Appendix A

Initial Study



Goleta Train Depot

Initial Study

prepared by

City of Goleta
Neighborhood Services and Public Safety Department
130 Cremona Drive, Suite B
Goleta, California 93117
Contact: Jaime A. Valdez, Principal Project Manager

prepared with the assistance of

Rincon Consultants, Inc.
209 East Victoria Street
Santa Barbara, California 93101

May 2020

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
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Initial Study

1. Project Title

Goleta Train Depot

2. Lead Agency Name and Address

City of Goleta
Neighborhood Services and Public Safety Department
130 Cremona Drive, Suite B
Goleta, California 93117

3. Contact Person and Phone Number

Jaime A. Valdez, Principal Project Manager
jvaldez@cityofgoleta.org
(805) 961-7568

4. Project Location

The proposed project is located in the City of Goleta at 27 S. La Patera Lane at the northern terminus of the cul-de-sac. Figure 1 shows the regional location of the project in Santa Barbara County. The project is located near a number of regionally important areas, land uses, and transportation facilities, which include Old Town Goleta, University of California Santa Barbara (UCSB), the Santa Barbara Airport, US Hwy 101, the Union Pacific Rail Road (UPRR), and the existing Goleta Rail Station, as shown in Figure 2. The project site is approximately 2.5 acres and is currently developed with an industrial warehouse structure, a parking lot, outdoor storage area, and vehicle yard. Figure 3 shows the specific project location and its neighborhood context.

5. General Plan Land Use and Zoning Designation

The project site's land use designation is listed as Business Park (I-BP) according to the City's General Plan/Coastal Land Use Plan (General Plan). The zoning designation of the project site is depicted as an Office District with a Business Park (BP) designation under the City's Title 17 Zoning Ordinance. Uses that are generally permitted in the BP zone include Public/Quasi-Public Uses (e.g., Day Care Facilities, Emergency Shelters, Government Buildings, etc.); Commercial Uses (e.g., Business Services, Information Technology Services, etc.); Industrial Uses (e.g., Limited Industrial, R&D and Technology, etc.); Transportation, Communication, and Utility Uses (e.g., Antennas and Passenger Terminals [with a Major Conditional Use Permit); and various Accessory Uses that are customarily incidental to the principally permitted use. Lastly, numerous other uses may also be allowable and permitted within BP zones upon request and approval of either a Minor or Major Conditional Use Permit.

Figure 1 Regional Location

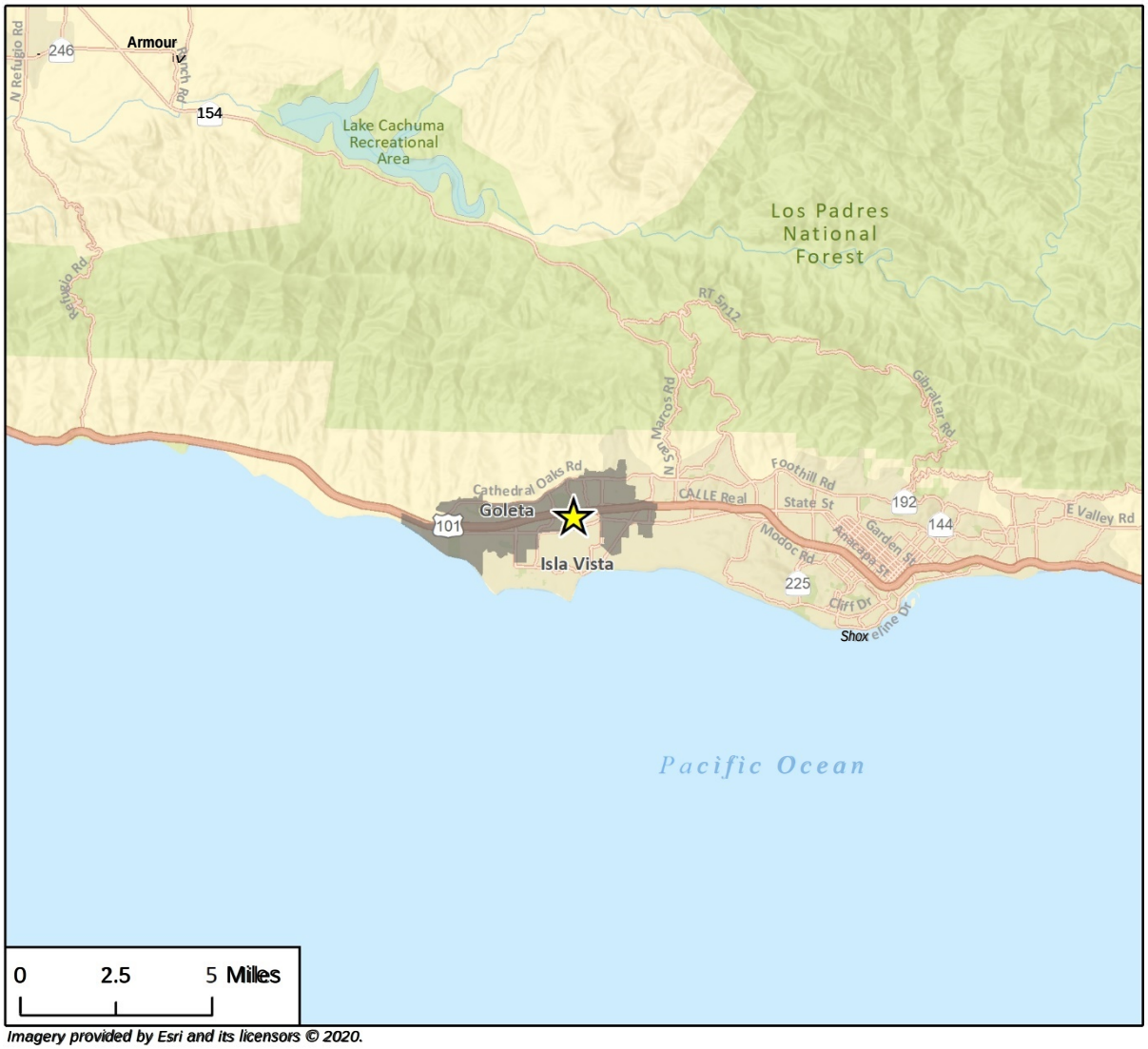
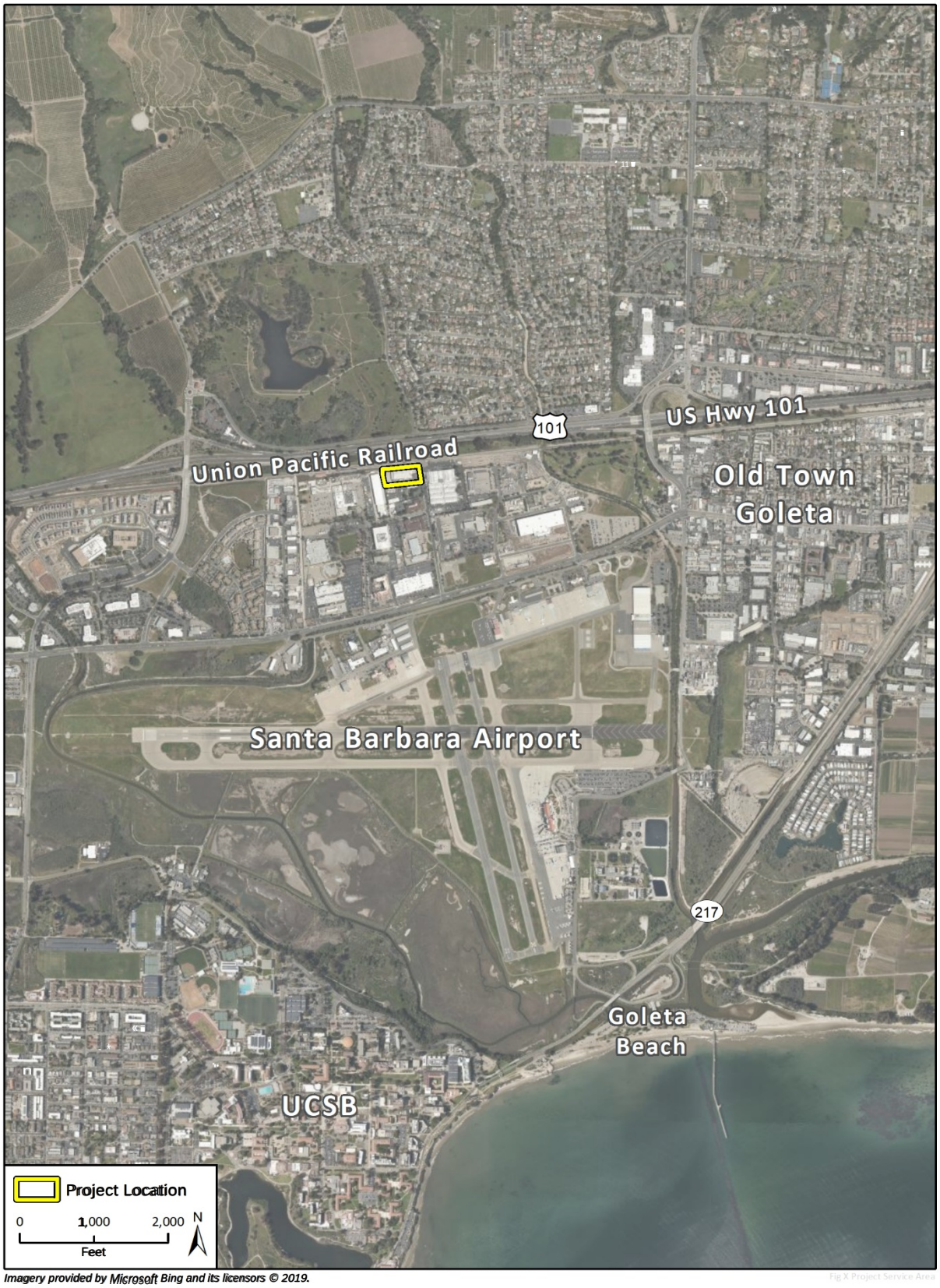


Figure 2 Nearby Uses and Facilities



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Figure 3 Project Location



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Fig 2 Project Location

6. Project Site Background

As shown in Figure 3, the project site is currently developed with an industrial warehouse structure, outdoor storage, and associated parking and pavement. The existing structure covers approximately 50 percent of the overall site and is located in the northern middle of the project area. The site is situated adjacent to the Goleta Rail Station which was opened in 1998 to serve Amtrak passengers traveling to and from the City of Goleta. The existing Goleta Rail station is served by Amtrak's Pacific Surfliner passenger rail service, which consists of a covered boarding platform with a few basic amenities such as a restroom, outdoor seating, and storage lockers. The existing station lacks adequate parking, sufficient shelters and waiting areas, food or beverage services, transportation connections, and other services to improve ridership and support the growing population and need for rail ridership. For this reason, the City of Goleta purchased the 2.5-acre project site in 2018 with the intent of constructing the Goleta Train Depot and improving train ridership in the City. Figure 4a and Figure 4b includes a series of four images that illustrate the existing conditions of the project site.

7. Description of Project

The proposed project would seek to demolition and remove the existing industrial warehouse structure in order to develop a new train depot on the City-owned property adjacent to the existing Goleta Rail Station. New pedestrian connections would be provided to the existing platform and platform canopy. No improvements to the existing platform or platform canopy are proposed as part of this project as they are both located on UPRR property. Based on Amtrak's ridership projections, the proposed Train Depot would be categorized as a Caretaker Station, which requires a platform, platform canopy, a station building, pick-up/drop-off lanes, adequate signage and lighting, and various other amenities consistent with the *Amtrak Station Program and Planning Guidelines* (Amtrak 2013). Caretaker Stations are not staffed by Amtrak agents, but the facility would be maintained and up kept either by an Amtrak caretaker or City staff. As a platform and platform canopy already exist, the proposed project would construct a new Train Depot building and any required associated amenities with the subject site or the City-owned right-of-way adjacent to and leading to the site. The proposed Train Depot would be located in the northern portion of the project site, adjacent to the railroad right-of-way, as shown on the site plan in Figure 5. The proposed new structure would be approximately 9,000 square feet and would provide a permanent, enclosed, and safe structure for Amtrak passengers to use as they wait to board or after they disembark from trains. Consistent with the City's adopted Green Building Policy, the building would be designed and constructed to meet Leadership in Energy and Environmental Design (LEED) Silver standards, although such LEED Silver certification is not a requirement.

On-Site Amenities

The proposed project would include a number of on-site amenities that are intended to increase train ridership and improve upon the overall enjoyment and convenience of rail travel. The proposed new Train Depot would also include a lobby, vending machines, a café and kitchen area for riders to purchase beverages and food, restroom facilities, multiple indoor waiting areas, a meeting room, an on-site ticketing area, as well as adequate luggage and storage space for the public to use, which would be located adjacent to the Amtrak platform. The project will also accommodate bicycle access and provide onsite bicycle storage options.

Figure 4a Existing Site Conditions



View of the east side of the existing building looking northwest



View of the south side of the existing building looking east towards S. Patera Lane

Figure 4b Existing Site Conditions



View of the west side of the existing building looking north



View of the north side of the existing building looking east along the railroad right-of-way

Figure 5 Proposed Development Site Plan



In addition to amenities located inside the proposed new Depot building, the project would also provide ample vehicle parking on an adjacent surface parking lot. Outdoor seating and a play area for children may also be provided adjacent to the proposed building. A proposed "Kiss N' Ride" space in front of the building would allow for designated pick-up and drop-off locations for passengers, including a separate space to accommodate Transportation Network Companies (TNCs) such as Uber and Lyft. Finally, historical displays both inside and outside of the proposed Depot building would provide riders and visitors with a chance to learn more about the railroad history of Goleta and the South Coast area.

Signage

Signage at the proposed new Train Depot would be provided for convenient and effective wayfinding throughout the site for train users. The signs would be designed in compliance with *Amtrak Graphic Signage Standards Manual* and would be consistent in general appearance with other Amtrak stations up and down the coast. Proposed signage to be included in the Goleta Train Depot would include:

- **Service Identification Signs**. Identifying service and amenities at the Train Depot.
- **Curb Identifier Signs.** Identifying designated areas for passenger pick-up or drop-off, as well as designating areas for TNC services.
- **Freestanding Displays.** To provide information on shuttle and bus services as well as other historical information.
- **Monument Signs.** In addition to traditional wayfinding signage, a limited number of project monument signage with project identification would also be installed throughout the site.
- **Electronic Changeable Copy.** To provide updated information on train timing and information for passengers.

Lighting and Safety Features

On-site, low-intensity lighting would be proposed to be installed throughout the project site within the parking lot, along pedestrian walkways, and outside the Train Depot building to improve on-site wayfinding and safety. Lighting would be designed in compliance with the City's General Plan policies and development standards within Title 17, Zoning Ordinance relating to outdoor lighting. In addition to on-site lighting, the project would also provide designated crosswalk areas between the Depot's parking lot and the proposed Train Depot building, as shown in Figure 5.

Landscaping

The proposed project would also include adequate landscaping throughout the site, both within parking lot planters, within the Goleta Train Depot entrance median, and to the east and west of the proposed Depot building itself. Newly planted native trees would be located adjacent to the proposed Depot building and would provide shade for waiting passengers. All plants and landscaping would use drought-tolerant, low-water usage plant varieties. Lastly, a large percentage of the site landscape areas would be designed to accommodate low impact design (LID) measures for storm water management using flow-through rain gardens, optional filter boxes, permeable pavers, and/or other forms of porous pavement.

Parking and Site Access

Access to the site would be reconfigured from its existing ingress/egress pattern and is proposed to be taken from two one-way entrance and exit driveways located off S. La Patera Lane at the northeastern and southeastern corners of the site. The driveways would also be connected by an internal, U-shaped accessway, which would be located to the south of the proposed Depot building. An additional turnaround would be located at the entry of the site and would be designed to allow buses and shuttles to provide easy drop-off and pick-up passengers. Approximately 126 parking spaces would be provided for passengers to leave their vehicles for various lengths of time. Electric vehicle charging stations would be provided on site pursuant to Chapter 17.38 of the Goleta Zoning Ordinance.

Off-Site Improvements

Project implementation proposes to include incorporating several existing off-site activities and improvements. These include use of an existing turnaround located at the northern terminus of S. La Patera Lane, which serves as the stopping point and turnaround for Santa Barbara Metropolitan Transit District (MTD) and Amtrak buses accessing the existing Goleta Rail Station. This area also provides access to the Rail Station, areas for designated passenger pick-up and drop-off, and space for large vehicles and buses using S. La Patera Lane to turn around.

The proposed project would also relocate the existing turnaround southward, as it is currently partially located within UPRR right-of-way. The relocation of the turnaround would allow space for new amenities and services for passengers on the east side of the Train Depot. The relocated turnaround would continue to provide an adequate area for arriving emergency vehicles, buses, and large trucks. The project would provide an additionally scheduled stop for Santa Barbara Metropolitan Transit District (MTD) peak hour and bus services and future expanded shuttle services. Each of these proposed improvements would occur within City's right-of-way and would involve various roadway and sidewalk improvements.

Utilities

Electricity to the project site would continue to be provided by Southern California Edison (SCE) and natural gas would continue to be provided by the Southern California Gas Company (SoCalGas). Potable water would be supplied by the Goleta Water District (GWD) and sanitary sewer services would be provided by the Goleta Sanitary District (GSD). Law enforcement would be provided by the Santa Barbara County Sheriff's Department, which is contracted by the City to provide police services. In general, the project would connect to and use all of the different existing utilities, infrastructure, and other facilities that currently provide service the project site and other surrounding development.

The project site and surrounding area is served by existing internet, telephone, and television providers operating in the City. Due to the nature of the proposed project, internet services would be the main need for the project. There are a number of internet providers that can serve the project site, including but not limited to Frontier, Spectrum, Cox Communications, and Viasat.

Phased Development

Development of the proposed project is expected to take approximately 24 months and would occur in five phases, as follows:

- The first phase of construction would involve demolition and removal of all debris and waste materials associated with the existing 39,800 square foot warehouse structure;
- The second phase would include initial site preparation to remove any remnant concrete foundations and any remaining miscellaneous debris and vegetation within the development area to prepare it for rough grading;
- The third phase would include rough grading of the site to prepare it for construction activities;
- The fourth phase would involve construction and painting of the new Depot as well as any associated finish grading around the site;
- The fifth phase would involve paving and striping of the parking lot and ingress/egress areas, as well as the installation of site landscaping, lighting, and signage.

As the project site is currently developed within an industrial warehouse facility, the topography of the site is relatively flat. Therefore, the project would require minimal overall site grading to accommodate the proposed development. The Noise Element of the City of Goleta's General Plan limits noise-generating construction activities adjacent to or near nonresidential buildings to the hours of 7:00 a.m. to 4:00 p.m., Monday through Friday. All construction activities being proposed would also comply with the Goleta Municipal Code (GMC) Chapter 9.09, which regulates excessive and unreasonable noise within the City. Lastly, the existing platform and platform canopy at the Depot would continue to operate throughout all phases of the City's construction activities.

8. Surrounding Land Uses and Setting

The project site is located on a site that is currently zoned for light industrial and business park uses within the City. The existing setting and surrounding land uses include the Goleta Rail Station, as well as the UPRR and US 101, which are both located to the north of the project site. To the east and west of the project site are a number of existing light industrial and warehouse facilities. Office and business park uses are also located to the south of the project site along Hollister Avenue. Also located near the southern property line of the project site is the historic Daniel Hill Adobe, which is a County of Santa Barbara Place of Historic Merit and is also recognized in the City's General Plan as a locally significant historic resource. Table 1 below provides additional details relating to existing, surrounding land uses and associated Zoning District designations.

Table 1 Surrounding Land Use Designation

	Existing Land Use	General Plan Designation	Zoning Designation
Project Site	Industrial Facility	I-BP - Business Park	BP - Business Park
North	Goleta Train Depot, UPRR, and US 101	P-S – Public and Quasi-public	Public/Quasi Public
West	Light Industrial businesses and warehouse	I-BP – Business Park	–BP – Business Park
South	Office Park, Daniel Hill Adobe	I-BP – Business Park	BP – Business– Park
East	Manufacturing and warehouse	I-BP – Business Park	BP – Business– Park

9. Other Public Agencies Whose Approval is Required

- **Union Pacific.** Work and improvements within Union Pacific right-of-way would require consultation and approval.
- **Amtrak.** On-site amenities would have to be consistent with *Amtrak Station Program and Planning Guidelines*.
- **Goleta Water District.** A can-and-will serve letter would be required prior to approval of the project.
- **Goleta Sanitary District.** A can-and-will serve letter would be required prior to approval of the project.
- **Santa Barbara County Association of Government (SBCAG).** SBCAG is the Regional Transportation Planning Agency and the recipient of the TIRCIP grant funding for the project.

10. California Native American Tribe(s) Traditionally and Culturally Affiliated with the Project Area To Receive Consultation Pursuant to Public Resources Code Section 21080.3.1

Santa Ynez Band of Chumash Indians
Mailing Address: Tribal Hall, P.O. Box 517, Santa Ynez, CA 93460
Phone No.: (805) 688-7997

Environmental Factors Potentially Affected

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

☐	Aesthetics	☐	Agriculture and Forestry Resources	■	Air Quality
■	Biological Resources	■	Cultural Resources	☐	Energy
■	Geology/Soils	■	Greenhouse Gas Emissions	■	Hazards & Hazardous Materials
☐	Hydrology/Water Quality	☐	Land Use/Planning	☐	Mineral Resources
■	Noise	☐	Population/Housing	☐	Public Services
☐	Recreation	■	Transportation	■	Tribal Cultural Resources
■	Utilities/Service Systems	☐	Wildfire	■	Mandatory Findings of Significance

Determination

Based on this initial evaluation:

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

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

■ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "less than significant with mitigation incorporated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☒ I find that although the proposed project could have a significant effect on the environment, because all potential significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

May 16 2020
Date

Jaime A. Valdez
Printed Name

Principal Project Manager Project Ma
Title

Environmental Checklist

1 Aesthetics

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	■	☐
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	■
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	■
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	☐	☐	■	☐

Analysis

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

LESS THAN SIGNIFICANT IMPACT

The Visual and Historic Resources Element in the City's General Plan identifies views of scenic resources that are to be protected, which include:

- Pacific Ocean/Santa Barbara Channel
- Views of the Channel Islands
- Pacific shoreline, including beaches, dunes, lagoons, coastal bluffs, and open coastal mesas
- Goleta and Devereux Sloughs
- Creeks and vegetation associated with riparian corridors

- Agricultural areas, including those under production as well as fallow agricultural lands
- Lake Los Carneros and the surrounding woodlands
- Prominent natural landforms, such as the Santa Ynez Mountains and foothills (Goleta 2006a)

Figure 6-1, *Scenic and Visual Resources*, in the General Plan identifies important views of these resources throughout the City. Views of the Pacific Ocean and other scenic resources along the shoreline are not visible from the project site. In addition, agricultural resources or riparian corridors are not visible from the project site or surrounding area. The Santa Ynez foothills can be seen to the north from project site. The proposed train depot structure would be in the same developed footprint area as the existing warehouse but would be 30,000 square feet smaller. The project site is also located in a developed, light-industrial and office area of the City, and expansive views of the City are limited and blocked by existing buildings surrounding the project site, which range from one to three stories. Therefore, views of these foothills to the north would not be impacted by a new train depot structure. The replacement of an existing warehouse with a train depot structure with a reduced footprint would not impact views in the City. Impacts would be less than significant and further analysis is not warranted.

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

NO IMPACT

U.S. 101 through the City is a designated state scenic highway. In addition, as shown in Figure 6-1 in the City's General Plan/Coastal Land Use Plan, U.S. 101 and Hollister Avenue are both designated scenic corridors in the City (Goleta 2006a). The project site is intermittently visible from U.S 101 but is partially blocked from existing vegetation and topography. There are no on-site trees or rock outcroppings whose views would be impacted by the project. The Daniel Hill Adobe is a locally significant historic resource located on the adjacent property to the south. However, the Adobe is not visible from U.S. 101 due to the existing warehouse and surrounding development. The proposed project would replace the warehouse building with a structure with a smaller footprint, as discussed above under Impact a, which would improve views of the Adobe from U.S. 101. Also, the project site is not visible from Hollister Avenue. Therefore, the project would not impact scenic resources from scenic highways and further analysis is not warranted.

c. Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

NO IMPACT

The project site is located in an urbanized, light industrial/commercial area of the City and is zoned Business Park (I-BP). As discussed within this CEQA document (Section 11 *Land Use and Planning)*, the proposed new train depot would not conflict with the designated land use and zoning of the site. The project would demolish an existing 39,000 square-foot warehouse structure and replace it with a new 9,000 square-foot train depot structure, resulting in a structure that is approximately 30,000 square feet smaller than the existing on-site structure. The proposed structure would comply with applicable development regulations in Table 17.09.030 of the Zoning Ordinance, including height, setbacks, and lot coverage, and the design of the structure would undergo advisory review

by the Design Review Board (DRB) and would be approved by the City Council. Overall, the proposed project would improve the existing visual character of the site by developing a new, modern depot structure that meets the city's architectural and site planning standards, and is further enhanced with landscaping and improved amenities. The new structure would replace an existing utilitarian and ubiquitous steel-framed warehouse structure constructed in 1967, with a flat metal roof and limited façade articulations and landscaping. Therefore, there would be no impacts to the visual character of the site and surrounding area and conflicts with scenic regulations and further analysis is not warranted.

