterial)[2]	
Density (passenger car/mile/lane)	**Level of Service**	**Peak Hour Two-Way Volume**	**Level of Service**
≤ 11	A	≤ 1,180	A
> 11 - 18	B	> 1,180 - 1,380	B
> 18 - 26	C	> 1,380 - 1,580	C
> 26 - 35	D	> 1,580 - 1,780	D
> 35 - 45	E	> 1,780 - 2,000	E
> 45 (demand exceeds capacity)	F	> 2,000	F

1. Source: Exhibit 11-5 of the 2010 *Highway Capacity Manual.*
2. Source: 2007 Avila Valley Circulation Study, which derived capacities by blending 1992 and 1997 HCM approaches.

Existing Conditions

This section describes the existing transportation system and current operating conditions in the study area.

EXISTING ROADWAY NETWORK

US Highway 101 is a north-south facility connecting Los Angeles to San Francisco. In the vicinity of the project it is a four-lane freeway with full access interchanges at Avila Beach Drive and San Luis Bay Drive. There is an auxiliary lane serving southbound traffic roughly between the San Luis Bay Drive and Spyglass Drive interchanges.

Avila Beach Drive is an east-west arterial connecting US Highway 101 with Port San Luis. Along the project frontage it consists of two lanes and is posted with a speed limit of 40 miles per hour (mph).

San Luis Bay Drive is an arterial roadway connecting US Highway 101 to Avila Beach Drive, generally used for local trips and trips to and from the north on US Highway 101.

First Street is a collector roadway serving the downtown area of Avila Beach. The signalized intersection of First Street and Avila Beach Drive serves high volumes of pedestrians and cyclists and provides a controlled crossing location with dedicated pedestrian and bicycle phases.

Babe Lane is a local road serving the project site. It is stop controlled where it intersects with Avila Beach Drive.

EXISTING PEDESTRIAN AND BICYCLE FACILITIES

Pedestrian facilities include sidewalks, crosswalks, multi-use paths, and pedestrian signals at signalized intersections. The First Street/Avila Beach Drive intersection provides pedestrian crosswalks and a pedestrian scramble phase.

Bicycle facilities consist of multi-use paths separate from the roadway (Class I), on-street striped bike lanes (Class II), and signed bike routes (Class III). The Bob Jones City-to-the-Sea Trail is mostly a Class I multi-use path within Avila Beach. Avila Beach Drive is a Class III route east of San Luis Bay Drive, and is identified as a recreational route west of San Luis Bay Drive. San Luis Bay Drive is a Class III bike route.

EXISTING TRANSIT SERVICE

The Avila Beach Trolley provides free fixed route service between Pismo Beach and Avila Beach on Friday evenings, Saturdays, and Sundays during the summer. Weekend service is provided hourly between 10 AM and 6 PM. The Trolley connects to the South County Transit network which serves the Five Cities area with four routes.

The San Luis Obispo Regional Transit Authority (RTA) provides regional fixed-route and dial-a-ride services to San Luis Obispo County. Route 10 serves the South County, with a stop in Pismo Beach.

EXISTING TRAFFIC CONDITIONS

Traffic counts for weekday PM peak hour conditions were collected at the study locations in May 2014 as set forth in the San Luis Bay Area Plan. Traffic counts on US Highway 101 were obtained from SLOCOG's Highway 101 Mobility Study data. The intersection turning volumes at Avila Beach Drive/Babe Lane were derived from a nearby roadway segment count. The traffic count sheets are included in Appendix A.

Figure 3 shows the existing peak hour traffic volumes. Table 3 presents the LOS for the study intersections based on the thresholds shown in Tables 1 and 2, with detailed calculation sheets included in Appendix B.

Table 3: Existing PM Peak Hour LOS

Intersections		
	Delay (sec/veh)[1]	**LOS**
1. Avila Beach Drive/Babe Lane	0.4 (12.3)	A (B)
2. Avila Beach Drive/First Street	6.7	A
Segments		
	Two-way Volume	**LOS**
Avila Beach Drive west of San Luis Bay Drive	1,328	B
	Density (pc/mi/ln)[2]	**LOS**
US Highway 101 north of San Luis Bay Drive		
Northbound	13.6	B
Southbound	***37.5***	***E***
US Highway 101 south of Avila Beach Drive		
Northbound	15.3	B
Southbound	***41.8***	***E***

1. HCM average control delay in seconds per vehide. Delay for side street stop controlled intersection reported as average delay followed by worst approach delay in parenthesis.
2. Passenger cars per mile per lane.
Unacceptable operations shown in ***bold italics***.

All of the study locations within Avila Beach operate at LOS B or better during the weekday PM peak hour. Both study segments of southbound Highway 101 operates at LOS E during the weekday PM peak hour, which is below Caltrans' desired LOS C service level.

Table 4 summarizes the 95th percentile queues for the study intersections.

Table 4: Existing PM Peak Hour 95th Percentile Queues[1]

Intersection	Movement	Storage Length	Existing Queue Length (ft)
1. Avila Beach Drive/Babe Lane	Southbound Shared Lane	> 300 ft	3
2. Avile Beach Drive/First Street	Eastbound Through	> 300 ft	220
	Northbound Right	60 ft	47

1. Queue length that would not be exceeded 95 percent of the time. Queues are reported only for critical movements.

The longest field observed queues occurred on the eastbound approach to the Avila Beach Drive/First Street intersection, which coincides with commuters departing from Diablo Canyon. The queue did not extend to the bridge during field observations and cleared in one signal cycle. The queues shown in Table 4 are consistent with field observations.

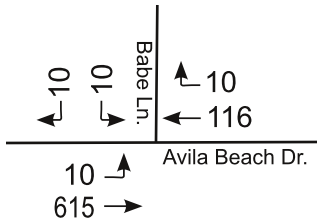
Figure 3: Traffic Volume Summary

Project Trip Distribution

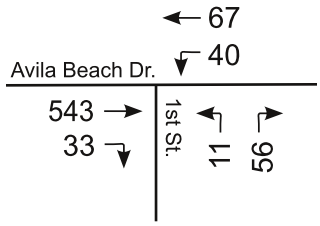


Existing Peak Hour Volumes

1.

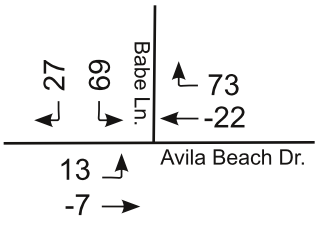


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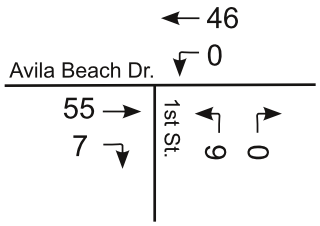


Project Trip Assignment

1.

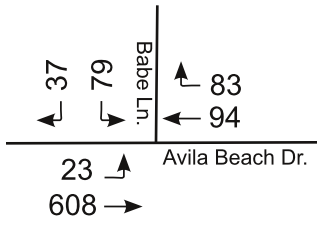


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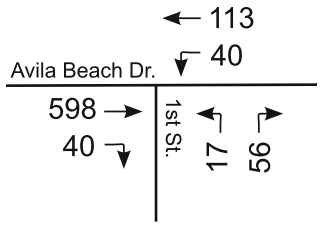


Existing Plus Project Volumes

1.

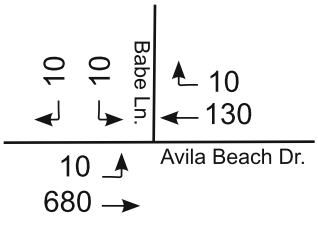


2.

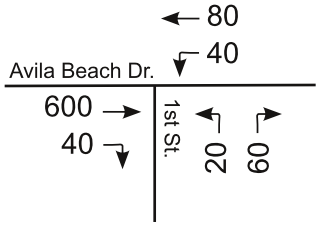


Cumulative No Project Volumes

1.

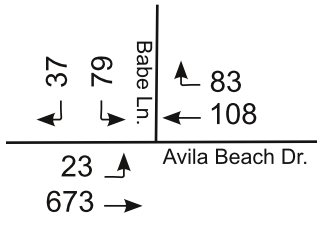


2.

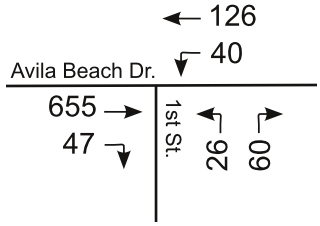


Cumulative Plus Project Volumes

1.



2.



Legend:

7 - Study Intersection

xx - PM Peak Hour Traffic Volumes

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Existing Plus Project Conditions

This section evaluates the impacts of the proposed project on the surrounding transportation network. Existing Plus Project conditions reflect existing traffic levels plus the estimated traffic generated by the proposed project.

PROJECT TRAFFIC ESTIMATES

The amount of project traffic affecting the study intersections is estimated in three steps: trip generation, trip distribution, and trip assignment. Trip generation refers to the total number of new 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

The project's trip generation estimates, summarized in Table 5, were developed using rates in the Institute of Transportation Engineers' *Trip Generation Manual.*

Table 5: Project Trip Generation

Use	ITE Land Use (Code)[2]	Size	Daily	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
Meeting/Conference/ Office/Reception	General Office (710)	15,800 s.f.	174	4	20	24
Restaurant	Sit-Down Restaurant (932)	3,000 s.f.	381	18	12	30
		Pass-By Trips	*-164*	*-8*	*-5*	*-13*
Market	Convenience Market (852)	2,000 s.f.	690	34	35	69
		Pass-By Trips	*-421*	*-21*	*-21*	*-42*
Park/Open Space	County Park (412)	1 acre	2	1	1	2
RV Sites (95), Tent Sites (56)[1]	Campground/RV Park (416)	96 units	260	17	9	26
Cabins	Hotel (310)	31 units	253	10	9	19
Harbor Expansion Area	General Light Industrial (110)	10,000 s.f.	30	1	9	10
Manager's Residence	Single Family Residential (210)	1 unit	10	1	0	1
		Total Driveway Trips	1,800	86	95	181
		Pass-By Trips	*-585*	*-29*	*-26*	*-55*
		Net New Trips	**1,215**	**57**	**69**	**126**

1. Net new RV sites- reflects removal of 55 RV spaces from Avila Beach Drive as a part of the project.
2. Pass-By Trip reductions based on average of surveyed data in ITE manual (43% for restaurant, 61% for market). Campground and market daily trips estimated as 10 times PM peak hour.
Source: ITE *Trip Generation Manual,* 9th Edition, 2012; CCTC, 2014.