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

LESS THAN SIGNIFICANT IMPACT

The new Goleta Train Depot would require on-site safety lighting in the parking lot and around the depot structure for Pacific Surfliner passengers and their vehicles, which may increase the amount of on-site lighting over existing conditions. As discussed in Section 2, *Project Description,* and shown in Table 1, there are no adjacent residential or sensitive land uses which would be impacted by lighting on the project site during nighttime hours. In addition, all proposed on-site lighting would comply with Chapter 17.35, *Lighting*, of the Goleta Zoning Ordinance, which prohibits all exterior lighting from being directed upwards and requires light to be fully shielded and full cutoff to prevent light from trespassing onto adjacent properties. Chapter 17.35 also required the preparation of outdoor lighting plan for review by the City and decision makers to compliance with lighting standards.

The proposed structure would not be constructed with non-reflective material such as stucco, wood, and white-painted metal, which would not create substantial amounts of glare and impact daytime views, consistent with the Airport Land Use Plan (ALUP) of the nearby Santa Barbara Municipal Airport and discussed in Section 9, *Hazards and Hazardous Materials*. Window facades on the proposed depot would be located on the northern and southern building elevations. Since the project is located in the northern hemisphere, the northern elevation would be in the shadow-cast area and the windows would not create sources of glare. Windows on the southern elevation could create glare from the reflecting sun. However, windows would be oriented vertically which can only cause wide-range reflections during sunrise or sunset. Reflecting sun during sunrise and sunset would be obstructed by surrounding development to the west and to the south of the project site. In addition, the proposed structure would be typical if surrounding business park development. Therefore, the proposed project would not impact views in the area from new sources of light or glare and further analysis is not warranted.

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2 Agriculture and Forestry Resources

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

Analysis

a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

b. Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?

c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

e. Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

NO IMPACT

The proposed project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as mapped by the California Department of Conservation (California Department of Conservation 2016). According to the California Department of Conservation, the site is designated as "Urban Built Up land." In addition, there are no agriculturally zoned properties or properties under a Williamson Act contract in the vicinity of the project site. Therefore, the proposed project would not result in any environmental changes that would lead to the conversion of any farmland to non-agricultural uses. Also, there are no lands that contain or are zoned as forest lands or timberlands in the City of Goleta. Therefore, the proposed project would not result in environmental changes that would involve the conversion of forest lands to non-forest uses. The proposed project would have no impact on agricultural or forest resources in the area and further analysis is not warranted.

3 Air Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	■	□	□	□
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	■	□	□	□
c. Expose sensitive receptors to substantial pollutant concentrations?	■	□	□	□
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	■	□	□	□

Analysis

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

b. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

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

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

POTENTIALLY SIGNIFICANT IMPACT

Construction and operation of the project would result in emissions of criteria pollutants. Therefore, the project could have potential impacts on air quality in the region and surrounding land uses and impacts will be further discussed in an EIR.

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4 Biological Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	■	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	■
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	■
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	■
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	■
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	■

The information in this section is based primarily on a Biological Resources Assessment (BRA) conducted by Rincon Consultants in January 2020. This report is included as Appendix A.

Existing Conditions

According to the BRA, there are two types of vegetation communities that occur on the project site and study area, which includes the project site and a 100-foot survey buffer: Developed Lands and Disturbed Habitats. The study area provides little habitat for wildlife species due to its developed nature and the lack of native vegetation.

Developed Lands

Developed lands includes areas that have been constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported. It is characterized by permanent or semi-permanent structures, pavement or hardscape, and landscaped areas that often require irrigation.

Approximately one acre of the 2.5-acre project site is occupied by an existing warehouse building. The remainder is paved with asphalt or concrete, with the exception of two small areas of ornamental vegetation at the southeast corner of the project site. The study area surrounding the project site is also predominantly developed, consisting of commercial and industrial buildings, paved roads and parking areas, the railroad, and ornamental vegetation. Some native plants have colonized small, unpaved areas. Three native coast live oaks (*Quercus agrifolia*) and one native California black walnut (*Juglans californica*) were observed within the study area. These trees are isolated from each other, and may either predate development of the area, were planted as part of site landscaping, or have established themselves naturally after development in the area occurred.

Disturbed Habitats

Disturbed habitats have been physically disturbed by previous legal human activity. They are no longer recognizable as a native or naturalized vegetation association but continue to retain a soil substrate. Vegetation of disturbed areas, if present, is typically composed of non-native plant species such as ornamental landscaping or ruderal exotics that take advantage of site disturbance and inhibit the growth of native plants.

No disturbed vegetation is present at the proposed project site itself. However, a narrow strip of this vegetation type is present at the northern margin of the study buffer area on the opposite side of the railroad. A review of aerial imagery indicates that this area is regularly mowed or disked. The vegetation observed during the survey was ruderal and comprised primarily of non-native grasses and weeds.

Analysis

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

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

Special-status species are those plants and animals listed, proposed for listing, or candidates for listing as endangered and threatened by the United States Fish and Wildlife Service (USFWS) under the Federal Endangered Species Act; those considered Species of Special Concern (SSC) by the

USFWS; those listed or proposed for listing as rare, threatened, or endangered by California Department of Fish and Wildlife (CDFW) under the California Endangered Species Act; animals designated as SSC by the CDFW; and CDFW special plants, specifically those occurring on lists 1B and 2 of the California Native Plant Society Inventory of Rare and Endangered Vascular Plants of California, Sixth Edition.

The California Natural Diversity Database (CNDDB) and California Native Plant Society (CNPS) query results identified 17 special-status plant species within five miles of the study area. Special-status plant species typically have specialized habitat requirements, including plant community types, soils, elevational ranges. The BRA determined that no habitat for any of these plant species exists at the project site, and none have any potential to occur there (Appendix A).

The CNDDB query results identified 25 special-status wildlife species within five miles of the study area. The potential for special-status wildlife species to occur at the site was assessed based on their known distribution and habitat requirements and the existing conditions of the site. No special-status wildlife species were detected during the survey, and most were determined to have no potential to occur due to the developed and disturbed condition of the study area, high levels of human disturbance, absence of native vegetation or aquatic habitat, and isolation from suitable habitat in the surrounding landscape.

The only special-status wildlife species found to have potential to occur in the study area are three species of bats, all CDFW Species of Special Concern: Townsend's big-eared bat (*Corynorhinus townsendii*), western mastiff bat (*Eumops perotis californicus*), and Yuma myotis (*Myotis yumanensis*). The BRA determined that the existing warehouse building on the project site may provide suitable roosting locations for these species, given the presence of potential foraging habitat in nearby Lake Los Carneros Park. If maternal roosts of special-status bats are present in the existing warehouse when demolition occurs, it may represent a significant impact and mitigation measures would be required to reduce potential impacts to sensitive bat species during construction.

In addition, migratory or other common nesting birds, while not designated as special-status species, are protected by the California Fish and Game Code (CFGC) and The Migratory Bird Treaty Act (MBTA). According to the BRA, ornamental trees and shrubs and man-made structures in the project area could provide habitat for nesting birds. If project activities occur during the nesting season, nesting birds may be impacted and mitigation measures would be required to reduce potential impacts to nesting birds during construction.

Mitigation Measures

BIO-1a Special-status Bat Species Avoidance and Minimization

- To avoid disturbance of maternal bat roosts, demolition of the warehouse building and any other structures that may support roosting bats shall be conducted outside of the bat breeding season (typically April 1 through August 31), if feasible.
- If work must begin during the bat breeding season, a qualified biologist shall conduct presence/absence surveys for bats where suitable roosting habitat is present no more than 30 days prior to initiation of project activities. Surveys shall be conducted using acoustic detectors and by visually searching ledges, crevices, and overhangs in the warehouse and any other locations in the study area where bats may roost.

- If a maternal roost is detected, project activity shall cease. CDFW shall be consulted to determine if protective buffers may be established surrounding the roost, allowing project activities to resume in other parts of the project site. Demolition of a structure supporting a maternal roost shall not occur until the young have left the site. If a non-breeding roost is detected, CDFW shall be consulted to determine if the bats can be safely evicted.
- If no roosting bats are observed during pre-construction surveys, no further actions would be necessary.

BIO-1b Pre-construction Nesting Bird Surveys

- To avoid disturbance of nesting and special-status birds, including raptor species protected by the MBTA and CFGC, project activities including vegetation removal, ground disturbance, construction, and demolition shall occur outside of the bird breeding season (February 1 through August 31), if feasible.
- If work must begin during the breeding season, a pre-construction nesting bird survey shall be conducted no more than seven days prior to initiation of project activities. The nesting bird survey shall be conducted inside the project footprint plus a 500-foot for raptors and special-status species and a 300-foot buffer for all other birds. Inaccessible parts of the survey area shall be scanned using binoculars to ensure 100 percent visual coverage. The survey shall be conducted by a biologist familiar with the identification of bird species known to occur in southern California communities.
- If active nests (those containing eggs, nestlings, or associated with dependent fledglings) are found on-site, an avoidance buffer shall be implemented around each nest and demarcated with fencing or flagging. The size of the buffers shall be determined by the biologist based upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site. No project activity shall occur inside a nest buffer until the biologist determines that the nest is no longer active.
- If no nesting birds are observed during pre-construction surveys, no further actions would be necessary.

Residual Impacts After Mitigation

Implementation of Mitigation Measures BIO-1 and BIO-2 would reduce potential impacts to sensitive bat species and nesting birds to less than significant. The mitigation measures will be included in the executive summary of the final environmental document, as well as in the project's mitigation monitoring and reporting program.

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

c. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

NO IMPACT

No riparian or other sensitive vegetation communities are present in the study area, and the project would have no effect on these resources. No potentially jurisdictional wetlands or waterways were observed in the study area. The nearest wetland habitat identified by National Wetland Inventory

(NWI) is located approximately 400 feet north of the study area on the opposite side of the railroad and U.S. 101 (Appendix A). No further analysis is warranted.

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

NO IMPACT

Wildlife movement corridors, or habitat linkages, are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. The study area is not in an area identified as a wildlife corridor. The potential movement of wildlife through the study area is minimal given the densely developed nature of the site and adjacent properties to the south, east, and west. Although open space is present north of the study area, the intervening railroad and U.S. 101 represent substantial barriers to wildlife movement. The proposed project would not impede wildlife movement beyond the existing conditions. Therefore, there would be no impact and further analysis is not warranted.

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

NO IMPACT

Under Policy CE 1 of the City of Goleta General Plan/Coastal Land Use Plan, all Environmentally Sensitive Habitat Areas (ESHA) identified in Figure 4-1 of the GP/CLUP shall be protected against significant degradation of habitat value (Goleta 2006a). No ESHA identified in Figure 4-1 of the Goleta GP/CLUP are present in the project area.

There is currently no Tree Protection Ordinance in place in the City of Goleta. Protection of trees in the City is regulated by the Conservation Element 9 (CE 9) of the Goleta General Plan/Coastal Land Use Plan, which states that all native tree species are protected. However, the Grading Ordinance Guidelines for Native Oak Tree Removal in the Goleta Municipal Code clarifies that coast live oak trees are protected only when they have a diameter at breast height (DBH) of eight inches or greater, and that no trees voluntarily planted (e.g., during landscaping) are protected. Several native coast live oak and California black walnut trees were observed in the study area buffer. Only one, a coast live oak, is present in the project site where it might be removed or otherwise impacted by project activities. This tree has a DBH of approximately two inches and was planted during landscaping. Per the Goleta Municipal Code, no protected trees are present within the proposed project site. Therefore, the project would not conflict with any local policies or ordinances and further analysis is not warranted.

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

NO IMPACT

The study area is not subject to any Habitat Conservation Plan, Natural Conservation Community Plan, or other local, regional, or state habitat conservation plan. Therefore, no impact would occur and further analysis is not warranted.

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5 Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	■	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	■	☐	☐
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	■	☐

The information in this section is based primarily on a Cultural Resources Assessment conducted by Rincon Consultants in January 2020. This report is included as Appendix B. The Assessment completed a California Historical Resources Information System records search on December 12, 2019 at the Central Coast Information Center (CCIC) at the University of California, Santa Barbara. The records search also included a review of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Historical Landmarks list, the Archaeological Determination of Eligibility (ADOE) list, and the California State Historic Resources Inventory (HRI) list. The Cultural Resources Assessment also included a review of historical topographic maps and aerial imagery of the project site to determine past land use and a pedestrian survey of the project site on December 11, 2019.

The CCIC records search identified 124 previously conducted cultural resource studies within a 0.5-mile radius of the project site. Of these, ten studies include portions the project site, which are summarized in the Cultural Resource Assessment in Appendix B.

Analysis

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

LESS THAN SIGNIFICANT IMPACT

The project site currently has a 39,000 square-foot warehouse structure that was constructed in 1967. According to the Cultural Resources Assessment, the property is ineligible for listing in the National Register of Historic Places (NRHP) and the California Register of Historic Resources (CRHR) under all criteria (Appendix B). In addition, the property does not meet any of the eligibility criteria for designation as a City of Goleta locally significant historic resource. The project site is located adjacent to the Daniel Hill Adobe property, which is designated a City of Goleta locally significant historic resource and a Santa Barbara County Place of Historic Merit. However, the project would

not cause direct or indirect impacts to the locally designated Daniel Hill Adobe. No physical changes or alterations are proposed to the Hill Adobe as a part of the proposed project. The proposed train depot would be constructed over 250 feet away from the adobe and would be largely out of view due to modern features including an existing fence and three-story building, which visually and physically separate the Adobe from the proposed new construction. Based on the above considerations, there would be a less than significant impact to historical resources and further analysis is not warranted.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

The Cultural Resources Assessment conducted a search of the Sacred Lands File (SLF) and sent letters to the ten Native American contacts identified by the Native American Heritage Commission (NAHC) to request information on potential cultural resources in the project vicinity that may be impacted by project development. The SLF search yielded positive results of archaeological resources that have been recorded in the area. Based on positive results of the SLF search, the ethnographic settlement patterns of the Chumash, and contact from the Santa Ynez Band of Chumash Indians, the Cultural Resources Assessment determined the area is considered sensitive for archaeological resources (Appendix B). However, the Assessment concluded it is unlikely that archaeological resources exist within the project site itself due to the existing level of ground disturbance, results of the record search, the pedestrian field survey which indicated a lack of archaeological resources on the project site and a low potential for encountering subsurface archaeological deposits. Unanticipated discoveries during project ground disturbance remain a possibility and impacts would be potentially significant. Mitigation measures would be required to reduce potential impacts to archaeological resources during construction.

Mitigation Measures

CR-1 Unanticipated Discovery of Cultural Resources

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) should be contacted immediately to evaluate the find. If the discovery proves to be eligible for listing on the California Register of Historical Resources, additional work may be warranted, such as data recovery excavation, Native American consultation, and archaeological monitoring to treat the find.

Residual Impact After Mitigation

Implementation of Mitigation Measure CR-1 would reduce potential impacts to unanticipated discoveries during ground-disturbing activities to less than significant. The mitigation measure will be included in the executive summary of the final environmental document and in the project's mitigation monitoring and reporting program.

d. Would the project disturb any human remains, including those interred outside of formal cemeteries?

LESS THAN SIGNIFICANT IMPACT

The discovery of human remains could occur during ground disturbing activities. However, if human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). The MLD has 48 hours from being granted site access to make recommendations for the disposition of the remains. If the MLD does not make recommendations within 48 hours, the land owner shall reinter the remains in an area of the property secure from subsequent disturbance. With adherence to required regulations, the project would have a less than significant impact on disturbing human remains, and no further analysis is warranted.

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6 Energy

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	■	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	■	☐

Electricity

Southern California Edison (SCE) provides electric utilities for the City of Goleta and the project site. SCE's 2018 power content label and energy sources were from the following: 36 percent renewable resources, 6 percent nuclear energy, 4 percent hydroelectric, 17 percent natural gas, and 37 percent unspecified (SCE 2019). According to the California Energy Commission (CEC), Santa Barbara County consumed approximately 2,832 giga-watt hours (GWh) of electricity in 2018 (CEC 2019a). Table 2 illustrates the County's 2018 electricity consumption in comparison to statewide consumption and displays the County's equivalent per capita energy consumption from its electricity demand. With a current population of 446,527, Santa Barbara County's 2018 annual per capita electricity consumption was approximately 6,343 kWh, or 21.6 million British thermal units (Btu) (U.S. Census Bureau 2020).

Table 2 2018 Annual Electricity Consumption

Energy Type	Santa Barbara County (GWh)	California (GWh)	Proportion of Statewide Consumption	County per Capita Consumption (kWh)	County per Capita Consumption (MMBtu)
Electricity (MWh)	2,832.2	281,120.2	1.0%	6,342.7	21.6

Source: CEC 2019a

Natural Gas

Goleta falls within the Southern California Gas Company's (SoCalGas) natural gas service area. In 2018, SoCalGas customers consumed a total of 5.2 billion therms of natural gas. Residential users accounted for approximately 42 percent of PG&E's natural gas consumption. Industrial and commercial users accounted for another 33 and 18 percent, respectively. The remainder was used for mining, construction, agricultural, and water pump accounts (CEC 2019b).

According to the CEC, Santa Barbara County consumed approximately 125 million therms of natural gas in 2018 (CEC 2019c). In 2018, Santa Barbara County users accounted for approximately 2.4 percent of SoCalGas's total natural gas consumption across the entire service area and approximately one percent of the statewide natural gas consumption. Table 3 illustrates the County's 2018 natural gas consumption in comparison to statewide consumption and displays the County's equivalent per capita energy consumption from its natural gas demand. With a population of 446,527, Santa Barbara County's 2018 per capita natural gas consumption was approximately 280 therms, or approximately 26 million Btu.

Table 3 2018 Annual Natural Gas Consumption

Energy Type	Santa Barbara County (U.S. therms)	California (U.S. therms)	Proportion of Statewide Consumption	County per Capita Consumption (U.S. therms)	County per Capita Consumption (MMBtu)
Natural Gas	124,900,000	12,666,398,560	1.0%	279.7	26.0

Source: CEC 2019c

Analysis

a. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

LESS THAN SIGNIFICANT IMPACT

Construction

Project construction would result in short-term consumption of energy from the use of construction equipment and processes. Energy use during construction would be primarily from fuel consumption to operate heavy equipment, light-duty vehicles, machinery, and generators. Temporary grid power may also be required for construction trailers or electric construction equipment. Energy use during construction would be temporary in nature, and construction equipment used would be typical of similar-sized construction projects in the region. Project construction contractors would demonstrate compliance with applicable CARB regulations that restrict the idling of heavy-duty diesel motor vehicles and govern the accelerated retrofitting, repowering, or replacement of heavy-duty diesel on- and off-road equipment. Construction contractors would be required to comply with the provisions of 13 CCR Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and off-road diesel vehicles from idling for more than five minutes, thereby minimizing unnecessary fuel consumption. Furthermore, the project would comply with the 2019 CALGreen requirements to divert a minimum of 65 percent of construction and demolition debris. These practices would result in efficient use of energy necessary to construct the project. In the interest of cost efficiency, construction contractors would not be anticipated to use fuel in a wasteful or unnecessary manner. Therefore, the project would not involve the inefficient, wasteful, and unnecessary use of energy during construction, and the project's construction energy consumption would be less than significant.

Operation

Energy demand from the operation of the proposed train depot would include fuel consumed by passenger vehicles; natural gas consumed for heating the building; and electricity consumed by the depot, including lighting, water conveyance, and air conditioning. The project would increase vehicle trips to the site over existing conditions. However, because the proposed train depot would increase ridership on Amtrak's Pacific Surfliner, the project would reduce overall vehicle miles travelled (VMT) in the area by approximately six million miles (SBCAG 2018). Therefore, the project would not have a significant operational energy impact with regards to fuel consumption.

There is existing energy and natural gas use on the project site from the operation of the warehouse. However, because only a portion of the warehouse is occupied by the local food bank, the proposed project could increase electricity and natural gas use on the project site over existing conditions. The project would comply with standards set in California Building Code (CBC) Title 24, which would minimize the wasteful, inefficient, or unnecessary consumption of energy resources during operation**.** CALGreen Title 24, Part 11 requires implementation of energy-efficient light fixtures and building materials into the design of new construction projects. Furthermore, the 2019 Building Energy Efficiency Standards (CBC Title 24, Part 6) requires newly constructed buildings to meet energy performance standards set by the CEC. According to the CEC, nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades (CEC 2018). Furthermore, pursuant to Goleta's Green Building Policy from the Green Building Project, the proposed project would be constructed to silver certification standards under the Leadership in Energy Environmental and Design (LEED) rating system. The project would also continue to reduce its use of nonrenewable energy resources as the electricity generated by renewable resources provided by SCE continues to increase in order to comply with state requirements through Senate Bill 100, which requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045. Therefore, the electricity and natural gas use would not result in a significant increase for SCE or SoCalGas and the project would not result in a wasteful or unnecessary energy consumption. Impacts would be less than significant and further analysis is not warranted.

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

LESS THAN SIGNIFICANT IMPACT

As discussed in question (*a*), the project would comply with CALGreen and the Building Energy Efficiency Standards, which specify energy efficiency requirements. The project is not located on a site identified for renewable resource production. The City of Goleta adopted energy efficiency goals and policies within its General Plan and reduction measures in its Climate Action Plan. Table 4 identifies energy conservation related policies provided in the City's General Plan and its Climate Action Plan that are applicable to the proposed project and describes the project's consistency with these policies.

Table 4 Project Compliance with Energy Efficiency Goals and Policies

Energy Efficiency Goal or Policy	Project Consistency
City of Goleta General Plan	
CE 13.2 Energy Efficiency in Existing and New Commercial and Industrial Development: The City shall promote the following practices in new commercial and industrial buildings: ▪ Reduction of energy consumption in existing buildings through improved design and management of heating, ventilation, air conditioning systems, and lighting is encouraged. Master metering is discouraged, and conversions to metering for individual tenant spaces shall be promoted where feasible ▪ The City shall enforce the state's residential energy conservation building standards set forth in Title 24 through its plan check and building permit issuance processes ▪ The City shall encourage nonresidential buildings to be designed in a manner that is appropriate for local climate conditions, taking into account natural light and ventilation, placement of landscaping, and use of integrated energy systems. This encompasses concepts such as cogeneration, waste heat systems, and other similar technologies	Consistent. The project would comply with CBC Title 24 and CALGreen standards. Also, the project would be constructed to silver certification standards under LEED rating system, which includes building siting and natural energy reducing measures.
CE 13.4 Energy Conservation for City Facilities and Operations: The City shall implement energy conservation requirements for City-owned facilities at the time of major improvements. Energy conservation measures may include energy-efficient interior and exterior building lighting, energy-efficient street lighting, natural ventilation and solar hot water systems, and landscaping with drought-tolerant species and deciduous trees to shade streets and the south and west sides of buildings in summer. For all City construction projects, the City shall comply with the state's energy conservation building standards set forth in Title 24. The City vehicle fleet shall use a mix of fuels that best achieves energy efficiency while meeting operational needs.	Consistent. The project would comply with CBC Title 24 and CALGreen standards. Also, the project would be constructed to silver certification standards under LEED rating system
TE 1.1 Alternative Modes: The City's intent shall be to achieve a realistic and cost-effective balance between travel modes, including bikeways, pedestrian circulation, and bus transit. The City shall encourage the use of alternative modes of transportation, such as bus transit, bicycling, and walking, which have the additional beneficial effect of reducing consumption of non-renewable energy sources	Consistent. The project would provide recommended amenities to increase ridership on Amtrak's Pacific Surfliner passenger rail service.
City of Goleta Climate Action Plan	
BEE-1: Continued Implementation of Residential and Commercial Building Code that Exceeds Title 24 Standards by 15 percent effective through Code Expiration (July 2014)	Consistent. The project would exceed Title 24 standards and meet LEED silver certification standards.
RE-1: Continue Implementation of Ordinance Requiring Construction of Solar-Ready Buildings	Consistent. Consistent with CALGreen requirements, the project would at least be constructed with wiring for solar installation.

Source: Goleta 2006a; 2014

The City also adopted the Energy Efficient Action Plan in 2012, which focuses on energy efficient upgrades to City facilities and vehicles. The proposed project does not conflict with or prevent the City from implementing the steps in the Energy Efficient Acton Plan. Therefore, impacts would be less than significant and further analysis is not warranted.

7 Geology and Soils

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	■	☐
2. Strong seismic ground shaking?	☐	☐	■	☐
3. Seismic-related ground failure, including liquefaction?	☐	☐	■	☐
4. Landslides?	☐	☐	■	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	■	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	■	☐
d. Be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	■	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	■
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	■	☐	☐

The analysis is based on a Geotechnical Report prepared for the project by ENGEO Inc. (Appendix C).

Analysis

a.1. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

a.2. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

LESS THAN SIGNIFICANT IMPACT

The project site is not located in an Alquist-Priolo Earthquake Fault Zone which would create a fault rupture hazard at the project site (California Department of Conservation 2019). There are several active faults in the region that are capable of causing strong ground shaking in the project area if a major earthquake were to occur. The More Ranch Fault, part of a regional fault zone comprising the Mission Ridge Fault and Arroyo Parida Fault System that extends across the Santa Barbara Plain and into the Santa Ynez Mountains, is located approximately 0.6 miles south of the project site and is considered capable of a magnitude earthquake of 6.9 and has a 30-year probability for a Magnitude 6.7 or greater (Appendix C). Therefore, strong ground shaking during seismic activity is a potential hazard for the proposed project. Project construction would be subject to compliance with the seismic safety standards of the California Building Code (CBC), which are adopted and incorporated into the Goleta Municipal Code. The CBC includes excavation and recompaction measures to ensure structural stability in the event of a seismic event. Compliance with applicable CBC requirements would reduce impacts related to strong seismic ground shaking would be less than significant and further analysis is not warranted.

a.3. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

LESS THAN SIGNIFICANT IMPACT

Liquefaction susceptibility is based on the area's risk to severe ground shaking, the height of groundwater, and the density and type of soil deposits. According to the Goleta General Plan/Coastal Land Use Plan, areas that are underlain by younger alluvium deposits are the most vulnerable for potential liquefaction (Goleta 2006a).The Geotechnical Report determined that lateral spreading of soil due to lurching or liquefaction is relatively low due to the relatively level topography of the project site. However, the report determined that a silty-sand layer found below the groundwater level is potentially liquefiable (Appendix C). The Geotechnical Report included foundation recommendations which would mitigate potential impacts of liquefaction on the proposed project. The City of Goleta includes a standard condition of approval for compliance with recommendations in a geotechnical report. Therefore, impacts would be less than significant and further analysis is not warranted.

a.4. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

LESS THAN SIGNIFICANT IMPACT

The topography of the project site and surrounding area is relatively flat. In addition, as shown on the Geologic Hazards Map in the City of Goleta General Plan/Coastal Land Use Plan, the project site is not mapped in an area of moderate or high landslide potential (Goleta 2006a). The General Plan/Coastal Land Use Plan states that landslides are potential risks in areas around railroad and railroad cuts. However, the cuts on each side of the railroad tracks adjacent to the project site are not substantial enough to cause adverse effects to the project site. The Geotechnical Report indicated no additional geologic features that could significantly affect the development of the site. Therefore, impacts related to landslides would be less than significant and further analysis is not warranted.

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

LESS THAN SIGNIFICANT IMPACT

Project construction activities, including excavation and grading, have the potential to cause a loss of topsoil and soil erosion. During construction, short-term erosion impacts would be reduced by compliance with the National Pollutant Discharge Elimination System (NPDES) General Permit, which would require the implementation of a stormwater pollution prevention plan (SWPPP)and the implementation of various BMP's to reduce erosion during construction activities. Compliance with the NPDES permit and BMPs during construction such as straw wattles and silt fencing would reduce impacts resulting from loss of topsoil. In addition, the project would be required to prepare an Erosion and Sediment Control Plan prior to the issuance of a grading permit in the City. Compliance with these regulations would reduce impacts to soil erosion and a loss of topsoil to a less than significant level and further analysis is not warranted.

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

d. Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

LESS THAN SIGNIFICANT IMPACT

According to the Geotechnical Report, due to the relatively level topography, the likelihood of lateral spreading and landslides is low. Additionally, there is low potential for regional subsidence or uplift due to surrounding topography and lithologic data (Appendix C). Unstable soils include expansive, compressible, erodible, corrosive, or collapsible soils. Expansive soils are associated with soils, alluvium, and bedrock formations that contain minerals susceptible to expansion under wet conditions and contracting under dry conditions. The Geotechnical Report identified expansive lean clay near the surface of the site in three separate borings that could potentially cause shrinking and swelling in these areas. In any event, all new construction is required to adhere to local and state mandated grading and construction requirements, including but not limited to the CBC and City ordinances and engineering standards. Additionally, with adherence to recommendations in the geotechnical report, impacts from unstable soils and placing structures on expansive soils would be less than significant and further analysis is not warranted.

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

NO IMPACT

The project would connect to the existing sewer system and not use septic tanks or another alternative wastewater disposal system. Therefore, there is no impact to soils from proposed septic tanks or wastewater. Further analysis of this issue is not warranted.

f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

The potential for impacts to significant paleontological resources is based on the potential for ground disturbance to directly impact paleontologically sensitive geologic units. According to published geologic mapping and the geotechnical report, the project area is underlain by Holocene and late Pleistocene alluvium and colluvium (Qac), consisting of poorly consolidated silt, sand, and gravel deposits of modern drainages and piedmont alluvial fans and floodplains, and late Pleistocene intermediate alluvial deposits (Qia), consisting of weakly consolidated, stratified silt, sand, and gravel that form low rounded, moderately dissected terraces and piedmont alluvial fans that rest at higher elevations compared to younger alluvial and colluvial deposits at lower elevations (Minor et al. 2007; Appendix C).

Data presented in the geotechnical report indicate that the project area is immediately underlain by approximately five feet of artificial fill, which is subsequently underlain by various layers of clayey sand, silty sand, silt, and clay. At approximately 35 feet below ground surface, shell hash was noted in borehole logs (Appendix C). A search of the paleontological locality records maintained in the University of California Museum of Paleontology (UCMP) online collections database did not report any vertebrate fossil localities within the project site; however, numerous vertebrate, invertebrate, planktonic, and plant fossils have been recorded throughout Santa Barbara County. Based on the literature review, geologic map review, and online database review, artificial fill and Holocene and late Pleistocene alluvium and colluvium (Qac) have a low paleontological sensitivity in accordance with SVP (2010) guidelines, and late Pleistocene intermediate alluvial deposits (Qia) have a high paleontological sensitivity in accordance with SVP (2010) guidelines (Agenbroad 2003; Dooley et al. 2019; Jefferson 1985, 1989, 1991; Savage 1951; Savage et al. 1954; Springer et al. 2009; Winters 1954; UCMP 2020).

Ground-disturbances associated with the project's construction would occur during the third phase of the project and would include minor site grading to remove debris and artificial fill. Although grading plans have not been finalized for the project, grading associated with the project's construction will likely be shallow (i.e., up to five feet below ground surface) and is unlikely to impact native, previously undisturbed sediments of Pleistocene age that have a high potential for significant fossil resources. Given that the fossiliferous deposits occur at greater depths than anticipate ground disturbance, the potential for encountering fossil resources is low and impacts to paleontological resources are not expected. However, unanticipated fossil discoveries during any ground-disturbing activities associated with the project remain a possibility and impacts to any such resources would be potentially significant. Mitigation measures would be required to reduce potential impacts to paleontological resources.

Mitigation Measure

GEO-1 Unanticipated Discovery of Paleontological Resources

In the event an unanticipated fossil discovery is made during construction, in accordance with SVP (2010) guidelines, construction shall stop within 50 feet of the find or be redirected to another area of the site and a qualified professional paleontologist shall be retained to evaluate the discovery, determine its significance and if additional mitigation or treatment is warranted. Work in the area of the find will resume once the find is properly documented and authorization is given to resume construction work by the qualified paleontologist in coordination with the City. Any significant paleontological resources found during construction monitoring will be prepared, identified, analyzed, and permanently curated in an approved regional museum repository (e.g., UCMP).

Residual Impact After Mitigation

Implementation of Mitigation Measure GEO-01 (and Geo-02 thru Geo-04) would apply to all phases of project construction and would ensure that potential impacts to paleontological resources would be less than significant by providing for the recovery, identification, and curation of previously unrecovered fossils. The mitigation measure will be included in the EIR's executive summary and in the project's mitigation monitoring and reporting program.

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8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	■	□	□	□
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	■	□	□	□

Analysis

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

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

Construction and operation of the project would result in GHG emissions. Impacts are potentially significant and will be analyzed in an EIR.

POTENTIALLY SIGNIFICANT IMPACT

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9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	■	□	□	□
a. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	■	□	□	□
b. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	□	□	□	■
c. Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	□	□	□	■
d. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	□	□	■	□
e. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	□	□	■	□
f. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	□	□	□	■

The information in this section is based primarily on a Phase I Environmental Site Assessment (ESA) conducted and prepared by Rincon Consultants in January 2020. This report is included as Appendix D.

Analysis

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

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

POTENTIALLY SIGNIFICANT IMPACT

The Phase I ESA found two Recognized Environmental Conditions (RECs), three potential RECs, and one condition of concern on the project site, which include:

1. The presence of a 6,000-gallon historic UST reported on the subject property (REC).
2. The presence of an existing 1,800-gallon diesel UST located on the subject property (REC).
3. Former agricultural use of the subject property (Potential REC).
4. The former Industrial use of the subject property as a bus transportation facility, as well as the presence of former sumps and "service shops" (Potential REC).
5. The presence of railroad tracks adjacent to the north of the subject property (Potential REC).
6. The presence of a capped water supply well reported on the subject property (Other Condition of Concern; Appendix D)

Therefore, the project would have the potential to result in the release of hazardous materials during construction. Impacts are potentially significant and will be analyzed in an EIR.

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

NO IMPACT

Construction of the project could result in the movement of contaminated soils and building materials. The nearest school to the project site is La Patera Elementary School, which is located approximately 0.7 mile to the north. Therefore, the project would not handle hazardous materials within 0.25 mile of an existing school. Further analysis is not warranted.

d. Would the project be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

NO IMPACT

The Phase I ESA contracted Environmental Data Resources, Inc. (EDR) to provide a database search of public lists of sites that generate, store, treat, or dispose of hazardous materials or sites for which a release or incident has occurred. In addition, Rincon reviewed regulatory information obtained from review of online sources (e.g., State Water Resources Control Board (SWRCB) GeoTracker database, Department of Toxic Substances Control [DTSC] EnviroStor database) and files requested

from the applicable regulatory agency. According to the search results, the project site was not listed in any databases that are indicative of a hazardous materials release.

The Phase I ESA also reviewed EDR Radius Map and select detailed listings to evaluate offsite properties and their potential to impact the project site. In accordance with American Society for Testing and Materials (ASTM), contamination migration pathways in soil, groundwater, and soil vapor were considered in the analysis of offsite properties of potential environmental concern. Three adjacent properties were listed in databases searched by EDR. The Phase I ESA concluded, based on the documents reviewed, the three adjacent sites are not expected to impact the subject property. In addition, based on the anticipated groundwater flow direction to the south-southeast, there are no upgradient release sites listed by EDR (Appendix D). Therefore, there would be no impacts and further analysis is not warranted.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

LESS THAN SIGNIFICANT IMPACT

The project site is located approximately 0.3 miles north of the Santa Barbara Municipal Airport and within the adopted 1993 (ALUP) for the Santa Barbara Municipal Airport. The project site is located outside the noise contours of the ALUP (SBCAG 1993). However, the project site is located within Safety Zone 2, the Inner Approach/Departure Zone. Transit uses such as the proposed project are determined to be compatible within the Safety Zone 2/Approach Zone (SBCAG 1993). The project would not include direct or steady flashing lights and the proposed depot structure would not include reflective material which would impact approaching or departing aircraft. In addition, the City's General Plan and proposed land uses have been reviewed and approved by SBCAG for consistency with the ALUP. The Goleta Train Depot would not require a General Plan amendment and would comply with all applicable land use regulations, including height, for the proposed development. Therefore, the project would be considered consistent with the ALUP and would not result in additional safety hazards for passengers. Impacts would be less than significant and further analysis is not warranted.

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

LESS THAN SIGNIFICANT IMPACT

The project would not result in the construction of any new facilities or establishment of new uses that could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The project would serve Pacific Surfliner passengers which currently use the Goleta Rail Station. The project would not block any existing rights-of-way for the railroad or public roadways. Therefore, impacts would be less than significant and further analysis is not warranted.

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

NO IMPACT

As discussed in Section 19, *Wildfire*, the project site is not located near areas designated to have risks to wildland fires. There would be no impacts and further analysis is not warranted.

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10 Hydrology and Water Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	■	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	■	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) Result in substantial erosion or siltation on- or off-site;	☐	☐	■	☐
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	■	☐
(iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	■	☐
(iv) Impede or redirect flood flows?	☐	☐	■	☐
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	■
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	■

Analysis

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

LESS THAN SIGNIFICANT IMPACT

Construction

Project construction would involve demolition of the existing 39,800 square-foot warehouse structure and associated facilities, ground-disturbing activities, and use of heavy construction equipment. Grading and other construction activities associated with the project would have the potential to impact soil erosion and increase sediment loads in stormwater runoff resulting from exposed or disturbed soil. Additionally, spills, leakage, or improper handling and storage of substances such as oils, fuels, chemicals, metals, and other substances used during various construction phases could be collected in stormwater runoff and impact water quality.

The City of Goleta's Stormwater Management Program protects water quality in accordance with the Regional Water Quality Control Board (RWQCB) pursuant to National Pollution Discharge Elimination System (NPDES) requirements (City of Goleta 2020). On-site construction activities would be subject to the NPDES Statewide General Construction Activity Stormwater permit, which would require visual monitoring of stormwater and non-stormwater discharges, sampling, analysis, and monitoring of non-visible pollutants; and compliance with applicable water quality standards established for receiving waters potentially affected by construction discharges. Additionally, construction site operators would be responsible for preparing and implementing a Stormwater Pollution Prevention Plan (SWPPP) which would outline project-specific Best Management Practices (BMPs) to control erosion, sediment release, and otherwise reduce the potential for discharge of pollutants in stormwater.

Implementation of construction BMPs would minimize surficial erosion and transport of pollutants and provide compliance with applicable NPDES requirements. In addition to the permit and SWPPP requirements, the project would comply with the City of Goleta Municipal Code Section 15.09.290, which requires an Erosion and Sediment Control Plan. The Plan would contain requirements of the City's BMPs for erosion and sediment control, which would prevent erosion and siltation in surface water runoff and in the storm drain system during site grading and soil disturbance activities. Compliance with existing regulations and implementation of construction BMP's would reduce potential construction impacts to water quality and discharge to a less than significant level.

Operation

Project operation could impact water quality from stormwater generated by impervious parking lots, rooftops, sidewalks, and paved areas on the project site, which could contain pollutants from automotive chemicals, trash, landscaping, and sediment. The project site is currently almost entirely impervious and developed with a warehouse structure, parking areas, storage area and vehicle yard, and general paving. The proposed project would generally replace existing parking lots and paved areas and result in a reduction of impervious areas on the project site with parking lot and site landscaping.

The project would be subject to The Central Coast Regional Water Quality Control Board's Central Coast Post Construction Requirements, which applies to all development projects resulting in 2,500 square feet or more of net impervious surface area (Central Coast Water Board 2013). In compliance

with the Central Coast Post Construction Requirements, the applicant would need to submit a complete Stormwater Control Plan, which would demonstrate adequate stormwater management features and facilities to treat and capture stormwater on-site. In addition, the Stormwater Control Plan would include an operation and maintenance plan which would identify the individuals responsible for maintenance of the stormwater control facilities. The Stormwater Control Plan would be reviewed and approved by the City of Goleta Engineering Department.

With compliance with all applicable regulations and measures, the project would not violate water quality standards or waste discharge requirements. Impacts would be less than significant and further analysis of these issues is not warranted.

a. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

LESS THAN SIGNIFICANT IMPACT

Water for the project would be provided by the Goleta Water District (GWD), which relies on four sources of water to meet its existing and future demands: (1) surface water via the Cachuma Project; (2) surface water from the State Water Project (SWP); (3) groundwater from the Goleta Groundwater Basin; and (4) recycled water (GWD 2017). The GWD operates under the Wright Judgment which prohibits over drafting of the Goleta Groundwater Basin (GGWB) and mandates the maintenance of the basin in a hydrologically balanced condition (Wright v. Goleta Water Dist. (1985) 174 Cal. App. 3d 74.).

The project would not involve on-site groundwater extraction that would result in substantial drawdown of an underlying aquifer. In addition, as discussed under Impact a, the project would not increase impervious surface cover on the project site beyond existing conditions and, therefore, would not interfere with groundwater recharge on the site. Therefore, the project would not substantially deplete groundwater supplies or interfere substantially with recharge or impede sustainable groundwater management of the basin. This impact would be less than significant and further analysis is not warranted.

c.i. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?

c.ii. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

c.iii. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

c.iv. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?

LESS THAN SIGNIFICANT IMPACT

The project site is not located in a flood zone, as discussed under Item d, and does not contain a river or stream which would be altered and result in flooding on- or off-site. Construction of the site would alter the existing drainage pattern of the site by removing the existing building and paved areas. However, compliance with NPDES requirements, implementation of a SWPPP BMPs, and an Erosion and Sediment Control Plan would prevent erosion or siltation on or off site and the transport of pollutants in runoff.

The project site currently contains impervious surfaces in the form of buildings, parking lots, and paved areas. Implementation of the project would not increase impervious surfaces which would increase surface runoff over existing conditions. In addition, the project would implement a Stormwater Control Plan which would demonstrate adequate stormwater management features and facilities to treat and capture stormwater on site. Therefore, implementation of the project would not impact the stormwater drainage systems in the area or result in additional polluted runoff. Due to the existing nature of the project site and compliance with existing regulations, impacts would be less than significant and further analysis is not warranted.

d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

NO IMPACT

According to the Federal Emergency Management Agency (FEMA) flood insurance rate maps, the project site is not located in a flood zone (FEMA 2019). According to Figure 5-2 of the City's General Plan/Coastal Land Use Plan, the project site is not located in a Tsunami Inundation Zone (Goleta 2016). In addition, the project site is not located near a large body of water with seiche hazards. Therefore, there would be no risk of release of pollutants due to inundation associated with a flood hazard, tsunami, or seiche and further analysis is not warranted.

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

NO IMPACT

As discussed in impact a, the project would not violate water quality standards or degrade water quality during construction or operation and, therefore, would not interfere with the implementation of the Basin Plan. The project is located within the GGWB, which currently is prioritized as very low (DWR 2020). Since the GGWB is designated as a low priority basin, a Groundwater Sustainability Plan (GSP) has not been prepared. Therefore, the project would not conflict with a water quality control plan of a sustainable groundwater management plan there for resulting in no impact.

11 Land Use and Planning

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	☐	☐	☐	■
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	■	☐

Analysis

a. Would the project physically divide an established community?

NO IMPACT

The project would not divide an established community. The project site is surrounded by a mix of office and light industrial development. The project would be located entirely within parcel currently developed by a warehouse. The provide would involve the relocation of the La Patera Lane bus turnaround approximately 50 feet to the south. This relocation would not impact the existing circulation network within the community. There would be no impacts and further analysis is not warranted.

b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

LESS THAN SIGNIFICANT IMPACT

The project does not involve any General Plan amendment or Specific Plan amendment and would not conflict with any adopted land use plan. The City of Goleta recently adopted the New Zoning Ordinance (NZO) in March of 2020 to implement the City's General Plan. According to Table 17.09.020, transportation terminals are an allowed use in the BP zone with the approval of a Major Conditional Use Permit. However, because the project is a City project, in the inland area, and outside of any identified Environmentally Sensitive Habitat Areas (ESHA), it is exempt from obtaining a Zoning Permit pursuant to 17.53.020(X)(1). The proposed use would not conflict with the I-BP Zoning District and the train depot would comply with all applicable site development standards and City regulations related to these standards. Deviations from standards would require the approval of a resolution by City Council based on the finding of good cause, pursuant to Table 2-3 of the General Plan/Coastal Land Use Plan (Goleta 2006a). The project site is not located within the local Coastal Zone and does not require a rezone that would conflict with the City's zoning ordinance. Impacts related to the Santa Barbara Municipal Airport ALUP are discussed in Section 8, *Hazards and Hazardous Materials*.

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12 Mineral Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	■
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	■

Analysis

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

b. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

The General Plan/Coastal Land Use Plan EIR indicates that there are no existing or planned surface mining operations within the City (Goleta 2006b). The Ellwood Oil Field is the only extractive industry with the City of Goleta, which is located in the Ellwood Mesa approximately 5 miles west of the project site. The Ellwood Oil Field would not be impacted by the project. Therefore, there would be no impacts and further analysis is not warranted.

NO IMPACT

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13 Noise

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	■	□	□	□
b. Generation of excessive groundborne vibration or groundborne noise levels?	■	□	□	□
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	□	□	■	□

Analysis

a. Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

POTENTIALLY SIGNIFICANT IMPACT

The project would generate noise during construction and operation of the train depot, which could result in temporary and permanent increases in noise levels in the surrounding vicinity. In addition, vibration during construction could impact nearby land uses and buildings, including the Daniel Hill Adobe. Therefore, impacts would be potentially significant and will be analyzed in an EIR.

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

LESS THAN SIGNIFICANT IMPACT

As discussed in Section 8, *Hazards and Hazardous Materials*, the project is located outside the Noise Exposure Range of the Santa Barbara Airport ALUP (SBCAG 1993). Therefore, the project would not expose people to excessive airport noise levels and further analysis is not warranted.

14 Population and Housing

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	■	☐
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	■

Analysis

a. Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

LESS THAN SIGNIFICANT IMPACT

The current population in Goleta is approximately 30,281 and is projected to be 33,900 by the year 2025 (U.S. Census Bureau 2019; Goleta 2006b). The proposed project would develop a new train depot adjacent to the existing Goleta Rail Station to serve existing riders and promote new ridership. The project would serve existing Goleta residents and residents throughout California using Amtrak's Pacific Surfliner rail service. Therefore, the project would not induce a substantial unplanned population growth in the area either directly or indirectly. Impacts would be less than significant and further analysis is not warranted.

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

NO IMPACT

The project site is currently occupied by a warehouse that is primarily unoccupied/vacant, with a small portion used by the Food Bank for storage. The site does not contain residential units or people. Consequently, there would be no displacement of housing or people. Therefore, there would be no impact and further analysis is not warranted.

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15 Public Services

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a.	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
	1 Fire protection?	☐	☐	■	☐
	2 Police protection?	☐	☐	■	☐
	3 Schools?	☐	☐	☐	■
	4 Parks?	☐	☐	☐	■
	5 Other public facilities?	☐	☐	☐	■

Analysis

a.1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

a.2. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

LESS THAN SIGNIFICANT IMPACT

Fire services would be provided by Santa Barbara County Fire Department (SBCFD), and police protection services would be provided by the Santa Barbara County Sheriff's Office under contract to the City (Goleta Police Department (GPD)). The closest fire station to the project site is Santa Barbara County Fire Station 14 located at 320 N. Los Carneros Road, 0.7 mile northwest from the

project site, adjacent to Los Carneros Park. The closest police station is 3.8 miles east from the project site, located at 4434 Calle Real in the unincorporated County of Santa Barbara.

The project would construct a new train depot on a site currently occupied by a warehouse structure. The project site is located in an urban area of the City which is developed with office and light industrial uses and is currently served by fire and police services. Therefore, the new train depot would not exceed the capacity of the SBCFD or GPD to provide protective services or result in the need for new or expanded fire or police facilities; therefore, impacts would be less than significant and further analysis is not warranted.

a.3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

NO IMPACT

The project would develop a new train depot adjacent to the existing Goleta Rail Station to serve existing Goleta residents and residents throughout California. The project would not result in direct or indirect population growth, as discussed in Section 12, *Population and Housing*. Therefore, the proposed project would not result in additional enrollment of school aged children in either Goleta Union or Santa Barbara Unified School Districts and would not result in the need for new or physically altered schools. The project would have no impacts and further analysis is not warranted.

a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered parks, or the need for new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

NO IMPACT

As discussion above under Impact a.3 and a.4, the project would develop a new train depot to serve train riders and would not directly or indirectly result in an increase in growth in the City. Therefore, the project would not generate an increased demand for parks or other public facilities. The project would have no impacts and further analysis is not warranted.

a.5. Would the project result in substantial adverse physical impacts associated with the provision of other new or physically altered public facilities, or the need for other new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

NO IMPACT

As discussion above under Impact a.3 and a.4, the project would develop a new train depot to serve train riders and would not directly or indirectly result in an increase in growth in the City. Therefore, the project would not generate an increased demand for parks or other public facilities. The project would have no impacts and further analysis is not warranted.

16 Recreation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	■
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	■

Analysis

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

NO IMPACT

The project would develop a new train depot adjacent to an existing Amtrak platform to serve existing train users and promote more people using Amtrak's train services. As discussed in Section 13, *Population and Housing*, the project would not result in a direct or indirect increase in population growth and, therefore, would not increase the use of recreational facilities in the City nor require the construction or expansion of recreational facilities. Therefore, no impacts associated with the construction of recreational facilities would occur and further analysis is not warranted.

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17 Transportation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	■	□	□	□
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	■	□	□	□
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	■	■	□	□
d. Result in inadequate emergency access?	■	□	□	□

Analysis

a. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

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

d. Would the project result in inadequate emergency access?

POTENTIALLY SIGNIFICANT IMPACT

The proposed project could generate traffic that would impact the circulation system in the area. In addition, a new train depot could place Pacific Surfliner passengers accessing the depot at risk with vehicles and buses. Impacts are potentially significant and will be analyzed in an EIR.

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18 Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	■	□	□	□
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	■	□	□	□

Analysis

a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?

b. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?

POTENTIALLY SIGNIFICANT IMPACT

Based on the positive results of the SLF search coupled with the ethnographic settlement patterns of the Chumash, the area is considered sensitive for tribal cultural resources (Appendix B). Therefore, impacts are potentially significant and will be analyzed in an EIR.

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19 Utilities and Service Systems

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	■	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	■	☐	☐	☐
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	■	☐
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	■	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	■	☐

Analysis

a. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

LESS THAN SIGNIFICANT IMPACT

The project site is currently served by water, wastewater, stormwater, electric, gas, and telecommunication facilities. The project may require minor relocations or improvements of utilities to serve the project, but these would occur within the footprint of existing onsite development and

are included in the environmental analysis herein. Therefore, the project would not require relocation of utilities which would create significant environmental effects. Impacts would be less than significant and further analysis is not warranted.