The project trips are categorized as new trips and pass-by trips. Pass-by trips are made by drivers already passing by the site who stop at the project before continuing to their original destination. Pass-by trips increase the number of trips at the project driveways, but do not change the volume approaching and departing the project on Avila Beach Drive. New trips are from drivers whose primary destination is located on the project site. These new trips increase traffic along Avila Beach Drive and the project driveways. Pass-by trip reductions were applied to the restaurant and convenience market components of the project, since typically a large portion of traffic from these uses are trips already on the adjacent roadway network.

This is a conservative estimate of the project's most intense traffic generating uses, and typical operations are expected to generate fewer trips. The Campground/Recreational Vehicle Park (ITE Land Use #416) survey data includes trips generated by a variety of on-site facilities, including

recreational facilities such as swimming pools, convenience stores, and laundry facilities. The estimate in Table 5 adds trips for the convenience market to the campground sites, potentially overstating the number of trips generated. Furthermore, the trip generation assumes 100% occupancy of the campground sites and cabins. Typical weekday occupancy would be lower.

Finally, project trips were assigned exclusively to the Babe Lane entry to show a worst case operational scenario. The second access driveway would serve a portion of the project traffic, spreading the traffic flow.

The project trip generation estimate shows 1,215 new daily trips and 126 new PM peak hour trips.

Trip Distribution and Assignment

The directions of approach and departure for project trips were estimated based on existing trip patterns and the locations of complementary land uses. Project trips were assigned to individual intersections based on the trip distribution percentages, and were then added to the existing traffic volumes for Existing Plus Project Conditions. **Figure 3** shows the trip distribution percentages, project trip assignment, and Existing Plus Project volumes.

IMPACT ANALYSIS

Table 6 summarizes the automobile operating conditions under Existing and Existing Plus Project conditions.

Table 6: Existing and Existing Plus Project Peak Hour LOS

Intersections				
	Existing PM		**Existing Plus Project PM**	
	Delay (sec/veh)[1]	**LOS**	**Delay (sec/veh)[1]**	**LOS**
1. Avila Beach Drive/Babe Lane	0.4 (12.3)	A (B)	2.4 (17.3)	A (C)
2. Avila Beach Drive/First Street	6.7	A	7.6	A
Segments				
	Existing PM		**Existing Plus Project PM**	
	Two-way Volume	**LOS**	**Two-way Volume**	**LOS**
Avila Beach Drive west of San Luis Bay Drive	1,328	B	1,429	C
	Density (pc/mi/ln)[2]	**LOS**	**Density (pc/mi/ln)[2]**	**LOS**
US Highway 101 north of San Luis Bay Drive				
Northbound	13.6	B	13.8	B
Southbound	***37.5***	***E***	***37.7***	***E***
US Highway 101 south of Avila Beach Drive				
Northbound	15.3	B	15.5	B
Southbound	***41.8***	***E***	***42.1***	***E***

1. HCM average control delay in seconds per vehide. Delay for side street stop controlled intersection reported as average delay followed by worst approach delay in parenthesis.
2. Passenger cars per mile per lane.
Unacceptable operations shown in ***bold italics***.

All of the study locations within Avila Beach operate acceptably at LOS C or better with the addition of project traffic. Vehicle queues at all study locations were acceptable.

The southbound segments of US Highway 101 would continue to operate unacceptably, but the service level would not change and the project would increase the vehicle density on the highway by less than one percent.

Bicycles

Bicycle deficiencies would occur if the project disrupts existing or planned bicycle facilities or is otherwise incongruent with the County's Bikeways Plan. There is a multi-use path planned parallel to Avila Beach Drive along the project frontage. The project would not conflict with this or any other planned bicycle facility.

Pedestrians

Pedestrian deficiencies would occur if the project fails to provide safe and accessible pedestrian connections between the project and nearby destinations.

The project proposes two pedestrian crosswalks across Avila Beach Drive, one adjacent to each project entrance as shown on Figure 2. These crosswalks would also serve visitors parking on the project site, and would connect the project site to the multi-use path planned along the ocean side of Avila Beach Drive as well as the nearby beaches.

Pedestrian volumes crossing Avila Beach Drive should be monitored to determine the need, if any, of enhanced crossing treatments such as in-pavement flashers. Detailed site designs should be reviewed once they are available to ensure that pedestrian facilities are continuous and connect to likely destinations to the maximum extent possible. Sight distance related to the crosswalks is discussed in the Site Access section later in this chapter.

Transit

Transit deficiencies would occur if the project disrupts existing or planned transit facilities or services or conflicts with County plans, guidelines, policies, or standards.

The nearest transit stop to the project is served the seasonal Avila Trolley, which stops in front of Fat Cats restaurant approximately ¼ mile southwest of the project. The Port San Luis Master Plan calls for a new trolley stop at one of the proposed project crosswalks. The project would not result in any transit deficiencies.

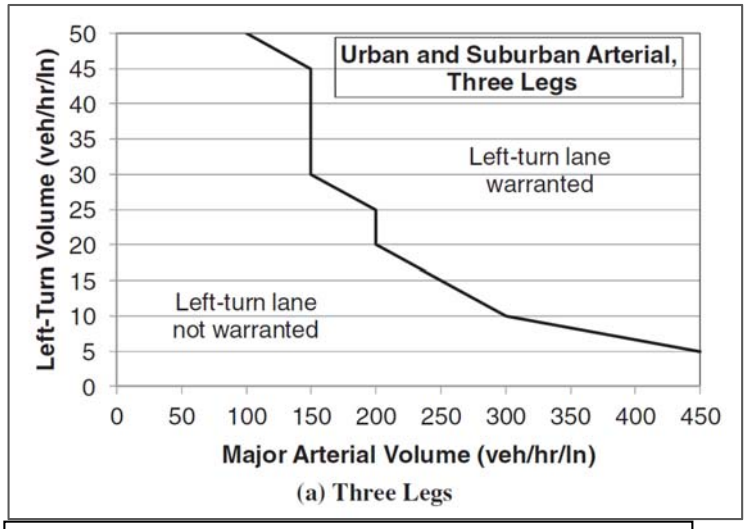
Site Access and On-Site Circulation

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 or unsafe conditions.

The proposed site plan is shown on **Figure 2**. Primary project access will be provided via Babe Lane, where there would be a short term parking facility and payment kiosks. Secondary project access will be provided via a second entry located approximately 150 feet east of Diablo Canyon Road. Both project access points currently exist. While additional spacing would be desirable between the second entry and Diablo Canyon Road, site topography and the need for secondary emergency access preclude other alternatives.

No turn lanes are provided on Avila Beach Drive at the project access points. The need for left turn lanes was evaluated based on the approach recommended in NCHRP Report 745, *Left-Turn Accommodations at Unsignalized Intersections*. This document provides recommended thresholds for determining if a left turn lane is warranted. The warrants are an important element of the decision making process, but must be considered with other factors such as design consistency within a corridor. The project would generate relatively few left turns into the project site, since most campground users would come from the east. However, some traffic would arrive from the Harford Landing area to the west. The project trip estimates show 13 inbound left turns during the peak hour, which would be split between the two driveways. The existing volume on Avila Beach Drive is 365 vehicles per hour per

lane. Based on Figure 4 from NCHRP 745, shown below, a left turn lane would be warranted with a minimum volume of roughly eight left turns. We recommend monitoring traffic levels at the project driveways and making a determination of the need for left turn lanes based on field observed conditions after project occupancy.

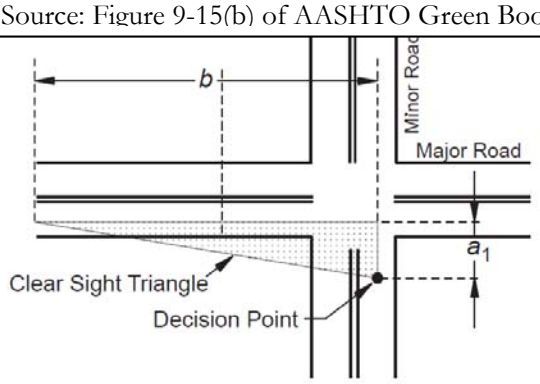


Source: Figure 4 of NCHRP Report 745, 2013.

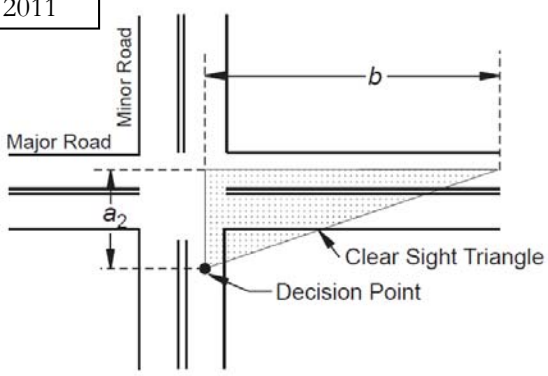
Two types of sight distance are relevant for the project entries and crosswalks: intersection sight distance and stopping sight distance. Intersection sight distance allows a driver on a minor road to depart from the intersection and enter or cross the main road without causing undue delay to the major road traffic. Intersection sight distance requires a clear sight triangle free of visual obstructions, as illustrated in the figure below.