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

POTENTIALLY SIGNIFICANT IMPACT

The project site is served by the Goleta Water District (GWD), which services approximately 87,000 people through approximately 270 miles of pipeline. The GWD obtains its water supplies from four primary sources including Lake Cachuma, the Goleta Groundwater Basin, Goleta Sanitary District, and the import of State Water Project (SWP) water. According to the GWD 2015 Urban Water Management Plan (UWMP), the District has adequate water supplies to serve its users through 2035 under normal, dry, and multiple-dry years (GWD 2017).

In 1991 voters of the Goleta Water District passed the SAFE Water Supplies Ordinance, which sets forth the following conditions the District must meet in order to approve new or additional water connections.

1. The District is receiving 100 percent of its deliveries normally allowed from Lake Cachuma;
2. The District has met legal obligations in the Wright Judgement;
3. There is no water rationing; and
4. The District has met its obligations to the Annual Storage Commitment to the Drought Buffer.

The District is currently not meeting all of the above conditions needed in order to approve new or additional water connections. Pursuant to the SAFE Water Supplies Ordinance, the District was directed to deny applications for new water service allocations unless the project falls within certain exceptions. Because the District is not meeting all of the conditions in the SAFE Water Supply Ordinance, impacts to water supplies would be potentially significant and will be discussed in the EIR.

c. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

LESS THAN SIGNIFICANT IMPACT

Wastewater from the project would be collected and treated by the Goleta Sanitary District (GSD), which services approximately 80,000 people. The GSD operates the Goleta Wastewater Treatment Plant, which has a maximum capacity of 9.7 million gallons per day (MGD) based on the average daily flow rate. However, the discharge is restricted under the facility's NPDES Order R3-2017-0021 permit CA0048160 to an average daily dry weather flow of 7.64 MGD (Central Coast RWQCB 2017). Current average daily dry weather flows are approximately 4.8 MGD (GSD 2018).

The project site is within the District's service area and is currently served by GSD for wastewater produced by the existing warehouse. The development of a 9,000 square-foot train depot would not increase wastewater production compared to existing conditions from a 39,800 square-foot warehouse. In addition, there is adequate capacity at the wastewater treatment plant to handle additional flows if necessary. Impacts would be less than significant and further analysis is not warranted.

d. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

LESS THAN SIGNIFICANT IMPACT

Waste generated within the City is handled at the South Coast Recycling and Transfer Station, where recyclable and organic materials are sorted. The remaining solid waste is disposed of at the Tajiguas Landfill, which is owned by the County of Santa Barbara. Waste collection and disposal services are provided by Marborg Industries in the City of Goleta. The Tajiguas Landfill has a maximum permitted capacity of 23.3 million cubic yards and a maximum daily capacity of 1,500 tons per day (CalRecycle 2019a). According to the 5 Year Permit Review of the landfill, average daily waste flows are approximately 806 tons, which remains well within their 1,500 daily ton limit (CalRecycle 2015). According to the City's adopted CEQA Thresholds Manual, a project specific impact threshold is 196 tons of solid waste per year.

Construction of the project would generate construction waste during the demolition of the existing warehouse structure and development of the new train depot. Construction waste would comply with CalGreen Construction and Demolition (C&D) Debris Recycling Requirements, which required the diversion of 65 percent of construction waste. In addition, waste from construction activities would be temporary. Waste generation rates for transportation uses in the CEQA Thresholds Manual is 0.0026 tons per square foot. Using this, operation of the train depot would produce 23 tons of solid waste per year, which is below the adopted threshold. Due to the available capacity at the Tajiguas Landfill and because project waste generation would be below established thresholds, impacts would be less than significant and further analysis is not warranted.

e. Would the project comply with federal, state, and local management and reduction statues and regulations related to solid waste?

LESS THAN SIGNIFICANT IMPACT

Construction of the proposed project would comply with CalGreen and be required to divert 65 percent of the waste generated during construction. According to the California Department of Resources Recycling and Recovery (CalRecycle), the City, which is a part of the Santa Barbara Regional Integrated Waste Management Reporting Authority, is meeting its waste disposal requirements under AB 939 (CalRecycle 2019b). The project is a City project and would be required to comply with applicable solid waste diversion programs and state reduction statutes. Therefore, impacts would be less than significant and further analysis is not warranted.

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20 Wildfire

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	■
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	■
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	■
d. Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	■

Analysis

a. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

b. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

c. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

d. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

NO IMPACT

While the project site is located approximately 0.9 mile southwest of a high fire severity zone, it is not within a fire hazard zone (Calfire 2019). The project site is located in an incorporated area of local responsibility (Calfire 2007). The project site is located within an urbanized area of the City of Goleta and is surrounded by existing development. Therefore, the project would not expose people or structures to a significant risk involving wildland fires or worsen the risk of wildfire and there would be no impact.

21 Mandatory Findings of Significance

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Does the project:				
a. Have the potential to substantially 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, substantially 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)?	■	☐	☐	☐
c. Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	■	☐	☐	☐

Analysis

a. Does the project have the potential to substantially 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, substantially 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?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

As discussed throughout this Initial Study, implementation of the project would not substantially degrade the quality of the environment and would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, or threaten to eliminate a plant or animal community. As addressed in Section 4, *Biological Resources,* the

project site is currently developed and does not contain known sensitive species or animal communities. Implementation of Mitigation Measure BIO-1 and BIO-2 would reduce potential impacts to roosting bats and nesting birds. Cultural resources, which illustrate examples of California history and prehistory, are discussed in Section 5, *Cultural Resources.* The project site does not contain any known historical or pre-historical resources. However, there is the potential for unknown resources to be impacted during ground disturbing activities. Implementation of Mitigation Measure CR-1 would reduce potential impacts. Potentially significant impacts would be reduced to less than significant levels with the incorporation of mitigation.

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

POTENTIALLY SIGNIFICANT IMPACT

Certain environmental issue areas (e.g., Geology/Soils, Wildfire) are by their nature project-specific and impacts at one location do not add to impacts at other locations or create additive impacts. The project was determined to have no impacts on agricultural and mineral resources and recreation in the City. In addition, the project would not lead to unplanned growth in the City and is currently serve by police and fire services. Therefore, the project would not create any cumulatively considerable impact on public services. As discussed in Section 10, *Hydrology and Water Quality*, the project would comply with all applicable regulations governing water quality, would capture stormwater on-site, and would reduce impervious surfaces over existing conditions.

As described in the discussion of Environmental Checklist Sections 1 through 20, the proposed project has potentially significant impacts requiring further analysis in an EIR for the following environmental issues: air quality, energy, greenhouse gas emissions, hazards and hazardous materials, noise, transportation, and tribal cultural resources. Therefore, the potential cumulative impacts of these environmental issues may also be potentially significant and will be further analyzed in an EIR.

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

POTENTIALLY SIGNIFICANT IMPACT

In general, impacts to human beings are related to air quality, geology and soils, hazards and hazardous materials, noise, and traffic. As detailed in the environmental checklist portion of this Initial Study, the project would not have a significant impact on geology and soils. However, the project would have potential impacts to air quality, hazards and hazardous materials, noise, and traffic and, therefore, would have the potential to cause substantial adverse effects, directly or indirectly, on human beings. Therefore, these issues are potentially significant and will be further addressed in an EIR.

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List of Preparers

Rincon Consultants, Inc. prepared this Initial Study under contract to the City of Goleta. Persons involved in data gathering analysis, project management, and quality control are listed below.

RINCON CONSULTANTS, INC.

Richard Daulton, Principal in Charge
Brenna Weatherby, Project Manager
Ryan Russell, Assistant Project Manager
Jenna Shaw, Environmental Planner
Virginia Dussell, Planning Intern

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Appendix A

Biological Resources Assessment

Rincon Consultants, Inc.
209 East Victoria Street
Santa Barbara, California 93101
805 319 4092 OFFICE AND FAX
info@rinconconsultants.com
www.rinconconsultants.com

January 15, 2020
Project No: 19-07186

Gerald Comati
Public Works Department
130 Cremona Drive, Suite B
Goleta, CA 93117
Via email: gcomati@cityofgoleta.org

Subject: Biological Resources Assessment for the Goleta Train Depot Project, Goleta, California

Dear Mr. Comati,

Rincon Consultants, Inc. (Rincon) is pleased to submit this Biological Resources Assessment (BRA) for the Goleta Train Depot Project located at 27 South La Patera Lane in Goleta, California. The purpose of the BRA is to address the potential for sensitive biological resources and rare, threatened, and endangered species to occur at the project site or be affected by the proposed construction activities. Project impacts, relevant regulations, and proposed mitigation measures are discussed in accordance with the California Environmental Quality Act (CEQA) and anticipated environmental review of the project.

Project Description and Location

The proposed project would occur at 27 South La Patera Lane, Goleta, California (Figure 1). The project site is located in Township 5 north, Range 30 west (San Bernardino meridian), and is depicted on the *Goleta* Geological Survey 7.5-minute quadrangle map (USGS 2019). The project site encompasses approximately 2.8 acres. It includes Assessor Parcel Number (APN) 073-050-033, situated immediately south of the Amtrak railroad and west of South La Patera Lane (Figure 2), and the adjacent portion of South La Patera Lane within the City of Goleta right-of-way. The project site is located outside the coastal zone in an area zoned by the City of Goleta as Business Park. The land surrounding the project site to the south, east, and west is densely developed for commercial and industrial uses. There is undeveloped open space north of the project site at Lake Los Carneros Park, on the opposite side of the railroad and U.S. Highway 101.

The proposed project involves demolition of an existing warehouse, construction of an approximately 8,000-square-foot train depot building, and development of paved parking areas throughout the remainder of the project site. The train depot would provide passengers with a ticketing area, waiting room, baggage lockers, restrooms, and a café. The parking areas would accommodate approximately 128 vehicles and facilitate access to the depot by buses and shuttles. The proposed project would also involve re-engineering a cul-de-sac, installing new sidewalks, and improving drainage infrastructure associated with South La Patera Lane.

Figure 1 Regional Location



Imagery provided by Esri and its licensors © 2019.

Project Location

N

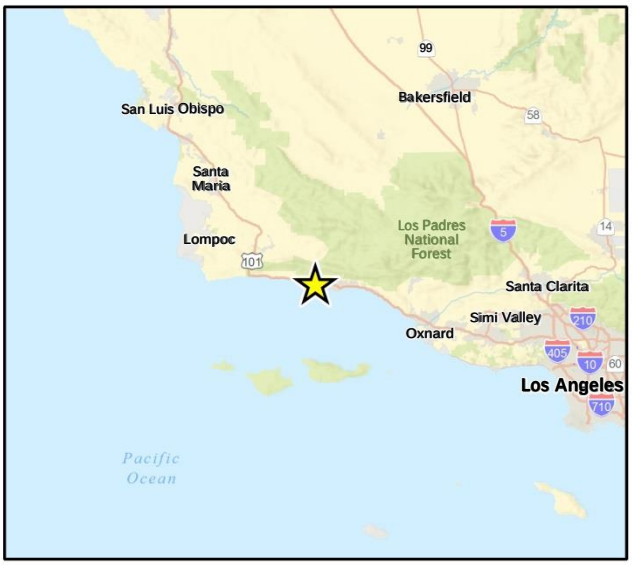


Figure 2 Project Location



Methodology

Regulatory Overview

Regulated or sensitive resources studied and analyzed herein include special-status plant and wildlife species, nesting birds and raptors, sensitive plant communities, jurisdictional waters and wetlands, wildlife movement, and locally protected resources such as protected trees. For the purpose of this report, the evaluation of potential impacts to biological resources was guided by the following statutes:

Federal

- Federal Endangered Species Act (ESA)
- Federal Clean Water Act (CWA)
- Migratory Bird Treaty Act (MBTA)
- The Bald and Golden Eagle Protection Act

State

- California Environmental Quality Act (CEQA)
- California Endangered Species Act (CESA)
- California Fish and Game Code (CFGC)
- Porter-Cologne Water Quality Control Act

Local

- City of Goleta General Plan
- Goleta Municipal Code
- City of Goleta Environmental Thresholds and Guidance Manual

Literature Review

Prior to the field reconnaissance survey, Rincon biologist Nathan Marcy reviewed the project plans (provided by the client), aerial photographs, and previous historical land use of the survey area. Queries of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) (CDFW 2019) and the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants (CNPS 2019) were conducted to obtain comprehensive information regarding state and federally listed species as well as other special-status species considered to have potential to occur within a 5-mile radius of the project site. For CNPS query purposes, a 9-quadrangle search area centered on the project site was used.

In addition, regionally occurring sensitive biological resources and geological information related to the site were researched from the following sources:

- USFWS Critical Habitat Portal (U.S. Fish and Wildlife Service [USFWS] 2019a)
- USFWS Information, Planning, and Conservation System (USFWS 2019b)
- USFWS National Wetland Inventory (NWI) Mapper (USFWS 2019c)
- Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2019)

Field Survey

A field reconnaissance survey was conducted by Rincon biologist Yuling Huo on December 19, 2019, to document the existing site conditions and to evaluate the potential presence of sensitive biological resources including special-status plant and animal species, sensitive plant communities, potentially jurisdictional waters of the U.S. and wetlands, and habitat for federally and state protected species. Weather conditions during the survey included an average temperature of approximately 50 degrees Fahrenheit, calm winds up to three miles per hour, and clear skies with good visibility. The study area included the project site plus a 100-foot survey buffer (Figure 2). Accessible portions of the study area were surveyed on foot and inaccessible areas were observed remotely with 10x30 binoculars.

All biological resources observed within the study area were recorded, including plant and wildlife species. Plant species nomenclature and taxonomy follows *The Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin et al. 2012). All species were identified to the lowest feasible taxonomic level based on field observations. Definitive surveys to confirm the presence or absence of special-status species were not performed and are not included within this analysis. The findings and opinions conveyed in this report are based exclusively on the methodology described above.

Existing Conditions

Soils

The study area contains only one soil type: Milpitas-Positas fine sandy loams, 2 to 9 percent slopes (NRCS 2019). Nearly the entire project site is developed or paved with asphalt or concrete. Soil is only present at the surface in small areas of ornamental vegetation. Milpitas-Positas fine sandy loam is not listed as a hydric soil.

Vegetation

Two vegetation communities occur within the study area: Disturbed and Developed (Figure 3). The vegetation classification used for this analysis is based on Sawyer et al. (2009), but modified as needed to most accurately describe the existing vegetation communities on-site. A total of 19 plant species were identified in the study area during the survey (Table 1). The observed plants, both native and non-native, are mostly planted in landscaping areas.

Developed

Developed land includes areas that have been constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported. It is characterized by permanent or semi-permanent structures, pavement or hardscape, and landscaped areas that often require irrigation.

Approximately one acre of the 2.5-acre project site is occupied by an existing warehouse building. The remainder is paved with asphalt or concrete, with the exception of two small areas of ornamental vegetation at the southeast corner of the project site. The study area surrounding the project site is also predominantly developed, consisting of commercial and industrial buildings, paved roads and parking areas, the railroad, and ornamental vegetation. Some native plants have colonized small, unpaved areas. Three native coast live oaks (*Quercus agrifolia*) and one native California black walnut (*Juglans californica*) are present in the study area. These trees are isolated from each other, and may predate development of the site, or have been planted during landscaping, or have established naturally after development.

Disturbed

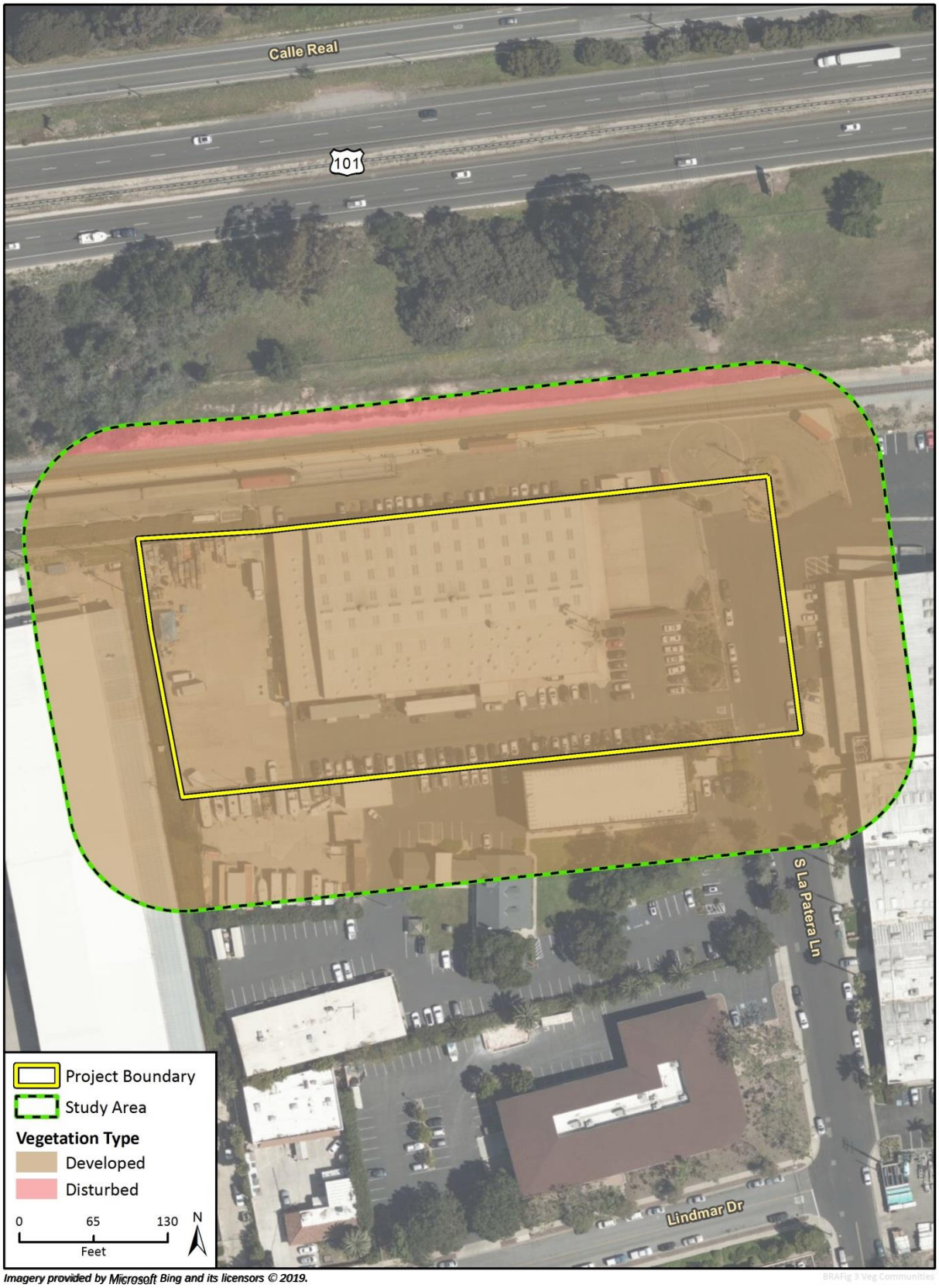
Disturbed habitats have been physically disturbed by previous legal human activity. They are no longer recognizable as a native or naturalized vegetation association but continue to retain a soil substrate. Vegetation of disturbed areas, if present, is typically composed of non-native plant species such as landscape ornamentals or ruderal exotics that take advantage of disturbance and inhibit the growth of native plants.

No disturbed vegetation is present in the project site. A narrow strip of this vegetation type is present at the northern margin of the study area on the opposite side of the railroad. A review of aerial imagery indicates that this area is regularly mowed or disked. The vegetation observed during the survey was ruderal and composed primarily of non-native grasses and weeds.

Table 1 Plant Species Observed During December 19, 2019 Field Reconnaissance Survey

Scientific Name	Common Name	Native or Non-native
Aloe sp.	Aloe	Non-native
Araucaria heterophylla	Norfolk Island pine	Non-native
Cedrus deodara	deodar cedar	Non-native
Cercis occidentalis	western redbud	Native
Cercocarpus betuloides	mountain mahogany	Native
Distictis sp.	royal trumpet vine	Non-native
Equisetum hyemale	scouringrush horsetail	Native
Erigeron canadensis	Canada horseweed	Native
Eucalyptus camaldulensis	red river gum	Non-native
Geranium sp.	geranium	Non-native
Heteromeles arbutifolia	Toyon	Native
Juglans californica	California black walnut	Native
Juniperus californica	California juniper	Native
Juniperus chinensis	Chinese juniper	Non-native
Muhlenbergia rigens	deergrass	Native
Pinus canariensis	Canary Island pine	Non-native
Pittosporum sp.	mock orange	Non-native
Quercus agrifolia	coast live oak	Native
Tagetes erecta	Mexican marigold	Non-native

Figure 3 Vegetation Communities



Wildlife

The study area provides little habitat for wildlife species due to its developed nature and the lack of native vegetation. Avian species observed in the study area during the survey are included in Table 2. No other wildlife species were observed.

Table 2 Avian Species Observed During December 19, 2019 Field Reconnaissance Survey

Scientific Name	Common Name	Native or Non-native
Aphelocoma californica	California scrub jay	Native
Corvus brachyrhynchos	American crow	Native
Haemorhous mexicanus	house finch	Native
Larus occidentalis	western gull	Native
Melospiza melodia	song sparrow	Native
Mimus polyglottos	northern mockingbird	Native
Passer domesticus	house sparrow	Non-native
Sayornis nigricans	black phoebe	Native
Setophaga coronate	yellow-rumped warbler	Native
Setophaga petechial	yellow warbler	Native
Setophaga townsendi	Townsend's warbler	Native
Spinus psaltria	Lesser goldfinch	Native
Sturnus vulgaris	European starling	Non-native
Tyrannus vociferans	Cassin's kingbird	Native
Zenaida macroura	mourning dove	Native
Zonotrichia leucophrys	white-crowned sparrow	Native

Sensitive Biological Resources and Impact Analysis

Special-Status Species

Special-status species are those plants and animals listed, proposed for listing, or candidates for listing as Threatened or Endangered by the USFWS under the Federal ESA; those listed or candidates for listing as Rare, Threatened, or Endangered by the CDFW under the CESA or Native Plant Protection Act; animals designated as "Fully Protected" by the CFGC; animals listed as "Species of Special Concern" (SSC) by the CDFW; CDFW Special Plants, specifically those with California Rare Plant Ranks (CRPR) of 1B, 2, 3, and 4 in the CNPS's Inventory of Rare and Endangered Vascular Plants of California (2018).

Local, state, and federal agencies regulate special-status species and may require an assessment of their presence or potential presence to be conducted on site prior to the approval of proposed development on a property. This section discusses sensitive biological resources observed on the project site and evaluates the potential for the project site to support other sensitive biological resources. A list of special-status plant and animal species with potential to occur in the study area was developed based on a review of a 5-mile search of the CNDDB (CDFW 2019) and a 9-quad search of the CNPS's online Inventory of Rare and Endangered Vascular Plants of California (CNPS 2019) and can be found in Attachment A.

Pursuant to Appendix G of the CEQA Guidelines, the proposed project would have a significant effect on biological resources if it would:

a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.*

In addition to the CEQA Guidelines, the City of Goleta Environmental Thresholds and Guidance Manual defines a significant impact to biological resources as one that:

a) *Substantially reduce or eliminate species diversity or abundance*

b) *Substantially reduce or eliminate quantity or quality of nesting areas*

c) *Substantially limit reproductive capacity through losses of individuals or habitat*

d) *Substantially fragment, eliminate, or otherwise disrupt foraging areas and/or access to food sources*

e) *Substantially limit or fragment range and movement (geographic distribution of animals and or seed dispersal routes)*

f) *Substantially interfere with natural processes, such as fire or flooding, upon which the habitat depends*

The CNDDB/CNPS query results identified 17 special-status plant species within five miles of the study area. Special-status plant species typically have specialized habitat requirements, including plant community types, soils, elevational ranges. No habitat for any of these plant species exists at the project site, and none have any potential to occur there. One small California black walnut tree, a CRPR 4.2 species, was observed in the study area outside of the project site. No other special-status plant species were observed during the survey.

The CNDDB query results identified 25 special-status wildlife species within five miles of the study area. The potential for special-status wildlife species to occur at the site was assessed based on their known distribution and habitat requirements and the existing conditions of the site. No special-status wildlife species were detected during the survey, and most were determined to have no potential to occur due to the developed and disturbed condition of the study area, high levels of human disturbance, absence of native vegetation or aquatic habitat, and isolation from suitable habitat in the surrounding landscape. No critical habitat designated by USFWS is present in the study area. The closest critical habitat, for tidewater goby (*Eucyclogobius newberryi*), is located approximately 0.45 mile southwest of the study area (USFWS 2019a).

Roosting Bats

The only special-status wildlife species found to have potential to occur in the study area are three species of bats, all CDFW Species of Special Concern: Townsend's big-eared bat (*Corynorhinus townsendii*), western mastiff bat (*Eumops perotis californicus*), and Yuma myotis (*Myotis yumanensis*). The empty warehouse building in the project site may provide suitable roosting locations for these species, given the presence of potential foraging habitat in nearby Lake Los Carneros Park. Bats are particularly vulnerable to disturbance during the breeding season (typically April 1 through August 31), when young may be present that are not able to fly. If maternal roosts of special-status bats are present in structures when demolition occurs, it may represent a significant impact. The impact would be reduced below a significant level through implementation of Mitigation Measure BIO-1, described below.

Nesting Birds

Migratory or other common nesting birds, while not designated as special-status species, are protected by the CFGC and MBTA. Ornamental trees and shrubs and man-made structures in the study area could provide habitat for nesting birds. The survey was conducted outside of the bird nesting season (typically February 1 through August 31), and no nests or birds exhibiting nesting behaviors were observed. However, if project activities occur during the nesting season, nesting birds may be impacted. The potential impact would be reduced below a significant level through implementation of Mitigation Measure BIO-2, described below.

Sensitive Plant Communities

Pursuant to Appendix G of the CEQA Guidelines, the proposed project would have a significant effect on biological resources if it would:

b) Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS.

No riparian or other sensitive vegetation communities are present in the study area, and the project would have no effect on these resources.

Jurisdictional Wetlands and Waterways

Pursuant to Appendix G of the CEQA Guidelines, the proposed project would have a significant effect on biological resources if it would:

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

No potentially jurisdictional wetlands or waterways were observed in the study area. The nearest wetland habitat identified by NWI is located approximately 400 feet north of the study area on the opposite side of the railroad and Highway 101 (USFWS 2019c). The project would have no impact on state or federally protected wetlands.

Wildlife Movement

Pursuant to Appendix G of the CEQA Guidelines, the proposed project would have a significant effect on biological resources if it would:

d) Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites.

Wildlife corridors are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as between foraging and breeding areas, or they may be regional in nature, allowing movement across the landscape. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then return. Examples of barriers or impediments to movement include housing and other urban development, roads, fencing, unsuitable habitat, or open areas with little vegetative cover. Regional and local wildlife movements are expected to be concentrated near topographic features that allow convenient passage, including roads, drainages, and ridgelines.

The study area is not in an area identified as a wildlife corridor. The potential movement of wildlife through the study area is minimal given the densely developed nature of the site and adjacent properties to the south, east, and west. Although open space is present north of the study area, the intervening railroad and Highway 101 represent substantial barriers to wildlife movement. The proposed project would not impede wildlife movement beyond the existing conditions.

Local Policies and Ordinances

Pursuant to Appendix G of the CEQA Guidelines, the proposed project would have a significant effect on biological resources if it would:

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Environmentally Sensitive Habitat Areas

Under Policy CE 1 of the City of Goleta General Plan/Coastal Land Use Plan (GP/CLUP), all Environmentally Sensitive Habitat Areas (ESHA) identified in Figure 4-1 of the GP/CLUP shall be protected against significant degradation of habitat value (City of Goleta 2006). New development shall be sited and designed to avoid impacts to ESHA. If no feasible alternative can eliminate all impacts, the alternative that would result in the fewest or least significant impacts shall be selected. Any impacts that cannot be avoided shall be fully mitigated, with priority given to on-site mitigation.

No ESHA identified in Figure 4-1 of the Goleta GP/CLUP are present in the study area.

Protected Trees

There is currently no Tree Protection Ordinance in place in the City of Goleta. Protection of trees in the City is regulated by the Conservation Element 9 (CE 9) of the Goleta GP/CLUP, which states that all native tree species are protected. However, the Grading Ordinance Guidelines for Native Oak Tree Removal in the Goleta Municipal Code (City of Goleta 2019) clarifies that coast live oak trees are protected only when they have a diameter at breast height (DBH) of eight inches or greater, and that no trees voluntarily planted during landscaping are protected.

Several native coast live oak and California black walnut trees were observed in the study area. Only one, a coast live oak, is present in the project site where it might be removed or otherwise impacted by project activities. This tree has a DBH of approximately two inches and was evidently planted during landscaping. Per the Goleta Municipal Code, no protected trees are present in the project site.

Adopted or Approved Plans

Pursuant to Appendix G of the CEQA Guidelines, the proposed project would have a significant effect on biological resources if it would:

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan.

The study area is not subject to any Habitat Conservation Plan, Natural Conservation Community Plan, or other local, regional, or state habitat conservation plan.

Mitigation Measures

BIO-1: Pre-construction Roosting Bat Surveys

- To avoid disturbance of maternal bat roosts, demolition of the warehouse building and any other structures that may support roosting bats shall be conducted outside of the bat breeding season (typically April 1 through August 31), if feasible.
- No more than 30 days prior to initiation of project activities, a qualified biologist shall conduct presence/absence surveys for bats where suitable roosting habitat is present. Surveys shall be conducted using acoustic detectors and by visually searching ledges, crevices, and overhangs in the warehouse and any other locations in the study area where bats may roost.
- If a maternal roost is detected, project activity shall cease. CDFW shall be consulted to determine if protective buffers may be established surrounding the roost, allowing project activities to resume in other parts of the project site. Demolition of a structure supporting a maternal roost shall not occur until the young have left the site. If a non-breeding roost is detected, CDFW shall be consulted to determine if the bats can be safely evicted.
- If no roosting bats are observed during pre-construction surveys, no further actions would be necessary.

BIO-2: Pre-construction Nesting Bird Surveys

- To avoid disturbance of nesting and special-status birds, including raptor species protected by the MBTA and CFGC, project activities including vegetation removal, ground disturbance, construction, and demolition shall occur outside of the bird breeding season (February 1 through August 31), if feasible.
- If work must begin during the breeding season, a pre-construction nesting bird survey shall be conducted no more than seven days prior to initiation of project activities. The nesting bird survey shall be conducted inside the project footprint plus a 500-foot for raptors and special-status species and a 300-foot buffer for all other birds. Inaccessible parts of the survey area shall be scanned using binoculars to ensure 100 percent visual coverage. The survey shall be conducted by a biologist familiar with the identification of bird species known to occur in southern California communities.
- If active nests (those containing eggs, nestlings, or associated with dependent fledglings) are found on-site, an avoidance buffer shall be implemented around each nest and demarcated with fencing or flagging. The size of the buffers shall be determined by the biologist based upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site. No project activity shall occur inside a nest buffer until the biologist determines that the nest is no longer active.
- If no nesting birds are observed during pre-construction surveys, no further actions would be necessary.

Limitations

This document was prepared for use solely and exclusively by the City of Goleta, care of Gerald Comati, who may use it to provide information to satisfy CEQA requirements. No other use or disclosure is intended or authorized by Rincon, nor shall this report be relied upon or transferred to any other party

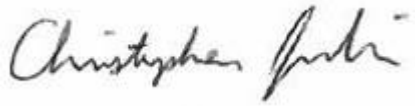
without the express written consent of Rincon Consultants. This work has been performed in accordance with good commercial, customary, and generally accepted biological investigation practices conducted at this time and in this geographic area. The findings and opinions conveyed in this report are based on a suitability analysis level only and did not include definitive surveys for the presence or absence of the special-status species that may be present. Definitive surveys for special-status wildlife and plant species generally require specific survey protocols requiring extensive field survey time to be conducted only at certain times of the year. The findings and opinions conveyed in this report are based on this methodology. It is understood that Rincon is to be held harmless for any inverse condemnation or devaluation of said property that may result if Rincon's report or information generated during our performance of services is used for other purposes.

Thank you for the opportunity to support your environmental analysis needs for this project. Please contact us if you have any questions.

Sincerely,
Rincon Consultants, Inc.



Nathan Marcy
Associate Biologist



Christopher Julian
Principal/Senior Regulatory Specialist

Attachments

Attachment A CNDDB/CNPS Query Results and Occurrence Potentials
Attachment B Site Survey Photographs

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Attachment A

CNDDB/CNPS Query Results and Occurrence Potentials

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Plants				
Anomobryum julaceum slender silver moss	None/None 4.2	Broadleafed upland forest, lower montane coniferous forest, and north coast coniferous forest. Grows on damp rocks and soil, acidic substrates. Usually seen on roadcuts. Elevations between 300 and 3,300 feet.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Arctostaphylos refugioensis Refugio manzanita	None/None 1B.2	Chaparral, on sandstone. Elevations between 200 and 2,500 feet.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Atriplex coulteri Coulter's saltbush	None/None 1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, and valley and foothill grassland. Ocean bluffs, ridgetops, as well as alkaline low places. Alkaline or clay soils. Elevations between sea level and 1,500 feet.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Atriplex serenana var. *davidsonii* Davidson's saltscale	None/None 1B.2	Coastal bluffs and coastal scrub. Alkaline soil. Elevations between sea level and 1,500 feet.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Calochortus fimbriatus late-flowered mariposa-lily	None/None 1B.3	Dry, open coastal woodland, riparian woodland, and chaparral. Serpentine soils. Elevations between 900 and 4,700 feet.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Centromadia parryi ssp. *australis* southern tarplant	None/None 1B.1	Marshes and swamp margins, valley and foothill grassland, and vernal pools. Often in disturbed sites near the coast. Also in alkaline soils, sometimes with saltgrass. Elevations between sea level and 3,200 feet.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Fritillaria ojaiensis Ojai fritillary	None/None 1B.2	Broadleafed upland mesic forest, lower montane coniferous forest, and chaparral. Usually on loamy soil, sometimes serpentine. Sometimes found along roadsides. Elevations between 300 and 3,700 feet.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Horkelia cuneata var. *puberula* mesa horkelia	None/None 1B.1	Chaparral, cismontane woodland, and coastal scrub. Sandy or gravelly sites. Elevations between 50 and 5,400 feet.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Juncus luciensis Santa Lucia dwarf rush	None/None 1B.2	Vernal pools, wet meadows, seeps, and ephemeral drainages in lower montane coniferous forest, chaparral, and Great Basin scrub. Elevations between 1,000 and 6,700 feet.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Lasthenia conjugens Contra Costa goldfields	Endangered/ None 1B.1	Vernal pools, swales, and low depressions in valley and foothill grassland, cismontane woodland, and alkaline playas. Elevations between sea level and 1,500 feet.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Lasthenia glabrata ssp. *coulteri* Coulter's goldfields	None/None 1B.1	Coastal salt marshes, playas, and vernal pools, usually on alkaline soils. Elevations between sea level and 4,500 feet.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Layia heterotricha pale-yellow layia	None/None 1B.1	Cismontane woodland, pinyon and juniper woodland, coastal scrub, and valley and foothill grassland. Alkaline or clay soils in open areas. Elevations between 300 and 5,900 feet.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Lonicera subspicata var. *subspicata* Santa Barbara honeysuckle	None/None 1B.2	Chaparral, cismontane woodland, and coastal scrub. Elevations between 20 and 2,700 feet.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Scrophularia atrata black-flowered figwort	None/None 1B.2	Closed-cone coniferous forest, chaparral, coastal dunes, coastal scrub, and riparian scrub. Around swales and dunes in sand, diatomaceous shales, and soils derived from other parent material. Elevations between 30 and 1,500 feet.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Suaeda esteroa estuary seablite	None/None 1B.2	Coastal marshes and swamps in clay, silt, and sand substrates. Elevations between sea level and 150 feet.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Thelypteris puberula var. *sonorensis* Sonoran maiden fern	None/None 2B.2	Meadows, seeps, and along streams. Elevations between 200 and 3,000 feet.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Thermopsis macrophylla Santa Ynez false lupine	None/Rare 1B.3	Chaparral. Open areas, such as fuel breaks and burned areas, on sandstone. Elevations between 1,200 and 3,500 feet.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Invertebrates				

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Bombus crotchii crotch bumble bee	None/Candidate Endangered	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include *Antirrhinum*, *Phacelia*, *Clarkia*, *Dendromecon*, *Eschscholzia*, and *Eriogonum*.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Danaus plexippus pop. 1 monarch - California overwintering population	None/None	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	Not Expected	Although roosting sites are documented nearby, no suitable overwintering habitat exists at the project site.
Fish				
Eucyclogobius newberryi tidewater goby	Endangered/ None SSC	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches. Needs fairly still but not stagnant water and high oxygen levels.	Not Expected	No aquatic habitat is present at the project site.
Amphibians				
Rana draytonii California red-legged frog	Threatened/ None SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	Not Expected	Project site is entirely developed/disturbed. No aquatic habitat is present in the vicinity.
Taricha torosa Coast Range newt	None/None SSC	Coastal drainages from Mendocino County to San Diego County. Lives in terrestrial habitats and will migrate over 0.5 mile to breed in ponds, reservoirs, and slow moving streams.	Not Expected	Project site is entirely developed/disturbed. Nearest aquatic habitat is on the opposite side of highway and railroad.
Reptiles				

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Anniella stebbinsi southern California legless lizard	None/None SSC	Generally south of the Transverse Range, extending to northwestern Baja California. Occurs in sandy or loose loamy soils under sparse vegetation. Disjunct populations in the Tehachapi and Piute Mountains in Kern County. Variety of habitats; generally in moist, loose soil. They prefer soils with a high moisture content.	Not Expected	Project site is entirely developed/disturbed. Suitable loose, moist soils are not present.
Emys marmorata western pond turtle	None/None SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6,000 feet elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.25 mile from water for egg-laying.	Not Expected	Project site is entirely developed/disturbed. Nearest aquatic habitat is on the opposite side of highway and railroad.
Phrynosoma blainvillii coast horned lizard	None/None SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Birds				
Agelaius tricolor tricolored blackbird	None/ Threatened SSC	Highly colonial species, most numerous in Central Valley and vicinity. Requires open water, protected nesting substrate, and foraging area with insect prey within a few miles of the colony.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Ammodramus savannarum grasshopper sparrow	None/None SSC	Dense grasslands on lower mountain slopes, rolling hills, lowland plains, and valleys. Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Athene cunicularia burrowing owl	None/None SSC	Open, dry, annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent on burrowing mammals, most notably the California ground squirrel.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present. No mammal burrows observed at the site.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Charadrius alexandrinus nivosus western snowy plover	Threatened/ None SSC	Sandy beaches, salt pond levees, and shores of large alkali lakes. Needs sandy, gravelly, or friable soils for nesting.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Elanus leucurus white-tailed kite	None/None FP	River bottomlands or rolling hills next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Passerculus sandwichensis beldingi Belding's savannah sparrow	None/ Endangered	Coastal salt marshes from Santa Barbara south through San Diego County. Nests in Salicornia on and about margins of tidal flats.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Pelecanus occidentalis californicus California brown pelican	Delisted/Delisted FP	Colonial nester on coastal islands just outside the surf line. Nests on coastal islands of small to moderate size which afford immunity from attack by ground-dwelling predators.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Rallus obsoletus levipes light-footed Ridgway's rail	Endangered/ Endangered FP	Salt marshes traversed by tidal sloughs where cordgrass and pickleweed are the dominant vegetation. Requires dense growth for nesting or escape cover; feeds on molluscs and crustaceans.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Riparia riparia bank swallow	None/ Threatened	Nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured or sandy soils near streams, rivers, lakes, ocean to dig nest cavities.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Sternula antillarum browni California least tern	Endangered/ Endangered FP	Nests along the coast from San Francisco Bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated flat substrates including sand beaches, alkali flats, land fills, or paved areas.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Mammals				

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Antrozous pallidus pallid bat	None/None SSC	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present.
Corynorhinus townsendii Townsend's big-eared bat	None/None SSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Low	The warehouse in the project site may provide suitable roosting locations, and nearby Lake Los Carneros Park provides foraging habitat.
Eumops perotis californicus western mastiff bat	None/None SSC	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	Low	The warehouse in the project site may provide suitable roosting locations, and nearby Lake Los Carneros Park provides foraging habitat.
Lasiurus blossevillii western red bat	None/None SSC	Roosts primarily in trees, up to 40 feet above ground. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present
Lasiurus cinereus hoary bat	None/None	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present
Myotis yumanensis Yuma myotis	None/None	Optimal habitats are open forests and woodlands with sources of water over which to feed. Distribution is closely tied to bodies of water. Maternity colonies in caves, mines, buildings or crevices.	Low	The warehouse in the project site may provide suitable roosting locations, and nearby Lake Los Carneros Park provides foraging habitat.
Neotoma lepida intermedia San Diego desert woodrat	None/None SSC	Coastal scrub of Southern California from San Diego County to San Luis Obispo County. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops, rocky cliffs, and slopes.	Not Expected	Project site is entirely developed/disturbed. No suitable habitat is present

Attachment B

Site Survey Photographs



Photograph 1. View of the existing warehouse building in the project site. Photograph taken from the east side of the project site, facing west.



Photograph 2. View of a paved lot on the west side of the project site. Photograph taken facing north.



Photograph 3. View of a paved lot on the east side of the project site. Photograph taken facing northeast.



Photograph 4. View of the existing cul-de-sac at the northern terminus of South La Patera Lane. Photograph taken facing northeast.



Photograph 5. View of ornamental vegetation planted at the southeast corner of the warehouse building.



Photograph 6. View of the disturbed vegetation at the northern edge of the study area, outside the project site. Photograph taken facing northwest.

Appendix B

Cultural Resources Assessment



Goleta Train Depot Project

Cultural Resources Assessment Report

prepared for

City of Goleta
Public Works Department
130 Cremona Drive, Suite B
Goleta, California 93117
Contact: Gerald Comati

prepared by

Rincon Consultants, Inc.
209 East Victoria Street
Santa Barbara, California 93101

January 2020

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

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Executive Summary

Purpose and Scope

Rincon Consultants, Inc. (Rincon) was retained by the City of Goleta (City) to provide cultural resources services for the Goleta Train Depot Project (project) in Goleta, Santa Barbara County, California. The purpose of this report is to identify and evaluate cultural resources that may be affected by the implementation of the proposed project, which involves the construction of a new train depot on City-owned property at 27 South La Patera Lane. The existing warehouse building on the property would be demolished as a result of the proposed project. This cultural resources study was prepared in compliance with the requirements of the California Environmental Quality Act (CEQA).

This study includes a cultural resources records search of the California Historical Resources Information System (CHRIS), historical maps and aerial imagery review, Native American consultation including a Sacred Lands File (SLF) search conducted by the Native American Heritage Commission (NAHC), Assembly Bill 52 (AB 52) consultation, a field survey of the project site, archival research, an evaluation of the subject property for historical significance, and preparation of this report.

Dates of Investigation

Rincon Archaeologist Mary Pfeiffer, BA, contacted the NAHC on December 10, 2019, to request a SLF search and an AB 52 contact list of Native Americans culturally affiliated with the project site. Rincon Cultural Resource Specialist Susan Zamudio-Gurrola MHP, conducted a pedestrian survey of the project site on December 11, 2019. On December 12, 2019, Ms. Pfeiffer conducted the cultural resource records search at the Central Coast Information Center (CCIC). Ms. Pfeiffer sent informal consultation letters to known Native American contacts in the area on December 19, 2019, to request information on potential cultural resources in the project vicinity that may be impacted by project development.

Summary of Findings

The CHRIS records search at the CCIC, review of the California HRI list and background research identified 91 cultural resources within the 0.5-mile search radius, none of which were located on the project site. The SLF search returned positive results and NAHC listed contacts were sent informal outreach letters requesting information they may have regarding the presence of cultural resources. NAHC-listed contact, Freddie Romero (on the behalf of Kenneth Kahn), recommended archaeological and Native American monitoring during ground disturbing activities. Rincon has not received any responses from any Native American contacts specific to the positive SLF results.

The cultural resources field survey of the project site identified one historic-era property, 27 South La Patera Lane, which is developed with an industrial warehouse building constructed in 1967. As part of this cultural resources assessment, the property was evaluated for historical significance using federal, state, and local significance criteria. The property is recommended ineligible for listing in the National Register of Historic Places (NRHP) and California Register of Historical Resources

(CRHR) under all criteria. In addition, the property does not meet any of the eligibility criteria (a through j) for designation as a City of Goleta locally significant historic resource. Based on the results of this cultural resources assessment report, the property is not considered a historical resource under CEQA, and its demolition would not result in a significant adverse impact as defined by CEQA.

A review of archival information, historical aerial imagery and topographic maps show the project site is located adjacent to the Daniel Hill Adobe property, in close proximity to the Goleta Slough, Tecolotito Creek and Lake Los Carneros. Under CEQA, a project may have a significant effect on the environment if the project would "cause a substantial adverse change in the significance of an historical resource" (CEQA Guidelines §15064.5(b)). Such changes can include physical demolition, destruction, relocation or alteration of an historical resource or its immediate surroundings such that the significance of an historical resource would be materially impaired. The proposed project would not cause direct or indirect impacts to the locally designated Daniel Hill Adobe. No physical changes or alterations are proposed to the Hill Adobe as a part of the proposed project. The adobe's integrity of setting, feeling and association has already been significantly diminished due to the subdivision of the original rancho on which it was located; surrounding incompatible development on its parcel; and modern development on the surrounding properties. The proposed new train depot would be constructed over 250 feet away from the adobe at the northern end of the project site, and would be largely out of view due to modern features including an existing fence and three-story building which visually and physically separate the adobe from the proposed new construction. The proposed new depot building would not require major underground components such as underground parking or pile driving; therefore, construction vibration is not expected to significantly impact the adobe building. Other proposed improvements, such as the relocation of the existing turnaround within La Patera Lane further to the south, are within the City's right-of-way which has been continuously improved and maintained with modern materials. Construction vehicle access will occur on the established roadway and not in close proximity to the adobe. In summary, the proposed project would not cause direct or indirect impacts to the Hill Adobe. Development of the project would not cause physical demolition, destruction, relocation or alteration of the historical resource or its immediate surroundings such that its significance would be materially impaired. The Hill Adobe would retain the ability to convey its historical significance which justifies its inclusion in local registers of historical resources. Thus, with regards to built environment resources, Rincon recommends a finding of ***less than significant impact to historical resources as defined in § 15064.5*** of the CEQA guidelines.

Based on the positive results of the SLF search coupled with the ethnographic settlement patterns of the Chumash, the area is considered sensitive for archaeological resources. However, this is not an indication that archaeological resources exist within the project site itself. The existing level of ground disturbance, results of the record search and pedestrian field survey indicate a lack of archaeological resources on the project site and suggest a low potential for encountering subsurface archaeological deposits. Although the SLF search yielded positive results, the specific location of any sacred sites remains unknown.

Based on the results of this study and existing site development, it is unlikely that any archaeological resources are present within the project site. However, unanticipated discoveries of cultural resources during project ground disturbance remain a possibility. Rincon presents the following recommended mitigation measure in case of the unlikely event of the unanticipated discovery of cultural resources during project construction. With adherence to this recommendation, Rincon recommends a finding of ***less than significant impact with mitigation to archaeological resources***

as defined in § 15064.5 of the CEQA guidelines, which includes both unique and historical archaeological resources***.*** The project is also required to adhere to regulations regarding the unanticipated discovery of human remains, detailed below.

Unanticipated Discovery of Cultural Resources

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) should be contacted immediately to evaluate the find. If the discovery proves to be eligible for listing on the California Register of Historical Resources, additional work may be warranted, such as data recovery excavation, Native American consultation, and archaeological monitoring to treat the find.

Human Remains

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). The MLD has 48 hours from being granted site access to make recommendations for the disposition of the remains. If the MLD does not make recommendations within 48 hours, the land owner shall reinter the remains in an area of the property secure from subsequent disturbance.

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1 Introduction

Rincon Consultants, Inc. (Rincon) was retained by the City of Goleta (City) to conduct a cultural resources assessment in support of the Goleta Train Depot Project (project), Santa Barbara County, California. This assessment was prepared in compliance with the requirements of the California Environmental Quality Act (CEQA) and includes a cultural resources records search, a search of the Sacred Lands Files (SLF), consultation with Native American groups, a field survey of the project site, archival research, and preparation of this report.

1.1 Project Location

The project site is located at 27 South La Patera Lane (APN 073-050-033), Goleta, Santa Barbara County, California (Figure 1). The project site is depicted on Township 04 North, Range 28 West, Section 7 of the United States Geological Survey (USGS) *Goleta* CA 7.5-minute quadrangle (Figure 2). The 2.48-acre subject property is currently developed with an industrial building, a parking lot, storage area and vehicle yard, and general paving (Figure 3). Near to the project area are Old Town Goleta, the University of California Santa Barbara (UCSB), the Santa Barbara Airport, US 101, the Union Pacific Rail Road (UPRR), and the Goleta Train Depot served by Amtrak's Pacific Surfliner passenger rail service.

1.2 Project Description

The project would develop a new train depot on the project site, which would connect to the existing train platform. Based on Amtrak's ridership projections, the proposed depot would be categorized as a Caretaker station and would require a platform, platform canopy, station building, pick-up/drop-off lanes, signage, lighting, and various other amenities consistent with the *Amtrak Station Program and Planning Guidelines* (Amtrak 2013). The depot building component of the project would be located in the northern portion of the project site, adjacent to the existing Amtrak platform. The building would be an 8,000 square foot structure which would include a lobby, waiting area, community meeting room, restroom facilities with shower and changing areas, and a café. The existing warehouse on the property would be demolished as part of the project.