The recommended dimensions 'a' and 'b' of the clear sight triangle are primarily a function of the design vehicle, design speed, and roadway widths. The 'b' dimension is 440 feet per Table 405.1 of the Caltrans Highway Design Manual (HDM). The intent of the intersection sight distance criteria is to allow the intersection to operate smoothly, with minimal effect on major street traffic flow. Values below the recommended minimum would require major street traffic to slow or stop as minor street vehicles enter the traffic stream. The values for intersection sight distance are longer than the stopping sight distance, discussed below.

Source: Figure 9-15(b) of AASHTO Green Book, 2011



Departure Sight Triangle for Viewing Traffic Approaching the Minor Road from the Left



Departure Sight Triangle for Viewing Traffic Approaching the Minor Road from the Right

Stopping sight distance is the sum of two values: 1) the distance traveled by the vehicle from the instant the driver sees an object until the brakes are applied plus 2) the distance needed to stop the vehicle. This is the minimum length of clear roadway that must be visible for a motorist to stop for a pedestrian, vehicle, or object in the road. The HDM allows for the use of stopping sight distance in lieu of intersection sight distance at locations where restrictive conditions (such as excessive costs or immitigable environmental impacts) exist. The minimum stopping sight distance for a 40 mph design speed is 300 feet per the HDM.

At a minimum, the project should maintain a clear sight triangle providing at least 300 feet of stopping sight distance for the project driveways and crosswalks. This will require parking restrictions along portions of both sides of Avila Beach Drive near the project entrances and may require vegetation removal/maintenance. The provision of 440 feet of intersection sight distance is desirable, and would minimize the disruption of flow on Avila Beach Drive caused by vehicles exiting the project.

Cumulative Conditions

Cumulative conditions represent build-out of the Avila Beach area.

CUMULATIVE ROADWAY NETWORK

While several capacity expansions are planned in the area, particularly in the vicinity of the US Highway 101 interchanges, no changes are planned to the study locations. Therefore the roadway geometrics have not been changed from Existing conditions. The project would be required to contribute traffic impact fees which would apply towards future improvements in the area.

CUMULATIVE TRAFFIC FORECASTS

The Avila Traffic Model was developed to forecast future travel patterns in the Avila Beach area. The model incorporates future land uses to produce future year traffic forecasts. The most recent version of the model was calibrated and validated to year 2006 data, and the future year scenario was developed to represent build-out conditions in the area, nominally year 2020.

The model was applied to develop Cumulative forecasts using the difference method, where the model's projected growth of future year volumes over base year volumes was added to the recently collected traffic counts. Project traffic was added to Cumulative conditions volumes to yield Cumulative Plus Project conditions as shown in **Figure 3**.

CUMULATIVE TRAFFIC CONDITIONS

Table 7 summarizes Cumulative traffic conditions with and without the project.

Table 7: Cumulative and Cumulative Plus Project Peak Hour LOS

Intersections	Cumulative PM		Cumulative + Project PM	
	Delay (sec/veh)[1]	LOS	Delay (sec/veh)[1]	LOS
1. Avila Beach Drive/Babe Lane	0.4 (13.1)	A (B)	2.4 (19.2)	A (C)
2. Avila Beach Drive/First Street	7.9	A	7.9	A (C)
Segments	**Cumulative PM**		**Cumulative + Project PM**	
	Two-way Volume	LOS	Two-way Volume	LOS
Avila Beach Drive west of San Luis Bay Drive	1,425	C	1,526	C
	Density (pc/mi/ln)[2]	LOS	Density (pc/mi/ln)[2]	LOS
US Highway 101 north of San Luis Bay Drive				
Northbound	16.5	B	16.7	B
Southbound	***40.8***	***E***	***41.1***	***E***
US Highway 101 south of Avila Beach Drive				
Northbound	18.1	C	18.3	C
Southbound	***45.1***	***F***	***45.4***	***F***

1. HCM average control delay in seconds per vehide. Delay for side street stop controlled intersection reported as average delay followed by worst approach delay in parenthesis.
2. Passenger cars per mile per lane.
Unacceptable operations shown in ***bold italics***.

The study locations within Avila Beach would operate acceptably at LOS C or better. No queuing issues are expected. The southbound segments of US Highway 101 would operate at LOS E and F both with and without the project. The addition of project traffic would not change the service level on US Highway 101, and would increase the density of mainline flow by less than one percent.

References

American Association of State Highway and Transportation Officials (AASHTO). 2011. A Policy on Geometric Design of Highways and Streets.

California Department of Transportation. 2002. Guide for the Preparation of Traffic Impact Studies.

_____. 2012. Highway Design Manual.

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_____. 2007. Traffic Impact Study Policies.

Crawford Multari & Clark Associates. 2003. Final Program Environmental Impact Report for the Port San Luis Harbor District 2003 Port Master Plan SCH#2003081007.

National Cooperative Highway Research Program (NCHRP) Report 745. 2013. Left-Turn Accommodations at Unsignalized Intersections.

Port San Luis Harbor District. 2004. Part San Luis Harbor District Port Master Plan.

TPG Consulting. 2007. Avila Valley Circulation Study Update.

Transportation Research Board. 2010. Highway Capacity Manual.

Appendix A: Traffic Count Sheets

Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

County of San Luis Obispo
1087 Santa Rosa Street
San Luis Obispo, CA 93408

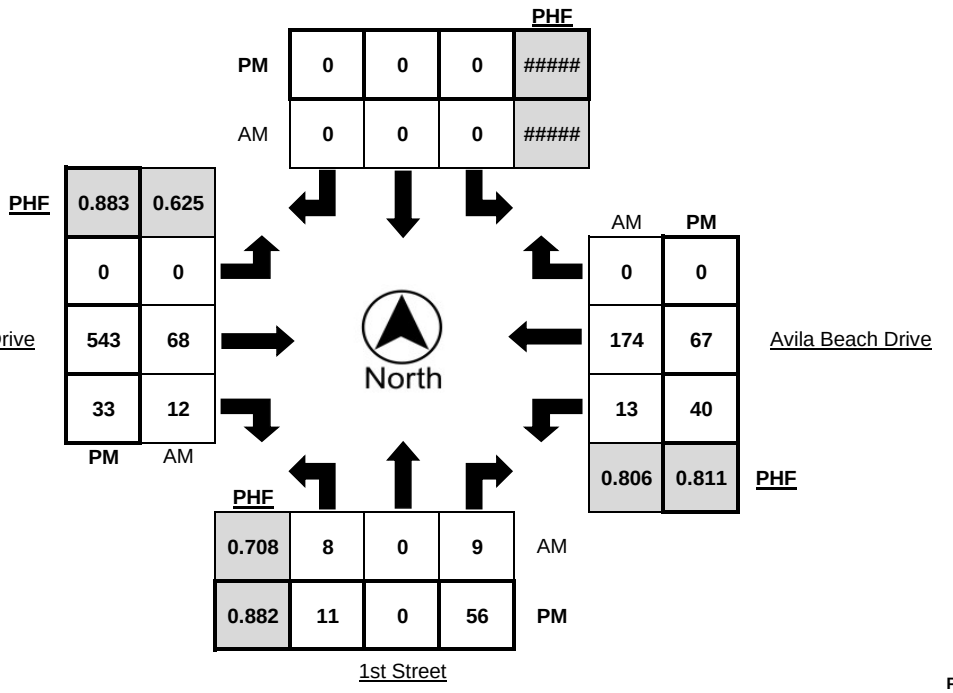
LOCATION Avila Beach Drive @ 1st Street
LATITUDE 35.180491°
COUNTY San Luis Obispo
LONGITUDE -120.735933°
COLLECTION DATE Tuesday, May 20, 2014
WEATHER Sunny and Clear

	Northbound				Southbound				Eastbound				Westbound			
Time	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	2	0	4	0	0	0	0	0	0	26	6	1	3	40	0	0
7:15 AM - 7:30 AM	0	0	2	0	0	0	0	0	0	24	3	2	4	51	0	0
7:30 AM - 7:45 AM	2	0	1	0	0	0	0	0	0	14	0	1	3	55	0	2
7:45 AM - 8:00 AM	4	0	2	0	0	0	0	0	0	4	3	1	3	28	0	4
8:00 AM - 8:15 AM	2	0	1	0	0	0	0	0	0	8	3	1	4	32	0	0
8:15 AM - 8:30 AM	2	0	2	0	0	0	0	0	0	10	1	1	9	19	0	1
8:30 AM - 8:45 AM	2	0	1	1	0	0	0	0	0	7	2	2	6	25	0	1
8:45 AM - 9:00 AM	2	0	6	0	0	0	0	0	0	12	1	0	12	23	0	0
TOTAL	**16**	**0**	**19**	**1**	**0**	**0**	**0**	**0**	**0**	**105**	**19**	**9**	**44**	**273**	**0**	**8**

	Northbound				Southbound				Eastbound				Westbound			
Time	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	2	0	18	0	0	0	0	0	0	59	3	0	11	33	0	0
4:15 PM - 4:30 PM	6	0	4	0	0	0	0	0	0	88	7	1	9	33	0	1
4:30 PM - 4:45 PM	4	0	15	0	0	0	0	0	0	104	7	1	10	12	0	0
4:45 PM - 5:00 PM	4	0	11	0	0	0	0	0	0	153	10	0	12	21	0	0
5:00 PM - 5:15 PM	2	0	15	0	0	0	0	0	0	147	10	0	10	20	0	0
5:15 PM - 5:30 PM	1	0	15	0	0	0	0	0	0	139	6	0	8	14	0	0
5:30 PM - 5:45 PM	3	0	17	0	0	0	0	0	0	81	7	1	12	17	0	0
5:45 PM - 6:00 PM	4	0	2	0	0	0	0	0	0	54	4	0	11	19	0	0
TOTAL	**26**	**0**	**97**	**0**	**0**	**0**	**0**	**0**	**0**	**825**	**54**	**3**	**83**	**169**	**0**	**1**

	Northbound				Southbound				Eastbound				Westbound			
PEAK HOUR	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 8:00 AM	8	0	9	0	0	0	0	0	0	68	12	5	13	174	0	6
4:30 PM - 5:30 PM	11	0	56	0	0	0	0	0	0	543	33	1	40	67	0	0

	PHF	Trucks
AM	0.845	3.9%
PM	0.889	0.1%



Metro Traffic Data Inc.
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www.metrotrafficdata.com

Report Prepared For:

County of San Luis Obispo
1087 Santa Rosa Street
San Luis Obispo, CA 93408

(805) 781-5200

7 Day Volume Count Report

Location No. 128
Road Name Avila Beach Drive
Nearest Cross St West of San Luis Bay Drive
Survey Date 5/11/14 thru 5/17/14
Latitude 35.188323
Longitude -120.72161
Peak Day Friday
Number of Lanes 2
Comments

Sunday, May 11, 2014

Hour	Eastbound 1st	2nd	3rd	4th	Total	Westbound 1st	2nd	3rd	4th	Total	Hourly Totals
12:00 AM	13	23	12	12	**60**	10	7	5	7	**29**	**89**
1:00 AM	16	5	4	6	**31**	3	3	7	10	**23**	**54**
2:00 AM	9	3	5	3	**20**	1	3	0	1	**5**	**25**
3:00 AM	7	0	2	2	**11**	1	0	1	1	**3**	**14**
4:00 AM	1	0	0	0	**1**	1	7	5	8	**21**	**22**
5:00 AM	2	2	5	5	**14**	6	8	24	29	**67**	**81**
6:00 AM	3	6	9	22	**40**	15	25	19	29	**88**	**128**
7:00 AM	37	25	20	21	**103**	16	24	43	66	**149**	**252**
8:00 AM	27	24	36	49	**136**	58	75	85	88	**306**	**442**
9:00 AM	40	52	54	72	**218**	75	96	116	117	**404**	**622**
10:00 AM	73	83	100	109	**365**	137	119	133	139	**528**	**893**
11:00 AM	102	106	87	97	**392**	173	184	171	163	**691**	**1083**
12:00 PM	122	136	118	142	**518**	188	167	196	201	**752**	**1270**
1:00 PM	135	181	146	152	**614**	228	193	217	193	**831**	**1445**
2:00 PM	152	171	165	214	**702**	184	172	170	150	**676**	**1378**
3:00 PM	228	207	211	166	**812**	121	140	131	121	**513**	**1325**
4:00 PM	190	165	160	180	**695**	104	117	90	89	**400**	**1095**
5:00 PM	188	147	142	134	**611**	79	92	84	75	**330**	**941**
6:00 PM	123	126	109	123	**481**	81	69	60	53	**263**	**744**
7:00 PM	118	82	93	88	**381**	42	45	33	34	**154**	**535**
8:00 PM	84	60	81	35	**260**	22	18	20	25	**85**	**345**
9:00 PM	27	47	13	19	**106**	16	17	22	30	**85**	**191**
10:00 PM	35	18	7	18	**78**	10	11	6	8	**35**	**113**
11:00 PM	34	12	7	2	**55**	3	6	6	4	**19**	**74**
Total					**6704**					**6457**	
					13161						

AM Peak Hr 11:00 am to 12:00 pm **AM Peak** 1083 **AM PHF** 0.934
PM Peak Hr 1:00 pm to 2:00 pm **PM Peak** 1445 **PM PHF** 0.966

Monday, May 12, 2014

Hour	Eastbound 1st	2nd	3rd	4th	Total	Westbound 1st	2nd	3rd	4th	Total	Hourly Totals
12:00 AM	7	6	3	4	**20**	4	1	3	2	**10**	**30**
1:00 AM	1	1	3	3	**8**	4	2	2	4	**12**	**20**
2:00 AM	5	3	3	6	**17**	4	2	3	1	**10**	**27**
3:00 AM	2	0	3	1	**6**	2	4	4	9	**19**	**25**
4:00 AM	1	4	1	0	**6**	8	13	16	35	**72**	**78**
5:00 AM	4	4	5	8	**21**	68	120	125	186	**499**	**520**
6:00 AM	12	12	15	15	**54**	140	86	84	66	**376**	**430**
7:00 AM	49	30	24	36	**139**	51	66	44	54	**215**	**354**
8:00 AM	28	36	21	34	**119**	38	50	42	56	**186**	**305**
9:00 AM	35	37	53	40	**165**	53	82	77	81	**293**	**458**
10:00 AM	52	49	53	60	**214**	60	60	84	98	**302**	**516**
11:00 AM	84	73	65	74	**296**	74	76	87	112	**349**	**645**
12:00 PM	60	77	60	68	**265**	93	109	81	80	**363**	**628**
1:00 PM	84	96	78	97	**355**	85	103	101	96	**385**	**740**
2:00 PM	107	95	107	129	**438**	99	102	84	79	**364**	**802**
3:00 PM	141	122	127	120	**510**	73	79	77	82	**311**	**821**
4:00 PM	122	125	200	190	**637**	78	81	79	78	**316**	**953**
5:00 PM	211	174	153	100	**638**	84	79	61	57	**281**	**919**
6:00 PM	103	70	77	72	**322**	62	60	61	51	**234**	**556**
7:00 PM	91	72	57	66	**286**	56	32	48	33	**169**	**455**
8:00 PM	69	63	53	26	**211**	22	12	19	17	**70**	**281**
9:00 PM	28	34	27	23	**112**	16	19	16	33	**84**	**196**
10:00 PM	32	14	17	17	**80**	18	11	11	9	**49**	**129**
11:00 PM	30	8	10	7	**55**	3	8	3	0	**14**	**69**
Total					**4974**					**4983**	
					9957						

AM Peak Hr 11:00 am to 12:00 pm **AM Peak** 645 **AM PHF** 0.867
PM Peak Hr 4:30 pm to 5:30 pm **PM Peak** 1095 **PM PHF** 0.928

Tuesday, May 13, 2014

Hour	Eastbound 1st	2nd	3rd	4th	Total	Westbound 1st	2nd	3rd	4th	Total	Hourly Totals
12:00 AM	6	5	4	3	**18**	2	0	2	6	**10**	**28**
1:00 AM	3	6	2	2	**13**	1	3	3	4	**11**	**24**
2:00 AM	1	8	0	4	**13**	1	3	1	2	**7**	**20**
3:00 AM	6	0	1	0	**7**	0	3	6	5	**14**	**21**
4:00 AM	2	1	3	2	**8**	12	15	22	31	**80**	**88**
5:00 AM	1	2	6	6	**15**	80	120	162	191	**553**	**568**
6:00 AM	9	14	20	23	**66**	138	115	89	66	**408**	**474**
7:00 AM	31	41	32	26	**130**	61	60	50	74	**245**	**375**
8:00 AM	42	32	36	43	**153**	65	71	91	83	**310**	**463**
9:00 AM	41	42	36	50	**169**	65	84	61	78	**288**	**457**
10:00 AM	54	57	64	95	**270**	77	70	97	103	**347**	**617**
11:00 AM	68	75	64	82	**289**	95	93	96	117	**401**	**690**
12:00 PM	73	99	93	83	**348**	114	100	102	118	**434**	**782**
1:00 PM	84	101	96	105	**386**	125	107	125	93	**450**	**836**
2:00 PM	118	121	124	144	**507**	91	80	97	88	**356**	**863**
3:00 PM	132	137	135	123	**527**	111	103	104	111	**429**	**956**
4:00 PM	108	171	198	220	**697**	93	97	98	97	**385**	**1082**
5:00 PM	268	234	158	135	**795**	77	87	106	83	**353**	**1148**
6:00 PM	110	129	95	103	**437**	96	71	65	69	**301**	**738**
7:00 PM	115	108	76	93	**392**	51	53	48	38	**190**	**582**
8:00 PM	97	60	71	59	**287**	33	32	33	31	**129**	**416**
9:00 PM	53	35	30	31	**149**	26	26	26	16	**94**	**243**
10:00 PM	23	21	24	25	**93**	12	9	7	9	**37**	**130**
11:00 PM	18	10	10	16	**54**	2	7	4	2	**15**	**69**
Total					**5823**					**5847**	
					11670						

AM Peak Hr 11:00 am to 12:00 pm **AM Peak** 690 **AM PHF** 0.867
PM Peak Hr 4:30 pm to 5:30 pm **PM Peak** 1279 **PM PHF** 0.927

Wednesday, May 14, 2014

Hour	Eastbound 1st	2nd	3rd	4th	Total	Westbound 1st	2nd	3rd	4th	Total	Hourly Totals
12:00 AM	11	4	7	7	**29**	6	5	0	4	**15**	**44**
1:00 AM	8	6	4	1	**19**	3	0	5	6	**14**	**33**
2:00 AM	6	4	1	3	**14**	2	2	1	1	**6**	**20**
3:00 AM	6	1	2	0	**9**	5	1	6	7	**19**	**28**
4:00 AM	2	1	6	1	**10**	10	11	16	41	**78**	**88**
5:00 AM	5	4	7	7	**23**	86	133	143	206	**568**	**591**
6:00 AM	13	14	28	17	**72**	151	118	102	77	**448**	**520**
7:00 AM	30	46	37	30	**143**	71	89	64	71	**295**	**438**
8:00 AM	35	32	34	43	**144**	55	55	76	95	**281**	**425**
9:00 AM	39	41	52	61	**193**	71	85	72	86	**314**	**507**
10:00 AM	43	59	55	76	**233**	100	78	71	104	**353**	**586**
11:00 AM	84	70	74	75	**303**	89	101	103	124	**417**	**720**
12:00 PM	72	86	107	87	**352**	126	96	104	113	**439**	**791**
1:00 PM	104	104	109	117	**434**	123	142	132	115	**512**	**946**
2:00 PM	136	108	124	140	**508**	126	88	115	109	**438**	**946**
3:00 PM	149	147	152	161	**609**	105	107	112	112	**436**	**1045**
4:00 PM	148	171	223	254	**796**	121	112	124	96	**453**	**1249**
5:00 PM	239	228	184	183	**834**	118	120	94	99	**431**	**1265**
6:00 PM	128	134	146	130	**538**	95	105	99	105	**404**	**942**
7:00 PM	128	131	104	128	**491**	82	57	67	43	**249**	**740**
8:00 PM	98	97	86	96	**377**	42	30	38	39	**149**	**526**
9:00 PM	77	56	31	54	**218**	33	32	34	25	**124**	**342**
10:00 PM	51	35	25	22	**133**	25	17	25	26	**93**	**226**
11:00 PM	39	19	13	21	**92**	6	14	9	2	**31**	**123**
Total					**6574**					**6567**	
					13141						