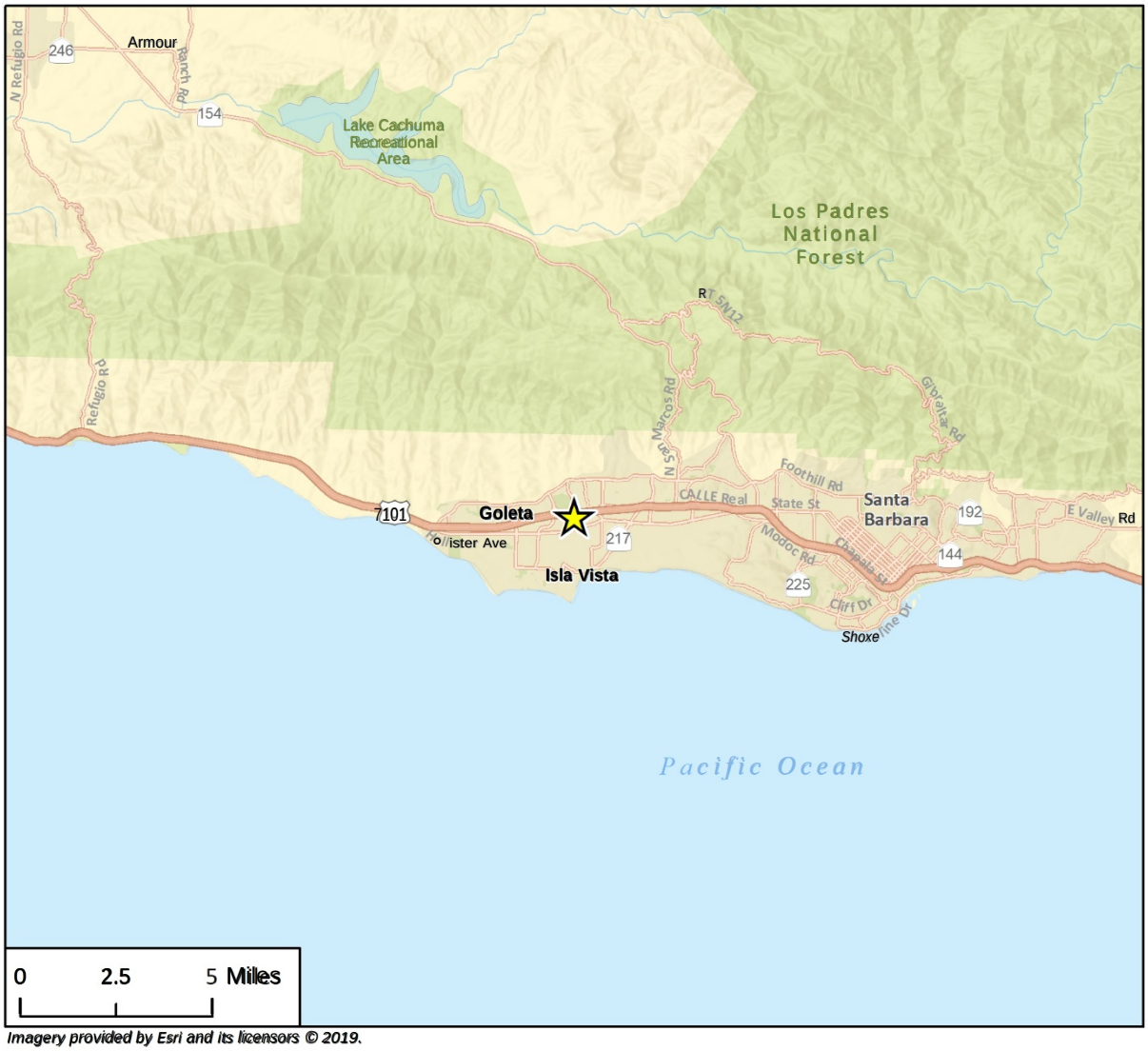
Project implementation would include off-site construction activities and improvements. An existing turnaround is located at the northern terminus of South La Patera Lane. The proposed project would relocate the turnaround to the south, as it is currently partially located within UPRR right-of-way. In addition, the project would provide a stop for Santa Barbara Metropolitan Transit District. The work would occur within City right-of-way and would involve various roadway and sidewalk improvements.

1.3 Personnel

Rincon Archaeologist Hannah Haas, MA, Registered Professional Archaeologist (RPA), managed this cultural resources study and provided senior oversight. Ms. Haas meets and exceeds the Secretary of the Interior's Professional Qualification Standards for archaeology. Archaeologist Mary Pfeiffer, BA, conducted the records search, Native American outreach and co-authored the report. Cultural

Resource Specialist Susan Zamudio-Gurrola, MHP, conducted the field survey, archival research and co-authored the report. Rincon GIS Analysts Erik Holtz, BS, and Annette Tran, MA, prepared the figures found in the report. Rincon Principal and Architectural History Program Manager Shannon Carmack and Rincon Principal and Senior Archaeologist Christopher A. Duran, MA, RPA, reviewed this report for quality control/quality assurance.

Figure 1 Vicinity Map

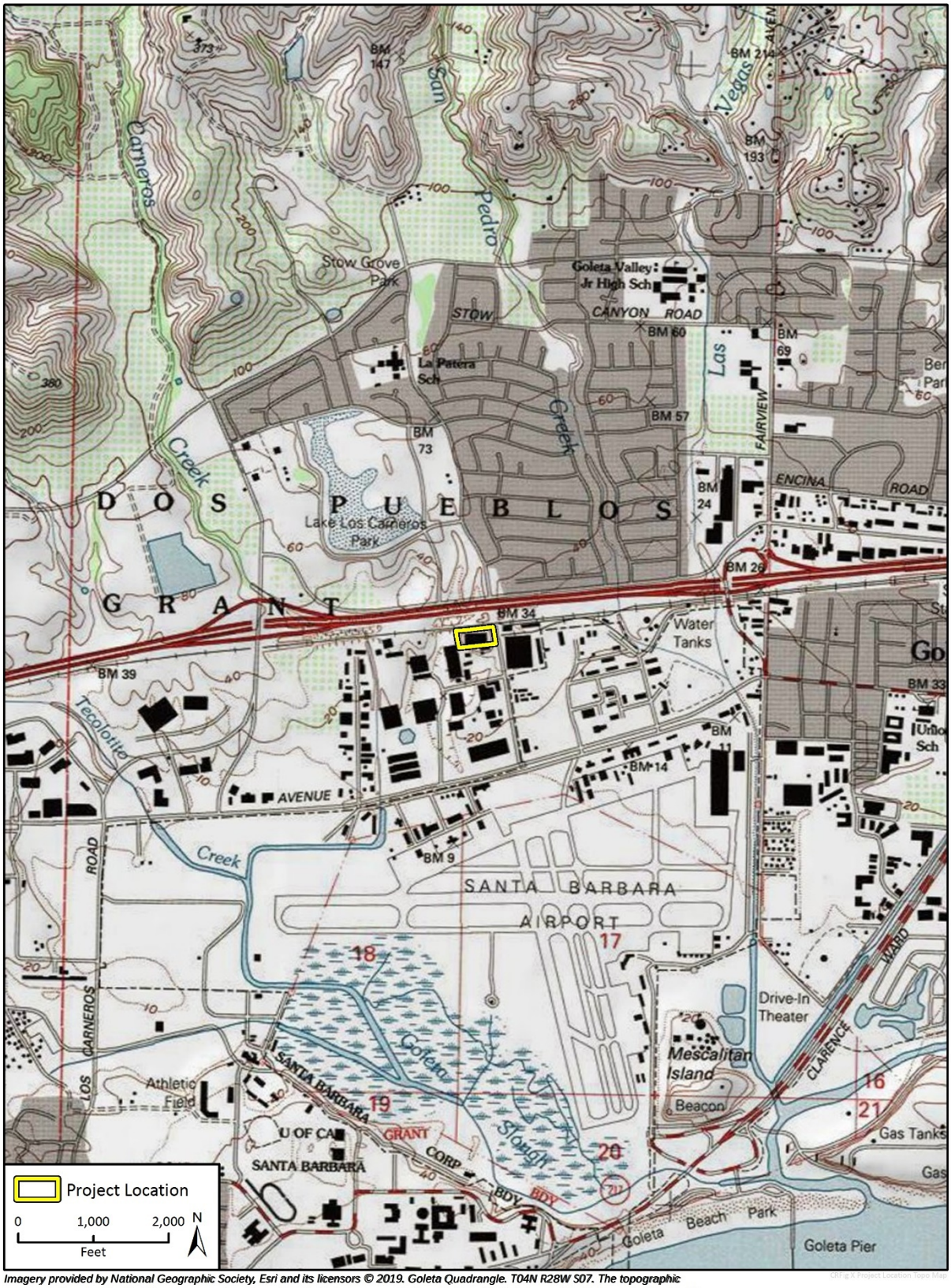


Project Location

N



Figure 2 Project Location Map



Imagery provided by National Geographic Society, Esri and its licensors © 2019. Goleta Quadrangle. T04N R28W S07. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

Figure 3 Site Map



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2 Regulatory Framework

This section discusses applicable state and local laws, ordinances, regulations, and standards governing cultural resources, to which the proposed project must adhere to before and during project implementation.

2.1 CEQA

PRC §5024.1, Section 15064.5 of the CEQA Guidelines, and PRC §§21083.2 and 21084.1 were used as the basic guidelines for this cultural resources study. CEQA (§21084.1) requires that a lead agency determine if a project could have a significant effect on historical resources. A historical resource is one listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR) (§21084.1), included in a local register of historical resources (§15064.5[a][2]), or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (§15064.5[a][3]). Resources listed in the National Register of Historic Places (NRHP) are automatically listed in the CRHR.

According to CEQA, impacts that adversely alter the significance of a resource listed in or eligible for listing in the CRHR are considered a significant effect on the environment. These impacts could result from physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired (CEQA Guidelines §15064.5 [b][1]). Material impairment is defined as demolition or alteration in an adverse manner [of] those characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the California Register (CEQA Guidelines §15064.5[b][2][A]).

2.2 National Register of Historic Places

The NRHP was established by the National Historic Preservation Act of 1966 as “an authoritative guide to be used by Federal, State, and local governments, private groups and citizens to identify the Nation’s cultural resources and to indicate what properties should be considered for protection from destruction or impairment” (CFR 36 CFR 60.2). The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, and association. A property is eligible for the NRHP if it meets any of the following criteria:

Criterion A: Are associated with events that have made a significant contribution to the broad patterns of our history

Criterion B: Are associated with the lives of persons significant in our past

Criterion C: Embody the distinctive characteristics of a type, period, or method of installation, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction

Criterion D: Have yielded, or may be likely to yield, information important in prehistory or history

In addition to meeting at least one of the above designation criteria, resources must also retain integrity. The National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven qualities, defined in the following manner:

Location: The place where the historic property was constructed or the place where the historic event occurred

Design: The combination of elements that create the form, plan, space, structure, and style of a property

Setting: The physical environment of a historic property

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

Workmanship: The physical evidence of the crafts of a particular culture or people during any given period in history or prehistory

Feeling: A property's expression of the aesthetic or historic sense of a particular period of time

Association: The direct link between an important historic event or person and a historic property

2.3 California Register of Historical Resources

The CRHR was created by Assembly Bill 2881, which was established in 1992. The California Register is an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change (Public Resources Code, 5024.1(a)). The criteria for eligibility for the CRHR are consistent with the National Register criteria but have been modified for state use in order to include a range of historical resources that better reflect the history of California (Public Resources Code, 5024.1(b)). Certain properties are determined by the statute to be automatically included in the CRHR by operation of law, including California properties formally determined eligible for, or listed in, the National Register.

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

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

Criterion 2: Is associated with the lives of persons important to our past

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

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

In addition, if it can be demonstrated that a project will cause damage to a *unique archaeological resource*, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC §21083.2[a], [b]).

PRC Section 21083.2(g) defines a *unique archaeological resource* as an artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

Criterion 1: Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information

Criterion 2: Has a special and particular quality such as being the oldest of its type or the best available example of its type

Criterion 3: Is directly associated with a scientifically recognized important prehistoric or historic event or person

2.4 Assembly Bill 52

As of July 1, 2015, California Assembly Bill 52 (AB 52) was enacted and expands CEQA by defining a new resource category: Tribal Cultural Resources (TCR). AB 52 establishes that "a project with an effect that may cause a substantial adverse change in the significance of a TCR is a project that may have a significant effect on the environment" (PRC §21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a TCR, when feasible (PRC §21084.3).

PRC §21074(a)(1)(A) and (B) defines TCRs as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and requires that they meet either of the following criteria:

1) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources, as defined in PRC §5020.1(k)
2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC §5024.1. In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe

AB 52 also establishes a formal consultation process for California tribes regarding TCRs. The consultation process must be completed before a CEQA document can be certified. Under AB 52, lead agencies are required to "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes that have requested notice of projects proposed in the jurisdiction of the lead agency are to be included in the process.

2.5 Local Regulations

City of Goleta

The City of Goleta does not currently have a historic preservation/historic resources ordinance in place. The City of Goleta's 2006 General Plan describes objectives pertaining to historic resources,

lists current historic resources in the City, and describes the criteria which should be used to evaluate a resource for local significance (General Plan, Chapter 6.0 Visual and Historic Resources Element, Policy VH 5: Historic Resources):

Structures or sites, including landscaping, having special historic, aesthetic, or cultural value to Goleta shall be designated as *locally significant historic resources.* A locally significant historic resource may include those resources listed, or eligible for listing, in the National Register for [sic] Historic Places, State Historic Landmarks, or the Santa Barbara County Landmarks/Places of Historical Merit inventories, as well as resources designated by the City. The City shall use the following eligibility criteria when considering a site or structure, including landscaping, for designation as a locally significant historic resource:

a. It exemplifies or reflects special elements of the city's cultural, social, economic, political, aesthetic, architectural, landscape architectural, or natural history.

b. It is identified with persons or events of local, state, or national history.

c. It embodies distinctive characteristics of a style, type, period, or method of construction or is an example of the use of indigenous materials or craftsmanship.

d. It represents works of a notable builder, designer, architect, or landscape architect.

e. It includes a geographically definable area possessing a concentration of historic, prehistoric, or scenic properties that are unified aesthetically.

f. It has a location with unique physical characteristics, including landscaping, or is a view or vista representing an established visual feature of a neighborhood or community.

g It embodies elements of design, detail, materials, or craftsmanship representing a significant structural, architectural, or landscape architectural achievement.

h. It reflects significant geographical patterns associated with different eras of settlement and growth.

i. It is one of a few remaining examples possessing distinguishing characteristics of an architectural, landscape architectural, or historical type.

j. It includes rare or specimen plant materials associated with a particular period or style of landscape history. (General Plan Policy VH 5.2 Locally Significant Historic Resources [GP])

Goleta General Plan Policy VH 5.7 addresses new construction projects undertaken in proximity to identified historic resources:

> **New Construction.** [GP] Development approved in proximity to an identified historic resource shall respect and be aesthetically compatible with the structures or sites in terms of scale, materials, and character.

3 Natural and Cultural Setting

3.1 Environmental Setting

The project site is located approximately 2.3 miles to the south of the Los Padres National Forest at an elevation that ranges from approximately 28-34 feet above mean sea level. The project site is bounded by the Southern Pacific Railroad and U.S. Highway 101 to the north, and commercial/office uses to the south, east and west. The nearest water source is San Pedro Creek located approximately 0.33 miles to the east. The soils in the area include a Milpitas-Positas fine sandy loam series that consists of deep to very deep, moderately well drained soils that formed in alluvium from mixed rock sources (California Soil Resource Lab 2019). Vegetation within the project site consists primarily of ornamentals.

3.2 Cultural Setting

Prehistoric Setting

The project site is located in what is generally described as the Northern Bight archaeological region, one of eight organizational divisions of the state (Jones and Klar 2007, Moratto 1984). The Northern Bight encompasses the northern portion of the California Bight, which is marked by the curve of the coastline along central California. The Northern Bight archaeological region primarily includes the counties of Santa Barbara, Ventura, and portions of Los Angeles, extending from the coastline at Vandenberg Air Force Base inland to the Cuyama River Valley and south to the Santa Monica Mountains and the Los Angeles Basin. Following Glassow et al. (2007), the prehistoric cultural chronology for the Northern Bight is generally divided into six periods: Paleo-Indian (ca. 10,000-7,000 B.C.E.), Millingstone Horizon (7,000- 5,000 B.C.E.), Early Period (5,000- 2,000 B.C.E), Middle Period (2,000 B.C.E- 1 C.E.), Middle-Late Transition Period (1- 1000 C.E.), and Late (1000 C.E.-Historic Contact). These periods are discussed in further detail below.

Paleo-Indian Period (ca. 10,000-7,000 B.C.E.)

The Paleo-Indian Period defines the earliest human occupation of the Northern Bight, and describes the cultural trends and subsistence strategies of prehistoric populations from approximately 10,000 to 7,000 B.C.E. (Glassow et al. 2007). The Paleo-Indian Period in North America is largely recognized by projectile points associated with extinct large mammal remains, such as mammoth, bison, and dire wolves in the Southwest and Plains regions (Erlandson et al. 2007; Huckell 1996; Reed 1992; Slaughter et al. 1992). These projectile points have been classified as the Clovis style, which exhibit a lanceolate shape with a flute initiated from the base that extends as far as the midline (Hollenshead 2007; Justice 2002).

The earliest accepted dates for human occupation in California were recovered from archaeological sites on two of the Northern Channel Islands, located off the southern coast of Santa Barbara County. The earliest radiocarbon dates known for the region, calibrated to approximately 11,000 years before present (B.P.), were derived from human remains and rodent bones recovered from within the same deposits on Santa Rosa Island (Erlandson et al. 2007; Glassow et al. 2007; Johnson et al. 2002). Archaeological deposits from the Daisy Cave site on San Miguel Island establishes the

presence of people in this area approximately 10,000 years ago (Erlandson 1991; Erlandson et al. 2007). In nearby San Luis Obispo County, archaeological sites CA-SLO-1764 (Lebow et al. 2001), Cross Creek (CA-SLO-1797; Fitzgerald 2000), and CA-SLO-832 (Jones et al. 2001) yielded radiocarbon dates from approximately 9,000 years ago (Jones and Ferneau 2002).

Recent data from Paleo-Indian sites in southern California indicate that the economy was a diverse mixture of hunting and gathering, with a major emphasis on aquatic resources in many coastal areas (e.g., Jones and Ferneau 2002; Erlandson et al. 2007). Archaeological deposits at the Daisy Cave site yielded an assemblage of "the oldest known fishhooks in the Americas" (Erlandson et al. 2007: 57). Shell middens discovered on the mainland of California have yielded dates from 8,000 to 7,000 B.C.E. (Erlandson et al. 2007).

A fluted projectile point fragment was recovered from site CA-SBA-1951 on the Santa Barbara Channel coastal plain (Erlandson 1994:44; Erlandson et al. 1987). Another fluted projectile point was reportedly found on the surface in Nipomo, San Luis Obispo County (Mills et al. 2005; Jones and Klar 2007). Large side-notched projectile points of the Central Coast Stemmed series in this area date to as early as 8,000 years ago (Justice 2002). Points of this type have been recovered along the Central Coast from sites such as Diablo Canyon (CA-SLO-2; Greenwood 1972), Cross Creek (CA-SLO-1797; Fitzgerald 2000), Little Pico Creek (CA-SLO-175; Jones and Waugh 1995), and the Honda Beach site (CA-SBA-530; Glassow 1996), among others. The Metcalf site (CA-SCL-178; Hildebrandt 1983), in southern Santa Clara Valley, yielded two large side-notched projectile points associated with charcoal dates ranging from 9,960 – 8,500 years ago.

Millingstone Horizon (7,000-5,000 B.C.E.)

It is generally accepted that human occupation of California during the Paleo-Indian period originated from small, dispersed occupations. Archaeological sites dating to the Millingstone Horizon, however, indicate a population increase (Glassow et al. 2007). The Millingstone Horizon, as described by Wallace (1955, 1978), is characterized by an ecological adaptation to collecting plant resources, such as seeds and nuts, suggested by the appearance and abundance of well-made milling (ground stone) implements, particularly in archaeological sites along the coast of California. The dominance of milling implements is generally associated with the horizontal motion of grinding small seeds and nuts and lends to the name Millingstone Horizon (Glassow et al. 2007).

Rogers (1929) originally identified the Millingstone Horizon along the Santa Barbara Channel in 1929. Excavations at the Tank Site (CA-LAN-1) in Topanga Canyon from 1947 to 1948 (Treganza and Bierman 1958) confirmed the presence of a significant number of milling implements that correspond with the Millingstone Horizon identified by Rogers in 1929. Wallace (1955, 1978) further defined the Horizon, which was recognized on the Central Coast by Greenwood (1972). The Cross Creek site (CA-SLO-1797) is a Millingstone occupation site in San Luis Obispo County that returned radiocarbon dates ranging between 9,500 – 4,700 years ago. This site represents one of the oldest expressions of the pattern (Jones et al. 2007; Fitzgerald 2000:58).

Wallace (1955, 1978) and Warren (1968) identify ground stone implements including Millingstones (e.g., metates, milling slabs) and hand stones (e.g., manos, mullers). Millingstones occur in high frequencies for the first time in the archaeological record of the Central Coast region, and become even more prevalent near the end of the Millingstone Horizon. Flaked stone assemblages, which include crude core and cobble-core tools, flake tools, large side-notched projectile points, and pitted stones (Glassow et al. 2007; Jones et al. 2007), and shell middens in coastal sites suggest that people during this period practiced a mixed food procurement strategy. Faunal remains identified at Millingstone sites point to broad-spectrum hunting and gathering of shellfish, fish, birds, and

mammals, though large faunal assemblages are uncommon. This mixed food procurement strategy demonstrates adaptation to regional and local environments.

Along the Central Coast, Millingstone period sites are most common on terraces and knolls, typically set back from the current coastline (Erlandson 1994:46). However, 42 sites have been identified in various settings, including rocky coasts, estuaries, and nearshore interior valleys (Jones and Klar 2007). The larger sites usually contain extensive midden deposits, possible subterranean house pits, and cemeteries. Most of these sites probably reflect intermittent use over many years of local cultural habitation and resource exploitation.

Early Period (5,000-2,000 B.C.E.)

The Early Period of the Northern Bight is marked by a lower frequency of radiocarbon dated archaeological sites as well as changes in artifact forms. Differences in artifact forms, and particularly in ground stone implements, likely represent changes in subsistence (Glassow et al. 2007). The material culture recovered from Early Period sites within the Central Coast region provides evidence for continued exploitation of inland plant and coastal marine resource as well as the incorporation of "newly important food resources" found in specific habitats (Glassow et al. 2007:197). In addition to the use of metates and manos, prehistoric populations began to use mortars and pestles, such as those recovered from the Sweetwater Mesa (CA-LAN-267) and Aerophysics (CA-SBA-53) sites (Glassow et al. 2007).

Artifact assemblages recovered from Early Period sites also include bipointed bone gorge hooks used for fishing, *Olivella* beads, bone tools, and pendants made from talc schist. Square abalone shell (*Haliotis* spp.) beads have been found in Monterey Bay (Jones and Waugh 1995:122). The frequency of projectile points in Early Period assemblages also increased, while the style began to change from lanceolate forms to side-notched forms (Glassow et al. 2007). This projectile point style trend, first identified by David Banks Rogers in 1929, was confirmed by Greenwood (1972) at Diablo Canyon. The projectile point trend has become apparent at numerous sites along the California coast as well as a few inland sites (e.g. CA-SBA-210 and CA-SBA-530). In many cases, manifestations of this trend are associated with the establishment of new and larger settlements, such as at the Aerophysics site (Glassow et al. 2007; Jones et al. 2007).

Middle Period (2,000 B.C.E.-1 C.E.)

The Middle Period describes a pronounced trend toward greater adaptation to regional or local resources as well as the development of socioeconomic and political complexity in prehistoric populations (Glassow et al. 2007). The remains of fish, land mammals, and sea mammals are increasingly abundant and diverse in archaeological deposits along the coast.

Shell fishhooks were introduced, and projectile points changed from side-notched dart points to contracting stem styles. Flaked stone tools used for hunting and processing—such as large side-notched, stemmed, lanceolate or leaf-shaped projectile points, large knives, edge modified flakes, and drill-like implements—occurred in archaeological deposits in higher frequencies and are more morphologically diversified during the Middle Period. Bone tools, including awls, are more numerous than in the preceding period, and the use of asphaltum adhesive became common. Circular fish hooks that date from between 1000 and 500 B.C.E., compound bone fish hooks that date between 300 and 900 C.E., notched stone sinkers, and the tule reed or balsa raft, indicative of complex maritime technology, became part of the toolkit during this period (Arnold 1995; Glassow et al. 2007; Jones and Klar 2005:466; Kennett 1998:357; King 1990:87–88).

Populations continued to follow a seasonal settlement pattern until the end of the Middle Period; large, permanently occupied settlements with formal architecture, particularly in coastal areas, appear to have been the norm by the end of the Middle Period (Glassow et al. 2007; Kennett 1998). Prehistoric populations began to bury the deceased in formal cemeteries with artifacts that may represent changes in ideology and the development of ritual practices (Glassow et al. 2007).

Middle-Late Transition Period (1-1,000 C.E.)

The Middle-Late Transition period is marked by major changes in settlement patterns, diet, and interregional exchange. Prehistoric populations continued to occupy more permanent settlements, with the continued use of formal cemeteries and the burial of goods with the deceased. The manufacture of the plank canoe, or *tomol*, allowed prehistoric populations to catch larger fish that occupied deeper sea waters (Glassow et al. 2007). Following the introduction of the plank canoe, groups began to use harpoons. The plank canoe appears to have influenced "commerce between the mainland coast and the Channel Islands" (Glassow et al. 2007:204). Middle-Late Transition Period sites indicate that populations replaced atlatl (dart) technologies with the bow and arrow, which required smaller projectile points. Projectile points diagnostic of both the Middle and Late periods are found within the Central Coast region (Jones and Ferneau 2002:217). These projectile points include large, contracting-stemmed types typical of the Middle Period, as well as small, leaf-shaped Late Period projectile points, which likely reflect the introduction of the bow and arrow.