AM Peak Hr 11:00 am to 12:00 pm **AM Peak** 720 **AM PHF** 0.905
PM Peak Hr 4:30 pm to 5:30 pm **PM Peak** 1402 **PM PHF** 0.982

Thursday, May 15, 2014

Hour	Eastbound 1st	2nd	3rd	4th	Total	Westbound 1st	2nd	3rd	4th	Total	Hourly Totals
12:00 AM	15	14	10	5	**44**	6	8	4	1	**19**	**63**
1:00 AM	13	4	7	6	**30**	2	2	3	7	**14**	**44**
2:00 AM	9	3	4	4	**20**	4	2	4	3	**13**	**33**
3:00 AM	9	5	2	1	**17**	1	2	5	12	**20**	**37**
4:00 AM	1	2	4	4	**11**	11	15	29	34	**89**	**100**
5:00 AM	4	6	9	10	**29**	84	123	136	181	**524**	**553**
6:00 AM	6	7	15	11	**39**	146	108	90	77	**421**	**460**
7:00 AM	47	45	40	41	**173**	71	62	75	55	**263**	**436**
8:00 AM	24	42	43	50	**159**	58	58	68	93	**277**	**436**
9:00 AM	33	59	43	54	**189**	71	110	93	83	**357**	**546**
10:00 AM	56	73	66	78	**273**	79	92	99	102	**372**	**645**
11:00 AM	78	87	77	81	**323**	117	96	120	112	**445**	**768**
12:00 PM	85	97	94	97	**373**	123	116	110	143	**492**	**865**
1:00 PM	121	121	111	118	**471**	133	143	131	127	**534**	**1005**
2:00 PM	125	128	121	168	**542**	122	107	126	117	**472**	**1014**
3:00 PM	153	142	165	162	**622**	111	124	117	114	**466**	**1088**
4:00 PM	163	183	205	246	**797**	110	116	133	134	**493**	**1290**
5:00 PM	247	222	173	183	**825**	128	121	99	146	**494**	**1319**
6:00 PM	195	152	147	136	**630**	113	85	85	73	**356**	**986**
7:00 PM	137	139	110	134	**520**	75	78	73	48	**274**	**794**
8:00 PM	106	99	77	52	**334**	35	42	39	35	**151**	**485**
9:00 PM	63	38	39	29	**169**	28	28	35	34	**125**	**294**
10:00 PM	48	30	29	35	**142**	25	25	19	14	**83**	**225**
11:00 PM	39	13	10	12	**74**	14	6	11	9	**40**	**114**
Total					**6806**					**6794**	
					13600						

AM Peak Hr 11:00 am to 12:00 pm **AM Peak** 768 **AM PHF** 0.975
PM Peak Hr 4:30 pm to 5:30 pm **PM Peak** 1436 **PM PHF** 0.945

Friday, May 16, 2014

Hour	Eastbound 1st	2nd	3rd	4th	Total	Westbound 1st	2nd	3rd	4th	Total	Hourly Totals
12:00 AM	24	15	7	6	**52**	7	4	4	4	**19**	**71**
1:00 AM	12	5	5	5	**27**	4	4	4	5	**17**	**44**
2:00 AM	7	8	5	1	**21**	5	1	0	2	**8**	**29**
3:00 AM	5	0	3	1	**9**	2	1	5	6	**14**	**23**
4:00 AM	1	1	5	5	**12**	5	9	6	18	**38**	**50**
5:00 AM	4	9	5	6	**24**	25	43	46	83	**197**	**221**
6:00 AM	7	10	17	21	**55**	69	76	52	71	**268**	**323**
7:00 AM	44	45	44	32	**165**	42	76	70	55	**243**	**408**
8:00 AM	32	43	40	45	**160**	57	73	60	75	**265**	**425**
9:00 AM	46	49	65	59	**219**	82	84	94	85	**345**	**564**
10:00 AM	53	68	85	92	**298**	79	88	86	80	**333**	**631**
11:00 AM	73	73	78	94	**318**	93	100	120	112	**425**	**743**
12:00 PM	75	84	87	103	**349**	97	118	128	117	**460**	**809**
1:00 PM	102	105	97	105	**409**	139	136	141	143	**559**	**968**
2:00 PM	119	106	148	144	**517**	130	126	124	147	**527**	**1044**
3:00 PM	158	155	137	142	**592**	157	163	148	160	**628**	**1220**
4:00 PM	155	142	139	163	**599**	147	181	198	195	**721**	**1320**
5:00 PM	178	176	144	164	**662**	174	206	181	203	**764**	**1426**
6:00 PM	143	139	163	160	**605**	180	195	132	146	**653**	**1258**
7:00 PM	157	199	180	171	**707**	112	84	93	77	**366**	**1073**
8:00 PM	206	206	188	135	**735**	49	43	41	35	**168**	**903**
9:00 PM	114	99	79	49	**341**	43	33	45	37	**158**	**499**
10:00 PM	63	59	65	49	**236**	35	24	20	19	**98**	**334**
11:00 PM	56	32	34	25	**147**	7	12	9	7	**35**	**182**
Total					**7259**					**7309**	
					14568						

AM Peak Hr 11:00 am to 12:00 pm **AM Peak** 743 **AM PHF** 0.902
PM Peak Hr 4:30 pm to 5:30 pm **PM Peak** 1429 **PM PHF** 0.935

Saturday, May 17, 2014

Hour	Eastbound 1st	2nd	3rd	4th	Total	Westbound 1st	2nd	3rd	4th	Total	Hourly Totals
12:00 AM	23	24	22	11	**80**	7	8	7	2	**24**	**104**
1:00 AM	5	2	5	4	**16**	1	6	3	9	**19**	**35**
2:00 AM	4	2	5	7	**18**	4	2	1	1	**8**	**26**
3:00 AM	5	5	0	3	**13**	1	5	1	4	**11**	**24**
4:00 AM	2	1	3	2	**8**	2	7	5	17	**31**	**39**
5:00 AM	3	2	3	5	**13**	10	18	23	40	**91**	**104**
6:00 AM	5	9	9	11	**34**	31	27	29	37	**124**	**158**
7:00 AM	33	27	25	33	**118**	29	39	58	76	**202**	**320**
8:00 AM	28	37	38	31	**134**	53	82	71	85	**291**	**425**
9:00 AM	35	56	50	56	**197**	67	68	86	99	**320**	**517**
10:00 AM	65	64	94	66	**289**	100	113	142	170	**525**	**814**
11:00 AM	94	85	85	90	**354**	136	147	157	159	**599**	**953**
12:00 PM	100	116	102	125	**443**	183	214	188	197	**782**	**1225**
1:00 PM	128	117	152	137	**534**	165	200	177	190	**732**	**1266**
2:00 PM	147	191	174	175	**687**	171	161	155	165	**652**	**1339**
3:00 PM	191	192	166	173	**722**	162	146	126	129	**563**	**1285**
4:00 PM	174	191	157	199	**721**	131	100	120	82	**433**	**1154**
5:00 PM	187	124	173	164	**648**	107	99	86	91	**383**	**1031**
6:00 PM	132	156	121	105	**514**	98	77	88	54	**317**	**831**
7:00 PM	119	88	65	89	**361**	73	63	64	56	**256**	**617**
8:00 PM	90	88	75	67	**320**	50	38	50	37	**175**	**495**
9:00 PM	56	61	36	55	**208**	30	29	43	50	**152**	**360**
10:00 PM	84	48	48	55	**235**	43	35	21	19	**118**	**353**
11:00 PM	58	43	20	16	**137**	18	17	13	16	**64**	**201**
Total					**6804**					**6872**	
					13676						

AM Peak Hr 11:00 am to 12:00 pm **AM Peak** 953 **AM PHF** 0.957
PM Peak Hr 2:15 pm to 3:15 pm **PM Peak** 1374 **PM PHF** 0.973



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

7 Day Volume Count Report

Location No. 151

Road Name Avila Beach Dr

Nearest Cross St West of Babe Lane

Survey Date 5/11/14 thru 5/17/14

Latitude 35.518518

Longitude -120.522463

Peak Day Wednesday

Number of Lanes 2

Comments

Sunday, May 11, 2014

	Eastbound					Westbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	1	7	1	5	**14**	1	0	1	2	**4**	**18**
1:00 AM	0	0	2	1	**3**	0	0	5	7	**12**	**15**
2:00 AM	2	0	1	4	**7**	1	1	0	1	**3**	**10**
3:00 AM	3	0	2	0	**5**	0	0	0	1	**1**	**6**
4:00 AM	0	0	0	0	**0**	2	4	5	5	**16**	**16**
5:00 AM	1	1	3	1	**6**	6	8	17	27	**58**	**64**
6:00 AM	0	5	9	12	**26**	15	10	12	12	**49**	**75**
7:00 AM	24	23	7	8	**62**	8	11	7	17	**43**	**105**
8:00 AM	13	7	12	12	**44**	14	16	25	30	**85**	**129**
9:00 AM	11	24	19	29	**83**	24	31	30	43	**128**	**211**
10:00 AM	38	42	41	39	**160**	44	54	46	45	**189**	**349**
11:00 AM	36	48	40	50	**174**	40	68	68	52	**228**	**402**
12:00 PM	63	61	57	63	**244**	54	53	72	62	**241**	**485**
1:00 PM	82	62	68	62	**274**	77	84	77	81	**319**	**593**
2:00 PM	69	89	68	109	**335**	81	66	63	57	**267**	**602**
3:00 PM	85	54	82	69	**290**	55	49	61	51	**216**	**506**
4:00 PM	53	51	36	58	**198**	35	37	37	37	**146**	**344**
5:00 PM	36	40	41	40	**157**	32	27	36	36	**131**	**288**
6:00 PM	36	39	41	29	**145**	32	22	27	21	**102**	**247**
7:00 PM	38	26	15	27	**106**	15	20	9	11	**55**	**161**
8:00 PM	16	11	17	5	**49**	7	4	8	7	**26**	**75**
9:00 PM	12	6	1	4	**23**	4	3	11	20	**38**	**61**
10:00 PM	12	7	0	18	**37**	6	2	1	1	**10**	**47**
11:00 PM	20	1	0	0	**21**	0	1	1	2	**4**	**25**
Total					**2463**					**2371**	
					4834						