Late Period (1,000 C.E.–Historic Contact)

Late Period sites are distinguished by small, finely-worked projectile points and temporally diagnostic shell beads. Although shell beads were typical of coastal sites, trade brought many of these maritime artifacts to inland locations, especially during the latter part of the Late Period. Small, finely-worked projectile points are typically associated with bow and arrow technology, which is believed to have been introduced to the area by the Takic migration from the deserts into southern California.

Common artifacts identified at Late Period sites include bifacial bead drills, bedrock mortars, hopper mortars, lipped and cupped *Olivella* shell beads, and steatite disk beads. The presence of beads and bead drills suggest that low-level bead production was widespread throughout the Central Coast region (Jones and Klar 2007).

Unlike the large Middle period shell middens, Late Period sites are more frequently single-component deposits. There are also more inland sites, with fewer and less visible sites along the Pacific shore during the Late Period. The settlement pattern and dietary reconstructions indicate a lesser reliance on marine resources than observed for the Middle and Middle-Late Transition periods, as well as an increased preference for deer and rabbit. An increase in the number of sites with bedrock mortar features that date to the Late Period suggests that nuts and seeds began to take on a more significant dietary role in Late Period populations.

Ethnographic Setting

The project site lies within Chumash ethnographic territory, which extends from the current city of Malibu, north beyond San Luis Obispo, and inland as far as 68 kilometers (42 miles) (Glassow 1996). The Chumash also inhabited the northern Channel Islands. The Chumash spoke six closely related languages, divided into two broad groups – Northern Chumash, consisting of only Obispeño, and Southern Chumash, including Purisimeño, Ineseño, Barbareño, Ventureño, and Island Chumash (Mithun 1999). The Chumash are divided into three main groups, including Interior, Coastal, and

Northern Channel Islands Chumash. The coastal Barbareño Chumash referred to themselves as the Wal-wa-ren-na, and "occupied the narrow coastal plain from Point Conception to Punta Gorda in Ventura County" (Grant 1978:509).

Chumash villages generally ranged between 30 and 200 people, with the largest settlements numbering anywhere from 500 to 800 people (Glassow 1996:14). Grant (1978) describes a typical Chumash village along the Santa Barbara Channel as consisting of "several houses, a sweathouse, store houses, a ceremonial enclosure, gaming area, and a cemetery usually placed well away from the living area." Archaeological investigations have recognized separate areas within cemeteries for elites and non-elites (King 1969).

Permanent Chumash villages included hemispherical or rounded mud-covered (insulated) pole and thatch dwellings arranged in close groups (Brown 2001). Thatching was made from tule, Carrizo grass, wild alfalfa, and fern (Grant 1978). Smaller Chumash groups correspondingly occupied short-term special-purpose camps throughout the year to acquire seasonal resources (Glassow 1996). Cooking fires were centered within the dwelling to allow smoke to ventilate through a hole in the roof (Grant 1978).

The Chumash are well-known for their wooden plank canoe, or tomol. The tomol facilitated the procurement of marine resources and the trade network between the mainland and the Channel Islands. Sea mammals were hunted with harpoons, while deep-sea fish were caught using nets and hooks and lines. In addition to marine resources, the Chumash subsistence focused on acorns, pine nuts, prickly pear cactus, and other plant resources, and land animals such as mule deer, antelope, quail, dove, and other waterfowl (Brown 2001). The Chumash also manufactured various other utilitarian and non-utilitarian items. Eating utensils, ornaments, fishhooks, harpoons, and other items were made using bone and shell. Olivella shell beads were especially important for trade.

Spanish explorers first arrived in the Santa Barbara Channel region in 1542. Contact had much more of an impact starting in 1770 with the establishment of the missions. Mission life led to severe population decline and culture loss (Johnson 1987). Although the Chumash languages are no longer commonly spoken (Timbrook 1990), many descendants of the Chumash still live in the region and a cultural revitalization has been ongoing since the 20th century (Glassow et al. 2007). Today, the Santa Ynez Band of Chumash Indians, whose reservation is approximately 32 kilometers (20 miles) northwest of the project site, is the only federally recognized tribe.

3.3 Historic Overview

Spanish Period (1769-1822)

The Santa Barbara Channel region was first visited by the Cabrillo Expedition in 1542 (Chesnut 1993). For more than 200 years, Cabrillo, Vizcaino and other Spanish, Portuguese, British, and Russian explorers sailed the Alta (upper) California coast and made limited inland expeditions, but they did not establish permanent settlements (Bean 1968; Rolle 2003). It was not until 1769 that the Spanish established the first settlement in Alta California in San Diego, a presidio (military fort) and Mission San Diego de Alcala, the first of 21 missions founded by the Franciscans. The Spanish presidio in Santa Barbara was established in 1782, and four years later construction on Mission Santa Barbara was started. The Spanish relied on Chumash labor to construct buildings, a dam, and aqueduct system. Spanish families began to settle the area, becoming the pueblo of Santa Barbara. These settlers began to use the Goleta Valley for ranching and agriculture.

Mission life led to severe population decline and culture loss among the Chumash. The Spanish brought with them diseases for which the Chumash had no immunity. Living and working in close proximity spread diseases throughout the native populations and killed many. The Spanish also introduced domestic plants and animals for labor and food. These non-native species vastly altered the landscape, forcing the Chumash to adopt new foods and lifeways.

Mexican Period (1822-1848)

Mexico's revolution against Spain achieved success in 1821. News of the victory reached California in 1822, marking the beginning of the Mexican period. During this period the mission lands were secularized enabling Mexican governors to distribute property to individuals in the form of land grants. More than 700 land grants were made between 1833 and 1846, putting most of the state's lands into private ownership for the first time (Shumway 2007). Forty land grants were issued in Santa Barbara County, where its fertile valleys were ideal for the ranching and agriculture prevalent during this period (Avina 1976; Tompkins 1976, 1987; Chesnut 1993). Santa Barbara thrived on the hide and tallow trade.

Daniel Hill, a native of Massachusetts, arrived in the area in 1823. He established a trading post, then went into carpentry, masonry and soap making. In 1825 he married Rafaela Ortega, daughter of Don Jose Vicente Ortega. Hill was granted approximately 4,400 acres by Governor Pio Pico in 1846, which he called Rancho La Goleta (named for a sailing ship or "goleta") (Redmon 2010). Hill's son-in-law, Nicolas Den, was awarded a large land grant in 1842 which was known as Rancho Dos Pueblos and located west of Rancho La Goleta (San Buenaventura Research Associates 2010).

American Period (1849-Present)

The discovery of gold in northern California in 1848 led to the California Gold Rush, despite the first California gold being discovered in Placerita Canyon in 1842 (Guinn 1915). The American Period officially began with the signing of the Treaty of Guadalupe Hidalgo in 1848 which ended the Mexican-American War. The United States agreed to pay Mexico $15 million for the conquered territory of California, Nevada, Utah, and parts of Colorado, Arizona, New Mexico, and Wyoming. In 1850, several months before California was admitted as the 31st state, the County of Santa Barbara was incorporated.

Southern California remained dominated by cattle ranches in the early American period, though droughts and increasing population resulted in farming and a growth in urban professions that increasingly supplanted ranching through the late nineteenth century. By 1853, the population of California exceeded 300,000. Thousands of settlers and immigrants continued to immigrate into the state, particularly after the completion of the transcontinental railroad in 1869.

Goleta

By 1860, Daniel Hill had acquired an additional 1,000 acres of land from the adjacent Rancho Dos Pueblos for his cattle ranch. Heavy rains in late 1861 through early 1862, in conjunction with the loss of vegetation from cattle grazing, caused substantial erosion and deposition of sediment and debris in the slough. A severe drought followed, and cattle ranching became less lucrative. Hill sold his remaining cattle, filed a homestead claim, and sold the remainder of his lands for farming and estate development. In 1869 Col. W.W. Hollister purchased approximately 5,000 acres from Den, and calling the ranch Glen Annie, planted it with walnut trees and nursery stock (San Buenaventura Research Associates 2010; Historic Resources Group 2018).

Two villages developed around the year 1869 along the county road (present-day Hollister Avenue) which linked the agricultural area to Santa Barbara and points north. The approximately 250-acre town site for La Goleta was laid out near present day Hollister and Patterson avenues in 1875. A second small town, called La Patera, was settled around the same time slightly to the west near present day Hollister and Fairview avenues. In 1883 Goleta boasted a population of 200 people. In 1887 the Southern Pacific Railroad arrived, and a through route to San Francisco was completed in 1901. By the early 1900s the Goleta Valley was planted with expansive orchards growing lemons, walnuts, olives, and oranges. Other crops included beans, sugar beets, vegetables, and nursery stock. An airport was developed in 1928 at the intersection of Hollister and Fairview avenues, and expanded in the 1930s and again during World War II. The post office was moved from Goleta to La Patera in 1936 which resulted in the shift of the town center to the western end of Hollister Avenue. The University of California, Santa Barbara campus was developed in 1954 next to the airport. Aerospace companies entered the area in the 1950s, including the Studebaker-Packard Corporation and Raytheon. Farming was impacted by this increased development and population growth necessitated the construction of housing tracts and commercial development. The City of Goleta formally incorporated in 2002 (San Buenaventura Research Associates 2010; Historic Resources Group 2018).

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4 Background Research

4.1 California Historical Resources Information System

Rincon Archaeologist Mary Pfeiffer, BA, completed a California Historical Resources Information System records search on December 12, 2019, at the Central Coast Information Center (CCIC) at the University of California, Santa Barbara. The purpose of the records search was to identify previously recorded cultural resources, as well as previously conducted cultural resources studies of the project site and a 0.5-mile radius surrounding it. The search also included a review of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Historical Landmarks list, the Archaeological Determination of Eligibility (ADOE) list, and the California State Historic Resources Inventory (HRI) list. Results from the records search can be found in Appendix A of this cultural resources study.

Previous Studies

The CCIC records search identified 124 previously conducted cultural resource studies within a 0.5-mile radius of the project site. Of these, ten studies include portions the project site and are summarized below. Appendix A provides the results of the records search.

SR-01082

Peak & Associates prepared SR-01082, "*Class I Inventory for a Proposed Fiber Optic Communication Route, San Francisco to Los Angeles",* in 1988. This cultural resource study included a records search and provided recommendations for future investigations consistent with a Class I study. Peak and Associates identified 13 archaeological sites in Goleta, and recommended a field investigation be conducted within the areas that have not been previously surveyed. Map pages appear to be missing from the report file. This study identified no cultural resources within the proposed project site.

SR-01419

Peak & Associates and L.W. Reed Consultants prepared SR-01419, "*Consolidated Report: Cultural Resources Studies for the Proposed Pacific Pipeline Project",* in 1992. The report consolidates the results of previous cultural resource studies for the Pacific Pipeline Project. Site CA-SBA-57 and CA-SBA-60 were mapped together as reaching approximately between Los Carneros Road and San Jose Creek. The authors describe CA-SBA-57 as consisting of housepits, burials, ground stone, and projectile points. The authors describe CA-SBA-60, focused around Fairview Avenue (approximately 0.6 miles east of the project site), as a large Chumash occupation site, shell midden, and more than 100 flexed burials. The report included recommendations for a Phase 2 test excavation program as the next phase of field work. Pages appear to be missing from the report file. This study identified no cultural resources within the proposed project site.

SR-01446

Peak & Associates prepared SR-01446, *"Class I Inventory and Clearance Report for the Proposed American Telephone and Telegraph Salinas to Los Angeles Fiberoptics Communication Route",* in

1988. The study, which included a records search, primarily focused on determining the number of cultural resources located on the ROW for the fiberoptic communication cable. The authors recommended that a field survey be conducted for areas that had not been previously surveyed, all recorded cultural resources be revisited, and additional historic-period archival research be done. This study identified no cultural resources within the proposed project site.

SR-01447

Peak & Associates prepared SR-01447*, "Report on the Shovel Testing of 24 Prehistoric Period Cultural Resources and the Class 3 Reassessment-Pacific Coast Pipeline Santa Barbara, Ventura and Los Angeles Counties",* in 1992. The report included the results of a previous systematic and detailed field inspection completed in 1991, an additional re-examination/survey, and provided mitigation measures for the protection of cultural resources. Shovel testing was conducted at 24 archaeological sites, but not at SBA-57 or SBA-60, which are two sites in the vicinity of the project site. A backhoe trench was recommended to determine the integrity of SBA 57/60. This study identified no cultural resources within the proposed project site.

SR-01449

Peak & Associates prepared SR-01449*, "Report on the Backhoe Trenching of Potential Cultural Resource Sites for the Pacific Pipeline Project, Santa Barbara and Ventura Counties, California",* in 1993. The report presented the results of the backhoe testing program to define boundaries of sites where they were not known, and to determine the presence or absence of buried cultural resource deposits in order to inform possible avoidance of cultural resource sites. Of the 67,251 feet of possibly sensitive area, only 18% of the total area proved to be positive or possibly positive for the presence of buried cultural resources. The report describes two site numbers, SBA-57 and SBA-60, have been used for an 8,275-foot long area located between Los Carneros and San Jose creeks, which includes the current project site. Sixty-seven backhoe trenches were excavated at SBA-57/60 on the north side of the railroad track centerline, and identified shell, glass, flaked stone, metal, fire-altered rock, a dog burial, and charcoal. Of the 8,275 feet tested, 2,454 feet (30%) were found to contain areas with cultural deposits or suspected cultural deposits. The area with the greatest concentration of test units with cultural or suspected cultural deposits was located near the Fairview Road overpass, approximately 0.60-mile east of the project site. This study identified no cultural resources within the proposed project site.

SR-01811

Chester King prepared SR-01811, "*Native American Placenames in the Vicinity of the Pacific Pipeline Part 2: Gaviota to the San Fernando Valley: Draft",* in 1993. The study is one of two general overview reports that present information concerning Native American placenames in the vicinity of the proposed pipeline project. This study identified no cultural resources within the proposed project site.

SR-02142

Joseph A. Hannan of the City of Santa Barbara prepared SR-02142, "*Management and Preservation Plan for the Goleta Slough"*, in 1975. The document expanded upon a 1970 California Department of Fish and Game report by identifying and categorizing the natural values of the Goleta Slough, providing guidelines for the preservation of the slough's natural resources, and exploring plans to

more fully utilize the educational and recreational potential of the slough area. This study identified no cultural resources within the proposed project site.

SR-04058

SWCA Environmental Consultants prepared SR-04058, "*Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project, State of California",* in 2006. The report presents the results of a cultural resources investigation for the maintenance of fiber optic cable within the Qwest network backbone. The backbone includes approximately 1,431 linear miles of cable from Oregon to Arizona. The California section was divided into 36 segments for the investigation, which included literature searches, SLF searches, surveys, relocation of previously recorded archaeological sites, and monitoring of the maintenance work. The report mapped the location of SBA-57 generally between Aero Camino and Robin Hill Road, and Hollister Avenue and the railroad alignment, approximately 0.20-mile west of the project site. SBA-60 was mapped between Hollister Avenue and the railroad alignment where Fairview Avenue and the US-101 meet, approximately 0.60-mile east of the project site. Both sites were described as in poor condition. This study identified no cultural resources within the proposed project site.

SR-04111

S.W. Yost, I. Strudwick, D. Ing, R. Klein, W. R. Miller, E. Black, D. Jones-Bartholomew, J.M. Yost and H.H. Higgins prepared SR-04111, "*Final Report on Cultural Resource Monitoring Level (3) Long Haul Fiber Optic Running Line, San Luis Obispo to Burbank, California, San Luis Obispo, Santa Barbara, Ventura and Los Angeles Counties*", in 2001. This study consisted of a record search, survey, monitoring and testing. This study identified no cultural resources within the proposed project site.

SR-04985

David Stone of Dudek prepared SR-04985, "*Archaeological Monitoring Letter Report, Direct Relief International, 27 North La Patera Road, Goleta",* in 2013. The monitoring report was prepared for the site on which the current project is proposed; however, Stone erroneously lists the street address as North La Patera Road. While the fiber optic cable alignment extended from the intersection of South La Patera Road with Hollister Avenue and entered the project site at its southeastern corner through the landscaping adjacent to the driveway, Dudek's test pits were excavated within the roadway. No testing was performed on the proposed project site, and no cultural resources were identified within the proposed project site.

Previously Recorded Cultural Resources

The CCIC records search identified 68 previously recorded cultural resources within a 0.5 mile radius of the project site, none of which were within or adjacent to the project site (Table 1).

Table 1 Previously Recorded Cultural Resources within 0.5 mile of the Project Site

Primary Number	Resource Type	Description	Recorder(s) and Year(s)	NRHP/CRHR Eligibility Status	Relationship to Project Site
P-42-000056	Prehistoric Site	Prehistoric habitation site consisting of dense shell midden, lithics, FAR, groundstone implements and burials. Subsurface testing conducted in 1927, 1995 and 2001 recovered human remains and intact cultural deposits. The site has been subject to historic and modern impacts and the northern portion of the site has been destroyed from bulldozing.	Rogers, D.B., 1929; , Chartkoff, J., Charthoff, K., Kona, L., 1967; Erlandson and Wilcoxon, 1981; Unknown, 1995; Fulton, P., 2001	Individual property determined eligible for the NR by a consensus through Section 106 process. Listed in the CR (2S2)	Outside
P-42-000057	Prehistoric Site	Prehistoric habitation site consists of circular depressions (house pits), burials, manos, stone bowls, projectile points, lithics, midden and metates. Rogers excavated 46 units within the site.	Rogers, D.B., 1925; Erlandson and Wilcoxon, 1981	Unknown	Outside
P-42-000058	Prehistoric Site	Prehistoric habitation site consisting of stone tools, rock features, isolated burials, shell midden and debitage. A burial and a large bowl were recovered during bulldozing activities. The site has since been destroyed from residential housing developments.	Rogers, D.B., 1929; Craig, 1925-1979, Miller, D., 1961	Unknown	Outside
P-42-000059	Prehistoric Site	Site details not found within record.	Rogers, D.B., 1929	Unknown	Outside
P-42-000060	Prehistoric Site	Recorded as the Chumash village of *S'axpilil.* The site has been extensively tested. Shell, flaked stone and a cranial fragment were recovered during excavations, most of which were identified within highly disturbed soils.	Rogers, D.B., 1929; Chartkoff, J., Charthoff, K., Kona, L., 1967; Spanne, L., 1968; Erlandson and Wilcoxon, 1981; Chalmers, L., 1994; Eisentraut, P., 1994; Eisentraut, P., 1995; Strudwick, I., 2001; Munns, A., 2003; Munns, A., 2005; Victorino, K., 2008	Individual property determined eligible for the NR by a consensus through Section 106 process. Listed in the CR (2S2)	Outside

Primary Number	Resource Type	Description	Recorder(s) and Year(s)	NRHP/CRHR Eligibility Status	Relationship to Project Site
P-42-000062	Prehistoric Site	Prehistoric occupation site consisting of shell midden, FAR and debitage. Erlandson and Wilcoxon state that Rogers (1929) noted burial exposure during plowing activities. A housing tract now covers the majority of the site.	Rogers, D.B., 1929; Chartkoff, J., Charthoff, K., Kona, L., 1967; Erlandson and Wilcoxon, 1981	Unknown	Outside
P-42-001574	Prehistoric Site	Prehistoric low to moderate density shell and chert flake scatter.	Erlandson and Heinzen, 1978	Unknown	Outside
P-42-001575	Prehistoric Site	Prehistoric low density shell and lithic scatter.	Erlandson and Heinzen, 1978	Unknown	Outside
P-42-001576	Prehistoric Site	Prehistoric very low density shell and lithic scatter. Erlandson and Heinzen note that this is a possible campsite.	Erlandson and Heinzen, 1978	Unknown	Outside
P-42-001577	Prehistoric Site	Prehistoric very low density shell and lithic scatter. Erlandson and Heinzen note that this is a possible campsite.	Erlandson and Heinzen, 1978	Unknown	Outside
P-42-001703	Prehistoric Site	Prehistoric well developed shell midden located under historic-period fill. Site is located between CA-SBA-60 and CA-SBA-61. Debitage, bone, and shell were recovered from excavations in 2009 and 2015. Deposits were highly disturbed and culturally insignificant.	Erlandson and Wilcoxon, 1981; Ruby, Allika, 2006; Victorino, Ken, 2009; Ruby, Allika 2015	Individual property determined eligible for the NR by a consensus through Section 106 process. Listed in the CR (2S2)	Outside
P-42-002391	Prehistoric Site	Prehistoric low-density shell scatter with two concentrations. One groundstone fragment, one chert flake, and one unmodified steatite pebble were also noted. The site is located within a highly disturbed area.	Wells and Huber, 1990	Unknown	Outside
P-42-003742	Historic Site	Historic-period building remains and associated features seen in aerials dating to 1929 and 1938. Remains are located within the current Santa Barbara Municipal Airport location. This resource was located during backhoe excavations.	Gerber, J., 2004	Unknown	Outside

Primary Number	Resource Type	Description	Recorder(s) and Year(s)	NRHP/CRHR Eligibility Status	Relationship to Project Site
P-42-003817	Historic Structure	Historic-period unlined drainage ditch associated with the initial construction of the Santa Barbara Municipal Airport in 1941.	Bass, B., and R. Farmer, 2003	Unknown	Outside
P-42-003822	Prehistoric	Prehistoric midden site consisting of FAR, marine shell, and possible groundstone. The site record notes that this may be a secondary deposit relocated from CA-SBA-58.	Bass, B., and R. Farmer, 2003	Unknown	Outside
P-42-003944	Prehistoric	Prehistoric redeposited shell, bone and flaked stone. Deposit located during data recovery excavations and waterscreening at CA-SBA-60.	Munns, A., 2005	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-040960	Historic Structure	Southern Pacific Railroad Bridge over San Pedro Creek, constructed in 1899.	Beedle, P., 2007	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041026	Historic-era Building	Building No. 267, Squadron Maintenance Hangar/ Hangar No. 3, constructed in 1943 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994; Morlet, Aubrie, 2014	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041027	Historic-era Building	Building No. 268, Storehouse Building, constructed in 1943 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994; Morlet, A., 2014	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041028	Historic-era Building	Building No. 309, Squadron Maintenance Hangar/ Hanger No. 2, constructed in 1943 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994; Morlet, A., 2014	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside

Primary Number	Resource Type	Description	Recorder(s) and Year(s)	NRHP/CRHR Eligibility Status	Relationship to Project Site
P-42-041031	Historic-era Building	Building No. 305, Squadron Headquarters, constructed in 1942 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041034	Historic-era Building	Building No. 314, Storehouse Building, constructed in 1943 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041035	Historic-era Building	Building No. 315, Storehouse Building, constructed in 1943 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041036	Historic-era Building	Building No. 114, Supply Officer and Accounts Building, constructed in 1944 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041037	Historic-era Building	Building No. 115, Aircraft Maintenance Building No. 2, constructed in 1943 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041038	Historic-era Building	Building No. 116, Aircraft Maintenance Building No. 1, constructed in 1944 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside

Primary Number	Resource Type	Description	Recorder(s) and Year(s)	NRHP/CRHR Eligibility Status	Relationship to Project Site
P-42-041039	Historic-era Building	Building No. 117, Post Office and Business Aircraft Sales Corporation, constructed in 1943 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041040	Historic-era Building	Building No. 118, Firehouse No. 2 and County Fire Station No. 12, constructed in 1943 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041045	Historic-era Building	Hangar Building No. 210, constructed in 1970 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041046	Historic-era Building	Building No. 211, Goleta Auto Body, constructed in 1965 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation 6Z)	Outside
P-42-041047	Historic-era Building	Building No. 212, Cinema Twin Theater, constructed in 1965 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041048	Historic-era Building	Building No. 223, Storehouse Building, constructed in 1944 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside

Primary Number	Resource Type	Description	Recorder(s) and Year(s)	NRHP/CRHR Eligibility Status	Relationship to Project Site
P-42-041049	Historic-era Building	Building No. 224, Storehouse Building, constructed in 1943 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041050	Historic-era Building	Building No. 225, Storehouse Building, constructed in 1943 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041051	Historic-era Building	Building No. 226, Storehouse Building, constructed in 1943 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041052	Historic-era Building	Building No. 238, Storehouse Building, constructed in 1943 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041053	Historic-era Building	Building No. 239, Parachute Building, constructed in 1942 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Locally significant both individually (listed, eligible, or appears eligible) and as contributor to a district that is locally listed, designated, determined eligible, or appears eligible through survey evaluation (5B1)	Outside

Primary Number	Resource Type	Description	Recorder(s) and Year(s)	NRHP/CRHR Eligibility Status	Relationship to Project Site
P-42-041054	Historic-era Building	Building No. 240, Aircraft Accessory Maintenance Building, constructed in 1942 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041055	Historic-era Building	Building No. 241, Dope and Spray Building, constructed in 1943 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Locally significant both individually (listed, eligible, or appears eligible) and as contributor to a district that is locally listed, designated, determined eligible, or appears eligible through survey evaluation (5B1)	Outside
P-42-041056	Historic-era Building	Building No. 242, Standby Power Unit, constructed in 1943 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041058	Historic-era Building	Building No. 246, Propeller Shop, constructed from 1942-1944 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Locally significant both individually (listed, eligible, or appears eligible) and as contributor to a district that is locally listed, designated, determined eligible, or appears eligible through survey evaluation (5B1)	Outside