AM Peak Hr 11:00 am to 12:00 pm **AM Peak** 402 **AM PHF** 0.866
PM Peak Hr 2:00 pm to 3:00 pm **PM Peak** 602 **PM PHF** 0.907

Monday, May 12, 2014

	Eastbound					Westbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	3	1	1	0	**5**	0	1	0	0	**1**	**6**
1:00 AM	1	0	1	0	**2**	0	2	2	2	**6**	**8**
2:00 AM	3	0	1	4	**8**	3	2	1	1	**7**	**15**
3:00 AM	2	1	3	0	**6**	3	3	3	11	**20**	**26**
4:00 AM	0	3	1	1	**5**	7	12	17	26	**62**	**67**
5:00 AM	1	0	2	5	**8**	66	94	127	166	**453**	**461**
6:00 AM	4	9	8	9	**30**	152	89	78	56	**375**	**405**
7:00 AM	37	10	7	12	**66**	32	46	27	17	**122**	**188**
8:00 AM	8	10	9	4	**31**	8	17	17	15	**57**	**88**
9:00 AM	12	7	16	24	**59**	19	13	31	35	**98**	**157**
10:00 AM	25	23	15	42	**105**	26	23	17	26	**92**	**197**
11:00 AM	30	36	25	24	**115**	24	32	26	23	**105**	**220**
12:00 PM	35	23	29	26	**113**	24	31	32	25	**112**	**225**
1:00 PM	38	38	33	28	**137**	25	41	38	26	**130**	**267**
2:00 PM	40	42	44	76	**202**	32	33	30	23	**118**	**320**
3:00 PM	54	33	63	44	**194**	19	27	24	21	**91**	**285**
4:00 PM	57	69	137	111	**374**	18	20	23	30	**91**	**465**
5:00 PM	172	106	78	53	**409**	18	27	15	14	**74**	**483**
6:00 PM	43	37	25	27	**132**	23	22	15	16	**76**	**208**
7:00 PM	30	28	19	18	**95**	8	14	7	8	**37**	**132**
8:00 PM	10	9	7	4	**30**	8	4	6	3	**21**	**51**
9:00 PM	8	9	3	9	**29**	4	5	8	16	**33**	**62**
10:00 PM	4	2	7	14	**27**	9	1	2	4	**16**	**43**
11:00 PM	20	7	3	6	**36**	0	3	3	0	**6**	**42**
Total					**2218**					**2203**	
					4421						

AM Peak Hr 5:30 am to 6:30 am **AM Peak** 554 **AM PHF** 0.810
PM Peak Hr 4:30 pm to 5:30 pm **PM Peak** 624 **PM PHF** 0.821

Tuesday, May 13, 2014

	Eastbound					Westbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	4	4	0	3	**11**	0	1	1	2	**4**	**15**
1:00 AM	5	3	1	1	**10**	2	3	3	2	**10**	**20**
2:00 AM	2	5	0	7	**14**	3	0	0	2	**5**	**19**
3:00 AM	2	1	0	0	**3**	1	0	6	8	**15**	**18**
4:00 AM	2	0	0	1	**3**	9	15	23	30	**77**	**80**
5:00 AM	0	1	3	2	**6**	70	92	163	179	**504**	**510**
6:00 AM	3	15	8	9	**35**	146	126	95	43	**410**	**445**
7:00 AM	21	16	11	8	**56**	39	39	29	21	**128**	**184**
8:00 AM	11	6	9	15	**41**	23	23	17	29	**92**	**133**
9:00 AM	19	13	14	21	**67**	24	17	27	24	**92**	**159**
10:00 AM	15	18	22	39	**94**	29	31	27	28	**115**	**209**
11:00 AM	33	35	30	29	**127**	25	37	33	34	**129**	**256**
12:00 PM	34	36	34	28	**132**	23	32	37	31	**123**	**255**
1:00 PM	39	38	36	39	**152**	32	42	35	46	**155**	**307**
2:00 PM	46	41	47	63	**197**	22	30	27	20	**99**	**296**
3:00 PM	59	53	39	54	**205**	40	18	27	22	**107**	**312**
4:00 PM	66	86	157	124	**433**	24	31	25	22	**102**	**535**
5:00 PM	180	114	90	67	**451**	24	19	25	20	**88**	**539**
6:00 PM	56	61	37	38	**192**	30	24	23	16	**93**	**285**
7:00 PM	41	28	11	43	**123**	13	10	19	11	**53**	**176**
8:00 PM	19	15	15	18	**67**	6	10	13	8	**37**	**104**
9:00 PM	10	8	10	6	**34**	4	7	7	11	**29**	**63**
10:00 PM	6	9	6	7	**28**	9	1	3	2	**15**	**43**
11:00 PM	18	3	2	9	**32**	1	1	3	1	**6**	**38**
Total					**2513**					**2488**	
					5001						

AM Peak Hr 5:30 am to 6:30 am **AM Peak** 637 **AM PHF** 0.880
PM Peak Hr 4:30 pm to 5:30 pm **PM Peak** 665 **PM PHF** 0.815

Wednesday, May 14, 2014

	Eastbound					Westbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	8	2	1	1	**12**	1	1	0	1	**3**	**15**
1:00 AM	3	7	1	0	**11**	2	3	2	6	**13**	**24**
2:00 AM	6	1	1	2	**10**	4	0	1	3	**8**	**18**
3:00 AM	6	1	1	0	**8**	2	0	5	8	**15**	**23**
4:00 AM	1	0	2	0	**3**	7	8	18	26	**59**	**62**
5:00 AM	0	1	0	2	**3**	78	122	145	181	**526**	**529**
6:00 AM	6	12	14	6	**38**	164	126	103	48	**441**	**479**
7:00 AM	14	24	16	16	**70**	44	44	48	26	**162**	**232**
8:00 AM	13	12	10	10	**45**	23	20	23	30	**96**	**141**
9:00 AM	17	13	22	22	**74**	33	31	30	32	**126**	**200**
10:00 AM	23	26	39	33	**121**	26	26	33	31	**116**	**237**
11:00 AM	41	34	48	40	**163**	38	28	39	31	**136**	**299**
12:00 PM	36	33	41	31	**141**	32	38	27	32	**129**	**270**
1:00 PM	53	33	35	45	**166**	43	32	41	34	**150**	**316**
2:00 PM	50	54	60	46	**210**	49	32	24	25	**130**	**340**
3:00 PM	63	54	62	62	**241**	28	40	36	25	**129**	**370**
4:00 PM	74	87	155	155	**471**	31	26	29	37	**123**	**594**
5:00 PM	164	141	88	76	**469**	21	29	31	31	**112**	**581**
6:00 PM	51	50	43	56	**200**	22	38	33	25	**118**	**318**
7:00 PM	39	45	25	25	**134**	23	18	20	8	**69**	**203**
8:00 PM	12	27	28	16	**83**	16	8	6	7	**37**	**120**
9:00 PM	21	8	5	9	**43**	11	10	12	11	**44**	**87**
10:00 PM	15	15	5	9	**44**	14	4	3	8	**29**	**73**
11:00 PM	19	7	4	5	**35**	3	7	1	0	**11**	**46**
Total					**2795**					**2782**	
					5577						

AM Peak Hr 5:30 am to 6:30 am **AM Peak** 636 **AM PHF** 0.869
PM Peak Hr 4:30 pm to 5:30 pm **PM Peak** 731 **PM PHF** 0.952

Thursday, May 15, 2014

	Eastbound					Westbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	12	1	4	3	**20**	0	3	1	0	**4**	**24**
1:00 AM	6	3	3	2	**14**	0	1	2	6	**9**	**23**
2:00 AM	8	1	1	5	**15**	5	0	3	3	**11**	**26**
3:00 AM	6	6	1	1	**14**	0	2	4	9	**15**	**29**
4:00 AM	1	0	1	1	**3**	13	10	29	31	**83**	**86**
5:00 AM	2	0	3	6	**11**	70	116	124	159	**469**	**480**
6:00 AM	1	6	6	11	**24**	172	105	76	49	**402**	**426**
7:00 AM	22	20	17	14	**73**	46	39	39	28	**152**	**225**
8:00 AM	11	15	7	12	**45**	22	14	31	35	**102**	**147**
9:00 AM	26	21	19	18	**84**	32	33	38	34	**137**	**221**
10:00 AM	30	27	27	30	**114**	22	27	30	29	**108**	**222**
11:00 AM	39	38	38	34	**149**	37	31	49	32	**149**	**298**
12:00 PM	56	23	40	35	**154**	30	32	28	45	**135**	**289**
1:00 PM	40	68	51	45	**204**	40	47	31	37	**155**	**359**
2:00 PM	40	48	45	83	**216**	34	32	35	22	**123**	**339**
3:00 PM	66	53	60	67	**246**	38	30	35	32	**135**	**381**
4:00 PM	75	86	140	126	**427**	29	24	44	20	**117**	**544**
5:00 PM	156	101	80	84	**421**	36	19	20	32	**107**	**528**
6:00 PM	60	51	51	44	**206**	28	31	23	26	**108**	**314**
7:00 PM	38	34	23	28	**123**	18	31	18	15	**82**	**205**
8:00 PM	22	15	9	19	**65**	6	11	9	7	**33**	**98**
9:00 PM	20	4	6	4	**34**	6	12	12	16	**46**	**80**
10:00 PM	14	6	8	19	**47**	8	6	3	2	**19**	**66**
11:00 PM	19	2	3	5	**29**	1	2	1	3	**7**	**36**
Total					**2738**					**2708**	
					5446						

AM Peak Hr 5:15 am to 6:15 am **AM Peak** 581 **AM PHF** 0.840
PM Peak Hr 4:30 pm to 5:30 pm **PM Peak** 642 **PM PHF** 0.836

Friday, May 16, 2014

	Eastbound					Westbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	12	4	3	1	**20**	2	1	1	2	**6**	**26**
1:00 AM	3	1	1	2	**7**	2	2	2	1	**7**	**14**
2:00 AM	7	1	1	1	**10**	4	0	0	2	**6**	**16**
3:00 AM	3	0	0	0	**3**	0	1	1	3	**5**	**8**
4:00 AM	1	1	0	2	**4**	8	5	4	18	**35**	**39**
5:00 AM	1	2	4	2	**9**	19	36	40	68	**163**	**172**
6:00 AM	2	6	11	13	**32**	73	60	46	29	**208**	**240**
7:00 AM	32	19	14	4	**69**	34	40	32	20	**126**	**195**
8:00 AM	12	9	14	12	**47**	15	19	23	23	**80**	**127**
9:00 AM	12	18	33	39	**102**	27	40	23	32	**122**	**224**
10:00 AM	32	33	25	33	**123**	34	25	25	32	**116**	**239**
11:00 AM	36	34	42	34	**146**	27	25	33	34	**119**	**265**
12:00 PM	38	33	43	45	**159**	29	25	25	42	**121**	**280**
1:00 PM	50	48	40	43	**181**	31	33	37	39	**140**	**321**
2:00 PM	41	41	50	48	**180**	33	30	22	25	**110**	**290**
3:00 PM	72	62	55	35	**224**	35	25	31	24	**115**	**339**
4:00 PM	36	38	46	57	**177**	29	29	28	30	**116**	**293**
5:00 PM	55	39	45	26	**165**	23	22	34	20	**99**	**264**
6:00 PM	30	28	32	38	**128**	30	31	46	29	**136**	**264**
7:00 PM	28	32	20	18	**98**	26	23	22	20	**91**	**189**
8:00 PM	25	33	22	22	**102**	18	18	26	10	**72**	**174**
9:00 PM	19	13	13	9	**54**	17	16	11	19	**63**	**117**
10:00 PM	22	17	15	21	**75**	12	10	7	4	**33**	**108**
11:00 PM	14	7	6	5	**32**	3	4	2	2	**11**	**43**
Total					**2147**					**2100**	
					4247						

AM Peak Hr 11:00 am to 12:00 pm **AM Peak** 265 **AM PHF** 0.883
PM Peak Hr 2:45 pm to 3:45 pm **PM Peak** 353 **PM PHF** 0.825

Saturday, May 17, 2014

	Eastbound					Westbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	6	1	2	0	**9**	0	0	1	1	**2**	**11**
1:00 AM	2	0	0	2	**4**	2	1	5	4	**12**	**16**
2:00 AM	1	1	3	4	**9**	4	2	0	1	**7**	**16**
3:00 AM	4	2	0	0	**6**	1	2	1	2	**6**	**12**
4:00 AM	1	0	0	1	**2**	1	3	6	13	**23**	**25**
5:00 AM	1	2	3	2	**8**	12	18	18	39	**87**	**95**
6:00 AM	2	6	7	12	**27**	31	22	11	20	**84**	**111**
7:00 AM	34	28	11	10	**83**	9	16	8	28	**61**	**144**
8:00 AM	15	12	12	16	**55**	9	25	18	30	**82**	**137**
9:00 AM	13	18	15	20	**66**	18	21	24	26	**89**	**155**
10:00 AM	27	29	29	42	**127**	27	30	34	36	**127**	**254**
11:00 AM	34	41	36	43	**154**	38	45	37	39	**159**	**313**
12:00 PM	43	40	45	49	**177**	53	45	49	36	**183**	**360**
1:00 PM	50	62	55	52	**219**	42	69	51	77	**239**	**458**
2:00 PM	64	61	63	77	**265**	64	51	43	61	**219**	**484**
3:00 PM	61	67	52	57	**237**	53	50	52	49	**204**	**441**
4:00 PM	45	43	36	44	**168**	31	31	40	36	**138**	**306**
5:00 PM	32	37	56	51	**176**	39	37	42	42	**160**	**336**
6:00 PM	30	35	31	30	**126**	26	35	24	20	**105**	**231**
7:00 PM	41	18	28	25	**112**	18	20	18	20	**76**	**188**
8:00 PM	19	27	22	15	**83**	14	12	18	9	**53**	**136**
9:00 PM	10	15	8	13	**46**	7	8	16	17	**48**	**94**
10:00 PM	15	6	13	19	**53**	12	8	3	7	**30**	**83**
11:00 PM	12	7	7	5	**31**	3	1	3	2	**9**	**40**
Total					**2243**					**2203**	
					4446						

AM Peak Hr 11:00 am to 12:00 pm **AM Peak** 313 **AM PHF** 0.910
PM Peak Hr 1:15 pm to 2:15 pm **PM Peak** 494 **PM PHF** 0.943

Appendix B: LOS/Queue Calculation Sheets

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	10	615	116	10	10	10
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	647	122	11	11	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	133	0	-	0	795	127
Stage 1	-	-	-	-	127	-
Stage 2	-	-	-	-	668	-
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	1452	-	-	-	357	923
Stage 1	-	-	-	-	899	-
Stage 2	-	-	-	-	510	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1452	-	-	-	353	923
Mov Cap-2 Maneuver	-	-	-	-	353	-
Stage 1	-	-	-	-	899	-
Stage 2	-	-	-	-	504	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	12.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1452	-	-	-	511
HCM Lane V/C Ratio	0.007	-	-	-	0.041
HCM Control Delay (s)	7.5	0	-	-	12.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1



Lane Group	EBT	EBR	WBL	WBT	NBT	NBR
Lane Group Flow (vph)	610	37	45	75	12	63
v/c Ratio	0.46	0.03	0.08	0.05	0.04	0.22
Control Delay	8.7	6.3	3.3	3.0	18.8	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.7	6.3	3.3	3.0	18.8	20.6
Queue Length 50th (ft)	113	5	3	5	3	17
Queue Length 95th (ft)	220	16	12	17	15	47
Internal Link Dist (ft)	573			373	447	
Turn Bay Length (ft)		50	150			50
Base Capacity (vph)	1759	1449	549	1848	687	653
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.03	0.08	0.04	0.02	0.10

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	543	33	40	67	0	11	0	56	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0			
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00			
Frpb, ped/bikes		1.00	0.98	1.00	1.00			1.00	0.97			
Flpb, ped/bikes		1.00	1.00	1.00	1.00			1.00	1.00			
Frt		1.00	0.85	1.00	1.00			1.00	0.85			
Flt Protected		1.00	1.00	0.95	1.00			0.95	1.00			
Satd. Flow (prot)		1863	1544	1769	1863			1770	1534			
Flt Permitted		1.00	1.00	0.31	1.00			0.87	1.00			
Satd. Flow (perm)		1863	1544	573	1863			1620	1534			
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	610	37	45	75	0	12	0	63	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	610	37	45	75	0	0	12	63	0	0	0
Confl. Peds. (#/hr)			3	2								
Confl. Bikes (#/hr)			1			2			3			
Turn Type		NA	Perm	pm+pt	NA		Perm	NA	Perm			
Protected Phases		4		3	8			2			6	
Permitted Phases	4		4	8			2		2	6		
Actuated Green, G (s)		28.8	28.8	34.8	34.8			4.6	4.6			
Effective Green, g (s)		28.8	28.8	34.8	34.8			4.6	4.6			
Actuated g/C Ratio		0.61	0.61	0.73	0.73			0.10	0.10			
Clearance Time (s)		4.0	4.0	4.0	4.0			4.0	4.0			
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0			
Lane Grp Cap (vph)		1131	938	471	1367			157	148			
v/s Ratio Prot		c0.33		c0.00	0.04							
v/s Ratio Perm			0.02	0.07				0.01	c0.04			
v/c Ratio		0.54	0.04	0.10	0.05			0.08	0.43			
Uniform Delay, d1		5.4	3.7	2.7	1.7			19.5	20.2			
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00			
Incremental Delay, d2		0.5	0.0	0.1	0.0			0.2	2.0			
Delay (s)		5.9	3.8	2.8	1.8			19.7	22.1			
Level of Service		A	A	A	A			B	C			
Approach Delay (s)		5.8			2.2			21.7			0.0	
Approach LOS		A			A			C			A	

Intersection Summary				
HCM 2000 Control Delay	6.7	HCM 2000 Level of Service	A	
HCM 2000 Volume to Capacity ratio	0.56			
Actuated Cycle Length (s)	47.4	Sum of lost time (s)	16.0	
Intersection Capacity Utilization	43.2%	ICU Level of Service	A	
Analysis Period (min)	15			
c Critical Lane Group				

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	23	608	94	83	79	37
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	640	99	87	83	39

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	186	0	-	0	831	143
Stage 1	-	-	-	-	143	-
Stage 2	-	-	-	-	688	-
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	1388	-	-	-	340	905
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	499	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1388	-	-	-	331	905
Mov Cap-2 Maneuver	-	-	-	-	331	-
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	486	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	17.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1388	-	-	-	415
HCM Lane V/C Ratio	0.017	-	-	-	0.294
HCM Control Delay (s)	7.6	0	-	-	17.3
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1.2

Lane Group	EBT	EBR	WBL	WBT	NBT	NBR
Lane Group Flow (vph)	672	45	45	127	19	63
v/c Ratio	0.55	0.04	0.10	0.09	0.08	0.24
Control Delay	9.9	6.1	3.3	3.2	21.2	23.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.9	6.1	3.3	3.2	21.2	23.0
Queue Length 50th (ft)	133	6	3	10	5	17
Queue Length 95th (ft)	249	18	11	25	22	51
Internal Link Dist (ft)	573			373	447	
Turn Bay Length (ft)		50	150			50
Base Capacity (vph)	1706	1406	467	1820	539	589
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.03	0.10	0.07	0.04	0.11

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	598	40	40	113	0	17	0	56	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0			
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00			
Frpb, ped/bikes		1.00	0.97	1.00	1.00			1.00	0.97			
Flpb, ped/bikes		1.00	1.00	1.00	1.00			1.00	1.00			
Frt		1.00	0.85	1.00	1.00			1.00	0.85			
Flt Protected		1.00	1.00	0.95	1.00			0.95	1.00			
Satd. Flow (prot)		1863	1543	1769	1863			1770	1538			
Flt Permitted		1.00	1.00	0.26	1.00			0.76	1.00			
Satd. Flow (perm)		1863	1543	492	1863			1410	1538			
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	672	45	45	127	0	19	0	63	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	672	45	45	127	0	0	19	63	0	0	0
Confl. Peds. (#/hr)			3	2								
Confl. Bikes (#/hr)			1			2			3			
Turn Type		NA	Perm	pm+pt	NA		Perm	NA	Perm			
Protected Phases		4		3	8			2			6	
Permitted Phases	4		4	8			2		2	6		
Actuated Green, G (s)		30.4	30.4	36.5	36.5			6.4	6.4			
Effective Green, g (s)		30.4	30.4	36.5	36.5			6.4	6.4			
Actuated g/C Ratio		0.60	0.60	0.72	0.72			0.13	0.13			
Clearance Time (s)		4.0	4.0	4.0	4.0			4.0	4.0			
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0			
Lane Grp Cap (vph)		1112	921	405	1335			177	193			
v/s Ratio Prot		c0.36		0.00	c0.07							
v/s Ratio Perm			0.03	0.08				0.01	c0.04			
v/c Ratio		0.60	0.05	0.11	0.10			0.11	0.33			
Uniform Delay, d1		6.5	4.3	3.6	2.2			19.7	20.3			
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00			
Incremental Delay, d2		0.9	0.0	0.1	0.0			0.3	1.0			
Delay (s)		7.4	4.3	3.8	2.2			20.0	21.3			
Level of Service		A	A	A	A			B	C			
Approach Delay (s)		7.2			2.6			21.0			0.0	
Approach LOS		A			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	7.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	50.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	43.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	10	680	130	10	10	10
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	716	137	11	11	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	147	0	-	0	879	142
Stage 1	-	-	-	-	142	-
Stage 2	-	-	-	-	737	-
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	1435	-	-	-	318	906
Stage 1	-	-	-	-	885	-
Stage 2	-	-	-	-	473	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1435	-	-	-	314	906
Mov Cap-2 Maneuver	-	-	-	-	314	-
Stage 1	-	-	-	-	885	-
Stage 2	-	-	-	-	467	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	13.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1435	-	-	-	466
HCM Lane V/C Ratio	0.007	-	-	-	0.045
HCM Control Delay (s)	7.5	0	-	-	13.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1



Lane Group	EBT	EBR	WBL	WBT	NBT	NBR
Lane Group Flow (vph)	674	45	45	90	22	67
v/c Ratio	0.55	0.04	0.10	0.06	0.09	0.25
Control Delay	10.0	6.2	3.4	3.1	21.4	23.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.0	6.2	3.4	3.1	21.4	23.2
Queue Length 50th (ft)	135	6	3	7	6	19
Queue Length 95th (ft)	252	18	11	19	24	54
Internal Link Dist (ft)	573			373	447	
Turn Bay Length (ft)		50	150			50
Base Capacity (vph)	1697	1398	464	1816	535	585
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.03	0.10	0.05	0.04	0.11

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	600	40	40	80	0	20	0	60	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0			
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00			
Frpb, ped/bikes		1.00	0.97	1.00	1.00			1.00	0.97			
Flpb, ped/bikes		1.00	1.00	1.00	1.00			1.00	1.00			
Frt		1.00	0.85	1.00	1.00			1.00	0.85			
Flt Protected		1.00	1.00	0.95	1.00			0.95	1.00			
Satd. Flow (prot)		1863	1543	1769	1863			1770	1538			
Flt Permitted		1.00	1.00	0.26	1.00			0.76	1.00			
Satd. Flow (perm)		1863	1543	489	1863			1410	1538			
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	674	45	45	90	0	22	0	67	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	674	45	45	90	0	0	22	67	0	0	0
Confl. Peds. (#/hr)			3	2								
Confl. Bikes (#/hr)			1			2			3			
Turn Type		NA	Perm	pm+pt	NA		Perm	NA	Perm			
Protected Phases		4		3	8			2			6	
Permitted Phases	4		4	8			2		2	6		
Actuated Green, G (s)		30.7	30.7	36.8	36.8			6.6	6.6			
Effective Green, g (s)		30.7	30.7	36.8	36.8			6.6	6.6			
Actuated g/C Ratio		0.60	0.60	0.72	0.72			0.13	0.13			
Clearance Time (s)		4.0	4.0	4.0	4.0			4.0	4.0			
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0			
Lane Grp Cap (vph)		1112	921	402	1333			181	197			
v/s Ratio Prot		c0.36		c0.00	0.05							
v/s Ratio Perm			0.03	0.08				0.02	c0.04			
v/c Ratio		0.61	0.05	0.11	0.07			0.12	0.34			
Uniform Delay, d1		6.5	4.3	3.7	2.2			19.8	20.4			
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00			
Incremental Delay, d2		0.9	0.0	0.1	0.0			0.3	1.0			
Delay (s)		7.5	4.3	3.8	2.2			20.1	21.4			
Level of Service		A	A	A	A			C	C			
Approach Delay (s)		7.3			2.7			21.1			0.0	
Approach LOS		A			A			C			A	

Intersection Summary				
HCM 2000 Control Delay	7.9	HCM 2000 Level of Service	A	
HCM 2000 Volume to Capacity ratio	0.60			
Actuated Cycle Length (s)	51.4	Sum of lost time (s)	16.0	
Intersection Capacity Utilization	43.2%	ICU Level of Service	A	
Analysis Period (min)	15			
c Critical Lane Group				

Intersection							
Int Delay, s/veh	2.4						

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	23	673	108	83	79	37
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	708	114	87	83	39

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	201	0	-	0	914	157
Stage 1	-	-	-	-	157	-
Stage 2	-	-	-	-	757	-
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	1371	-	-	-	303	889
Stage 1	-	-	-	-	871	-
Stage 2	-	-	-	-	463	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1371	-	-	-	294	889
Mov Cap-2 Maneuver	-	-	-	-	294	-
Stage 1	-	-	-	-	871	-
Stage 2	-	-	-	-	450	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	19.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1371	-	-	-	374
HCM Lane V/C Ratio	0.018	-	-	-	0.326
HCM Control Delay (s)	7.7	0	-	-	19.2
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1.4

Lane Group	EBT	EBR	WBL	WBT	NBT	NBR
Lane Group Flow (vph)	736	53	45	142	29	67
v/c Ratio	0.58	0.05	0.10	0.10	0.13	0.27
Control Delay	9.9	5.7	3.2	3.0	24.3	26.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.9	5.7	3.2	3.0	24.3	26.1
Queue Length 50th (ft)	157	7	3	11	8	20
Queue Length 95th (ft)	285	20	11	27	32	58
Internal Link Dist (ft)	573			373	447	
Turn Bay Length (ft)		50	150			50
Base Capacity (vph)	1617	1332	440	1767	492	538
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.04	0.10	0.08	0.06	0.12

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	655	47	40	126	0	26	0	60	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0			
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00			
Frpb, ped/bikes		1.00	0.97	1.00	1.00			1.00	0.97			
Flpb, ped/bikes		1.00	1.00	1.00	1.00			1.00	1.00			
Frt		1.00	0.85	1.00	1.00			1.00	0.85			
Flt Protected		1.00	1.00	0.95	1.00			0.95	1.00			
Satd. Flow (prot)		1863	1543	1769	1863			1770	1537			
Flt Permitted		1.00	1.00	0.24	1.00			0.76	1.00			
Satd. Flow (perm)		1863	1543	451	1863			1410	1537			
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	736	53	45	142	0	29	0	67	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	736	53	45	142	0	0	29	67	0	0	0
Confl. Peds. (#/hr)			3	2								
Confl. Bikes (#/hr)			1			2			3			
Turn Type		NA	Perm	pm+pt	NA		Perm	NA	Perm			
Protected Phases		4		3	8			2			6	
Permitted Phases	4		4	8			2		2	6		
Actuated Green, G (s)		34.7	34.7	40.8	40.8			6.7	6.7			
Effective Green, g (s)		34.7	34.7	40.8	40.8			6.7	6.7			
Actuated g/C Ratio		0.63	0.63	0.74	0.74			0.12	0.12			
Clearance Time (s)		4.0	4.0	4.0	4.0			4.0	4.0			
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0			
Lane Grp Cap (vph)		1164	964	381	1369			170	185			
v/s Ratio Prot		c0.40		0.00	c0.08							
v/s Ratio Perm			0.03	0.08				0.02	c0.04			
v/c Ratio		0.63	0.05	0.12	0.10			0.17	0.36			
Uniform Delay, d1		6.4	4.0	4.0	2.1			21.9	22.4			
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00			
Incremental Delay, d2		1.1	0.0	0.1	0.0			0.5	1.2			
Delay (s)		7.6	4.1	4.1	2.1			22.4	23.6			
Level of Service		A	A	A	A			C	C			
Approach Delay (s)		7.3			2.6			23.3			0.0	
Approach LOS		A			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	7.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	55.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	44.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			