Primary Number	Resource Type	Description	Recorder(s) and Year(s)	NRHP/CRHR Eligibility Status	Relationship to Project Site
P-42-041059	Historic-era Building	Building No. 247, A & R Maintenance Hangar, constructed between 1943 and 1944 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Locally significant both individually (listed, eligible, or appears eligible) and as contributor to a district that is locally listed, designated, determined eligible, or appears eligible through survey evaluation (5B1)	Outside
P-42-041060	Historic-era Building	Building No. 251, Storehouse Building, constructed in 1943 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Locally significant both individually (listed, eligible, or appears eligible) and as contributor to a district that is locally listed, designated, determined eligible, or appears eligible through survey evaluation (5B1)	Outside
P-42-041061	Historic-era Building	Building No. 255/256, Administration Telephone Building, constructed between 1942 and 1943 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041062	Historic-era Building	Building No. 257, Storehouse Building, constructed in 1970 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041063	Historic-era Building	Building No. 258, Squadron Headquarters, constructed in 1942 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside

Primary Number	Resource Type	Description	Recorder(s) and Year(s)	NRHP/CRHR Eligibility Status	Relationship to Project Site
P-42-041064	Historic-era Building	Building No. 259, Sewer Lift Station, constructed in 1943 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041066	Historic-era Building	Building No. 269, T-Hangars, constructed in 1970 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041068	Historic-era Building	Hangar Building No. 271, constructed in 1970 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041069	Historic-era Building	Building No. 274, 284 and 295 (Santa Barbara Aviation Hanger Buildings), constructed in 1965 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041070	Historic-era Building	Building No. 276, Hanger, constructed 1970 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041071	Historic-era Building	Building No. 283, T-Hangars, constructed in 1965 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside

Primary Number	Resource Type	Description	Recorder(s) and Year(s)	NRHP/CRHR Eligibility Status	Relationship to Project Site
P-42-041072	Historic-era Building	Building No. 301, Guard House, constructed in 1943 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041073	Historic-era Building	Building No. 302, Storehouse Building, constructed in 1943 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041074	Historic-era Building	Building No. 303, Storehouse Building, constructed in 1943 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041075	Historic-era Building	Building No. 304, Squadron Headquarters, constructed in 1942 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041076	Historic-era Building	Building No. 306, Public Works Shop, constructed in 1943 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041077	Historic-era Building	Hangar Building No. 307, constructed in 1965 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside

Primary Number	Resource Type	Description	Recorder(s) and Year(s)	NRHP/CRHR Eligibility Status	Relationship to Project Site
P-42-041078	Historic-era Building	Building No. 311, Servicemaster, constructed in 1940 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041079	Historic-era Building	Building No. 312, Operations Building, constructed in 1943 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041083	Historic-era Building	Building No. 333, Synthetic Training Building, constructed in 1944 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041084	Historic-era Building	Building No. 344, Ordinance and Torpedo Building, constructed in 1944 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041086	Historic-era Building	Building No. 347, Airport Maintenance Yard, constructed in 1965 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041088	Historic-era Building	Building No. 351, Acorn Landscaping, constructed in 1940 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside

Primary Number	Resource Type	Description	Recorder(s) and Year(s)	NRHP/CRHR Eligibility Status	Relationship to Project Site
P-42-041089	Historic-era Building	Building No. 352, constructed in 1940 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041091	Historic-era Building	Building No. 364, AGRX, constructed in 1960 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041092	Historic-era Building	Building No. 367, Control Tower, constructed in 1962 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside
P-42-041094	Historic-era Building	Southern California Edison office and industrial building complex constructed in 1984 and located within the Santa Barbara Municipal Airport.	Stone, M. and J. Triem, 1994	Found ineligible for the National Register, California Register, or Local designation through survey evaluation (6Z)	Outside

Source: Central Coast Information Center 2019

The California HRI list indicates the presence of one additional historic-period resource (Building 261 Squadron Maintenance Hangar) within the 0.5-mile search radius that was not identified in the records search, and is located outside the project site. California Historical Resource Status Codes indicates this resource has been determined ineligible for listing in the NRHP by consensus through Section 106 process, but has not been evaluated for the CRHR or Local Listing (6Y).

Daniel Hill Adobe

Archival research identified the existence of a historical resource, the Daniel Hill Adobe, at 33-35 South La Patera Lane, the parcel adjacent to the project site. Constructed in approximately 1850, the Hill Adobe is significant as the home of one of the earliest settlers in Goleta, owner of Rancho La Goleta. Although the rancho lands were subdivided for development, the home remains on a small parcel that has been developed with additional buildings in the second half of the 20th century. The Hill Adobe is a County of Santa Barbara Place of Historic Merit and is recognized in the City of Goleta General Plan as a locally significant historic resource.

4.2 Review of Historical Topographic Maps and Aerial Imagery

Rincon also reviewed available historical topographic maps and aerial imagery of the project site to determine past land use. A historical topographic map from 1942 shows a building directly south of the project site, with the Southern Pacific Railroad in its current alignment and US Highway 101 approximately 0.3 miles to the south (USGS 2019a). This building is likely the Daniel Hill Adobe located on the parcel adjacent to and south of the subject property. A map from 1957 depicts the building presently on the project site and historic period buildings existing slightly to the south, with U.S. Highway 101 in its current alignment (USGS 2019b).

Aerial imagery from 1928 shows the project site as being mostly planted with orchard rows. To the south is the Daniel Hill Adobe and a few other likely related buildings, as well as mature trees and vegetation. Although not clearly visible, the railroad appears to run slightly to the north of the project site, and the land across the road to the east is undeveloped. An aerial photo from 1956 shows the project site as primarily undeveloped, cleared land with one small building in the northwestern portion of the property. The Daniel Hill Adobe and other buildings remain slightly to the south surrounded by vegetation. A large pond of water lies beyond these structures. To the north of the project site are the railroad tracks followed by the highway; both run east-west. Across the street to the east are large warehouses or packinghouses and a spur line branching to the south to pass between those buildings. By 1972 the project site is developed with the subject warehouse, and a spur track is visible running adjacent to the north side of the building (UCSB Map & Imagery Lab 1928, 1956, and 1972).

4.3 Native American Outreach

Rincon Archaeologist Mary Pfeiffer, BA, contacted the Native American Heritage Commission (NAHC) on December 10, 2019, to request a search of the Sacred Lands File (SLF) and a contact list of Native Americans culturally affiliated with the project site. A response was received from the NAHC on December 17, 2019, stating the SLF search had been completed with “positive” results. The NAHC did not give a specific tribe to contact and recommended Rincon contact all the tribes on the list the NAHC provided. The NAHC identifies sacred lands by quadrangle and although the SLF results were positive, sacred lands could exist anywhere within the Goleta quadrangle. Sacred lands within the project site was not clarified by any of the listed tribal contacts.

On December 19, 2019, Rincon sent letters to the ten Native American contacts identified by the NAHC in the area to request information on potential cultural resources in the project vicinity that may be impacted by project development. This outreach does not constitute formal Assembly Bill (AB) 52 consultation as required by CEQA. AB 52 consultation is performed between the lead government agency and California Native American tribes who have requested notification of projects in their traditional area. Appendix B provides the results of the outreach effort.

On January 9, 2020, Chairperson Freddie Romero of the Santa Ynez Band of Chumash Indians (on the behalf of Kenneth Kahn) stated the project site is located within an extremely sensitive archaeological area. Chairperson Romero requested construction plans for the project and recommended archaeological and Native American monitoring during ground disturbing activities.

On January 15, 2020, Ms. Pfeiffer replied to Chairperson Romero via email and stated that the construction plans had not yet been prepared and design options were still being considered.

4.4 Archival Research Methods

Archival research for this study was completed in December 2019. Research methodology focused on the review of a variety of primary and secondary source materials relating to the history and development of the area surrounding the APE. Sources included, but were not limited to, historic maps, aerial photographs, and written histories of the area. A list of repositories that were consulted to identify pertinent materials is included below.

- City of Goleta General Plan
- County of Santa Barbara Historic Landmarks and Historic Places of Merit Lists
- Historic aerial photographs accessed via the University of California Santa Barbara Map and Imagery Lab
- Historic topographic maps accessed via United States Geological Survey Topoviewer
- City directories accessed at Ancestry.com
- County of Santa Barbara Planning and Building records accessed via sbcountyplanning.org
- County of Santa Barbara Assessor records
- Santa Barbara *Independent*
- Historic context statements pertaining to the area surrounding the APE including the following:
- Other sources as noted in the references list

5 Field Survey

5.1 Methods

Rincon Cultural Resource Specialist Susan Zamudio-Gurrola, MHP, conducted a pedestrian survey of the project site on December 11, 2019. The built environment features on the project site, including buildings, structures and associated features, were visually inspected. Overall condition and integrity of these features were assessed, and potential character-defining features were noted and documented. Site characteristics and conditions were documented using notes and digital photographs which are maintained at the Rincon Santa Barbara office. The project site is almost entirely covered by the existing warehouse building, pavement, and landscaped areas, with ground visibility limited to approximately 5%. Therefore, a separate archaeological survey of the project site was not undertaken. Copies of the survey notes and digital photographs are maintained at the Rincon Ventura office.

5.2 Results

As a result of the field survey, one built environment property was identified within the project site. The property at 27 South La Patera Lane was assessed to determine if it qualifies as a historical resource as defined by CEQA. Discussed in further detail in the following section, the property was recorded and evaluated on California Department of Parks and Recreation 523 series forms included in Appendix C of this report.

27 South La Patera Lane

Property Description

The 2.48-acre property contains an approximately 36,000 square foot warehouse on the northern half of the parcel. Resting on a concrete foundation, the building has a rectangular footprint and a low-pitched gable roof clad with metal panels. The building appears to be steel-framed and is sheathed with vertical standing seam metal panels which are regularly spaced in an alternating tan and brown pattern around the building. Facing La Patera Lane, the east elevation features a concrete loading dock with concrete steps at one end and metal pole railings at top (Figure 4). The loading dock leads to five large metal roll-up doors and a single entry door which appears to be metal with a single glass pane. A flat metal roof projects from the wall plane to shelter the aforementioned doors. At the southeast corner of the building another flat roof projects from the wall plane and rounds the corner, sheltering windows and the primary entrance to the building. Slightly recessed, the entrance consists of a single aluminum and glass commercial door with a transom and sidelight (Figure 5).

Figure 4 East Elevation



Figure 5 South Elevation and Primary Entrance at Corner



Fenestration on the east and south elevations includes non-original vinyl-sash fixed and sliding windows. Additional secondary entries are located on the south elevation. One of the entries is recessed and contains a metal door with glazing. Further to the west is another entry consisting of a wheelchair-accessible concrete ramp with a metal pole railing, and an aluminum and glass commercial entry door which is sheltered by a small flat roof with pole supports. Two areas of chain link fencing with screening material conceal mechanical equipment against the south elevation (Figure 5). The north elevation facing the railroad does not contain any windows but displays several metal roll-up doors (Figure 6).

Figure 6 North Elevation



An addition/enclosure across the rear of the building is also sheathed with standing seam metal panels and is topped with a shed roof that is lower than the main building. A concrete ramp with metal pole railings leads to a recessed opening at the northwest corner of the building. No windows were observed on the west elevation, only two roll-up metal doors and mechanical equipment mounted on the wall surface (Figure 7 and Figure 8). Chain-link fencing with screening material encloses equipment near the southwest corner of the building.

Figure 7 Enclosed Area at Rear of Building



Figure 8 Closeup of West Elevation (Rear of Building)



Access to the loading dock on the east end of the building and to the paved storage yard at the rear of the building is limited by fencing and gates. Landscaped areas are located at the eastern edge and northeastern corner of the parcel, and include a variety of ornamental grasses and small trees, shrubs, succulents, and low ground cover (Figure 9 and Figure 10). A narrow strip of soil lines the northern edge of the building and is covered with a crawling vine plant that comes down from the chain link fence enclosing the front loading dock. Parking stalls located north of the building appear to be part of the railroad right-of-way and outside of the subject property's parcel boundaries.

Figure 9 Landscaping Next to Entry Driveway at Southeastern Edge of Property



Figure 10 Landscaping At Eastern Edge of Property



Development History

The warehouse building at 27 South La Patera Lane was developed in 1966 by Sears, Roebuck and Company's Pacific Coast Construction and Store Planning Department. Construction was completed in 1967, and the Sears Roebuck store opened at 3845 State Street the same year (Hayden 2019). The warehouse housed the store's service department. It appears prior to the warehouse being completed, the service department was located at 16 Helena Avenue (R.L. Polk 1967 and 1968).

As designed, the warehouse appeared much like it does today with the exception of a concrete pad and ramp spanning across the width of the building at its western end. This area was later enclosed. Letters reading "Sears Service Center" were mounted on the flat roof sheltering the primary entry. A spur track passed alongside the building's north elevation, and the Southern Pacific Railroad main line was located slightly to the north. Sears Roebuck also specified landscaping for areas along the eastern edge of the property; plans called for planting of juniper pfitzeriana blue, canary island pine, bronze leaf flax, prostrate juniper, and juniperus tamariscifolia (County of Santa Barbara, various).

By 1982 Sears Roebuck leased a portion of the property to a company called Russell Transportation who used it for the storage and service of buses. Records show the following year the company Raytheon occupied the property. Although a data gap exists due to unavailable city directories, Raytheon is known to have operated the warehouse between at least 1983 and 1985. Raytheon also had offices on the adjacent property at 33 South La Patera Lane (R.L. Polk & Co. 1983 and 1984-1985).

Raytheon was established in in Cambridge, Massachusetts in 1922, originally called the American Appliance Company. One of the company's early innovations was the S gas rectifier tube which

allowed the home radio to become an affordable, must-have household appliance. The company's technology and equipment contributed to the World War II effort, and afterwards the company began offering civilian products, the most famous being the microwave. Today Raytheon is one of the world's leading firms in technology for aerospace, defense and civil government markets (Raytheon 2019). In 1956 Raytheon established an Electromagnetic Systems Division in Goleta, developing facilities near Hollister Avenue and Coromar Drive (Raytheon 2019; Historic Resources Group 2017; Goleta Valley Chamber of Commerce 1971). By 1970 Raytheon, Delco and Santa Barbara Research Center had the three largest payrolls (in dollar terms) in Santa Barbara County (Graham 2008). Over the decades Raytheon has occupied various buildings in Goleta for different uses, including at 75 Coromar Drive, 6380 Hollister Avenue, 27 and 33 La Patera Lane, and 1 South Los Carneros (Historic Resources Group 2018; Goleta Valley Chamber of Commerce 1971; R.L. Polk & Co. 1983; Hoagland 2014).

By 1994 Direct Relief International, a non-profit organization that provides relief assistance throughout the world, had moved into the warehouse. Direct Relief completed various improvements including the enclosure of the area across the rear (west) elevation in 1997. The building interior has undergone alterations over the years to accommodate its different occupants, including the creation of restrooms, office and storage spaces, and stairs (County of Santa Barbara, various). Windows were replaced at an unknown date with vinyl sash. The spur track running north of the building is believed to have been removed between 1972 and 1980 (UCSB Map & Imagery Lab 1972 and 1980). Direct Relief vacated the property in 2018 and developed a new facility at a nearby location (Cooper 2017). The City of Goleta now owns the subject property (Holland 2018).

5.3 Historical Resources Evaluation

National Register and California Register Eligibility

The property at 27 South La Patera Lane is recommended ineligible for listing in the NRHP and CRHR. The property was developed in 1967 by Sears Roebuck and Company with a metal warehouse that was secondary to their retail store and housed their service department. The warehouse was one of many buildings developed by Sears Roebuck as part of their extensive system of stores and facilities. Over the decades, the property has continued to be used primarily as a storage warehouse and storage yard. Although it was occupied briefly by Raytheon, a company known for its work in technology and aerospace, the property was not Raytheon's first or primary facility, and Raytheon has occupied various properties in the Goleta area over the years. The property did not play a significant role in the development of the city, state or nation, and archival research did not demonstrate the subject property possesses any associations with significant events. Thus, it is recommended ineligible under Criteria A/1. In addition, archival research did not demonstrate the property possesses any associations with significant persons in our past. Therefore, it is recommended ineligible under Criteria B/2. The metal warehouse is a utilitarian and ubiquitous type of building that does not embody the distinctive characteristics of a type, period or method of construction, nor does it represent the work of a master or possess high artistic values. It does not represent a significant and distinguishable entity whose components lack individual distinction. As a result, the property is recommended ineligible under Criteria C/3. A review of available evidence and records search results did not indicate the property has the potential to be eligible under Criteria D/4 for its potential to yield information important to our understanding of human history or prehistory. Lastly, the property does not appear to be a contributor to a larger NRHP or CRHR-eligible historic district.

City of Goleta Historic Resource Designation Evaluation

The property at 27 South La Patera Lane is recommended ineligible for designation as a City of Goleta locally significant historic resource as it does not meet any of the necessary criteria. The property does meet City of Goleta criteria a, b, c, d or g for the same reasons described above under NRHP/CRHR criteria A/1, B/2, and C/3. The property is not part of a geographically definable area possessing a concentration of historic, prehistoric, or scenic properties that are unified aesthetically (Criteria e). Its location does not have unique physical characteristics or landscaping; nor can it be considered a view or vista representing an established visual feature of a neighborhood or community (Criteria f). The property does not meet Criteria h. Originally developed in 1967 by Sears Roebuck and Company as a service facility secondary to their main retail store in Santa Barbara, the property continued to be used primarily as a warehouse and storage yard over the subsequent decades. Geographically, it was developed in an area supporting a wide mix of uses, and the property does not reflect a significant geographical pattern associated with a particular era of settlement and growth. The property does not meet Criteria i as it is not one of a few remaining examples possessing distinguishing characteristics of an architectural, landscape architectural, or historical type. Lastly, the property does not meet Criteria j as it is primarily paved with small landscaped areas featuring common plants. It does not include rare or specimen plant materials associated with a particular period or style of landscape history.

Daniel Hill Adobe

The adjacent parcel south of the property, known as 33-35 South La Patera Lane, contains several buildings including the Daniel Hill Adobe (Figure 11). Dating to approximately 1850, the Hill Adobe is designated a City of Goleta locally significant historic resource and a Santa Barbara County Place of Historic Merit (City of Goleta 2006; County of Santa Barbara 2000-2018). The adobe's significance stems from it once having been the home of Daniel Hill, one of the earliest settlers in Goleta and owner of Rancho La Goleta. While documentation for the historic property is sparse, its boundaries are presumed to be the boundaries of Santa Barbara County APN 073-050-034. The 20th century office buildings on the parcel are presumed to be non-contributing to the property's significance.

Figure 11 Daniel Hill Adobe in Relation to Project Site and Proposed New Depot Building



Rincon visited the Hill Adobe property to assess the integrity of the historical resource and any potential impacts from the proposed project. The adobe's integrity has been significantly diminished due to the subdivision of the rancho it was once located on; incompatible surrounding development on its parcel (including the construction of a three-story office building, a one-story office building, and development of paved surface parking lots on the adobe property); and modern development on the surrounding properties. These alterations have affected the adobe's integrity of setting, feeling and association as seen in Figure 12 and Figure 13.

Figure 12 Hill Adobe and Three-Story Office Building Constructed to the Northeast



Figure 13 Hill Adobe, Parking Lot, and One-Story Office Building Constructed to the Rear



6 Findings and Recommendations

The cultural resources records search, review of the California HRI list, and background research performed for the project identified 70 cultural resources (14 prehistoric-era archaeological sites, one historic-era archaeological site and 55 historic-era buildings and structures) within the 0.5-mile search radius, none of which were located on the project site. The pedestrian field survey identified one built environment property within the project site, an industrial warehouse constructed in 1967 and located at 27 South La Patera Lane. As part of this cultural resources assessment, the property was evaluated for historical significance using federal, state, and local significance criteria. The property is recommended ineligible for listing in the NRHP and CRHR under all criteria. In addition, the property does not meet any of the eligibility criteria (a through j) for designation as a City of Goleta locally significant historic resource. Based on the results of this cultural resources assessment report, the property at 27 South La Patera Lane is not considered a historical resource and its demolition would not result in a significant adverse impact as defined CEQA.

Archival research also identified a locally-designated historical resource, the Daniel Hill Adobe, at 33-35 South La Patera Lane, adjacent to the project site. Under CEQA, a project may have a significant effect on the environment if the project would "cause a substantial adverse change in the significance of an historical resource" (CEQA Guidelines §15064.5(b)). Such changes can include physical demolition, destruction, relocation or alteration of an historical resource or its immediate surroundings such that the significance of an historical resource would be materially impaired. The proposed project would not cause direct or indirect impacts to the locally designated Daniel Hill Adobe. No physical changes or alterations are proposed to the Hill Adobe as a part of the proposed project. The adobe's integrity of setting, feeling and association has already been significantly diminished due to the subdivision of the original rancho on which it was located; surrounding incompatible development on its parcel; and modern development on the surrounding properties. The proposed new train depot would be constructed over 250 feet away from the adobe at the northern end of the project site, and would be largely out of view due to modern features including an existing fence and three-story building which visually and physically separate the adobe from the proposed new construction. The proposed new depot building would not require major underground components such as underground parking or pile driving; therefore, construction vibration is not expected to significantly impact the adobe building. Other proposed improvements, such as the relocation of the existing turnaround within La Patera Lane further to the south, are within the City's right-of-way which has been continuously improved and maintained with modern materials. Construction vehicle access will occur on the established roadway and not in close proximity to the adobe. In summary, the proposed project would not cause direct or indirect impacts to the Hill Adobe. Development of the project would not cause physical demolition, destruction, relocation or alteration of the historical resource or its immediate surroundings such that its significance would be materially impaired. The Hill Adobe would retain the ability to convey its historical significance, which justifies its inclusion in local registers of historical resources. Thus, with regards to built environment resources, Rincon recommends a finding of ***less than significant impact to historical resources as defined in § 15064.5*** of the CEQA guidelines

Based on the positive results of the SLF search coupled with the ethnographic settlement patterns of the Chumash, the area is considered sensitive for archaeological resources. However, this is not

an indication that archaeological resources exist within the project site itself. Although the Santa Ynez Band of Chumash Indians indicated the area to be sensitive for archaeological resources, the existing level of ground disturbance, results of the record search, and pedestrian field survey indicate a lack of archaeological resources on the project site itself and suggest a low potential for encountering subsurface archaeological deposits during ground disturbing activities.

Based on the results of this study, it is unlikely that any archaeological resources are present within the project site. Therefore, Rincon has not recommended monitoring for the current effort. However, unanticipated discoveries during project ground disturbance remain a possibility. Rincon presents the following recommended mitigation measure in case of the unlikely event of the unanticipated discovery of cultural resources during project construction. With adherence to this recommendation, Rincon recommends a finding of ***less than significant impact with mitigation to archaeological resources as defined in § 15064.5*** of the CEQA guidelines, which includes both unique and historical archaeological resources**.** The project is also required to adhere to regulations regarding the unanticipated discovery of human remains, detailed below.

6.1 Unanticipated Discovery of Cultural Resources

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) should be contacted immediately to evaluate the find. If the discovery proves to be eligible for listing on the California Register of Historical Resources, additional work may be warranted, such as data recovery excavation, Native American consultation, and archaeological monitoring to treat the find.

6.2 Human Remains

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). The MLD has 48 hours from being granted site access to make recommendations for the disposition of the remains. If the MLD does not make recommendations within 48 hours, the land owner shall reinter the remains in an area of the property secure from subsequent disturbance.

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Appendix A

Record Search Results

CHRIS Information Center Records Search Data Sheet

Project Name: Goleta Train Depot

Project Number: _____ Date: 12/12/19

Information Center: CCIC.

Search Radius: Half Mile: X One Mile: _____ Other: _____

USGS Quadrangle: Goleta

Public Land Survey System (PLSS): Township: 4N Range: 28W Section: 7, 8, 17, 18

County: Santa Barbara

Previously Recorded Sites: _____

Previous Studies: _____

National Register of Historic Places:	Copies:	Y	N
California Register of Historical Resources:	Copies:	Y	N
California Points of Historical Interest:	Copies:	Y	N
California Historical Landmarks List:	Copies:	Y	N
Archaeological Determinations of Eligibility:	Copies:	Y	N
California Historical Resources Inventory:	Copies:	Y	N

check database

Historic Maps: _____

Notes: _____

Table 1 Previous Cultural Resources Studies within 0.5-Mile of the Project Site

Report Number	Author	Year	Study	Relationship to Project Site
SR-00101	Bixler, A., S. Bolton, and R. Scupin	1979	*Cultural Resources Technical Reports for Proposed Development at Burroughs Corporation, Goleta, California*	Outside
SR-00103	Bixler, A., and J. Serena	1980	*Cultural Resources Technical Report of the Mitigation Excavations at Raytheon, SBA-58, Goleta, California*	Outside
SR-00104	Bixler, A. and R. Scupin	1979	*Phase One Archaeological and Historic Evaluation of Two Parcels in Goleta, California*	Outside
SR-00110	Coombs, G.	1977	*An Archaeological Field Reconnaissance of the Berkeley and Carlo Well Project Sites, Goleta, California*	Outside
SR-00113	Coombs, G.	1982	*An Archeological Records Search and Preliminary Field Reconnaissance of a Tract of Land Near the Intersection of San Pedro Creek and the Southern Pacific Railroad Tracks, Goleta, California*	Outside
SR-00116	Craig, S.	1985	*Archaeological Monitoring of Edison Site Demolition*	Outside
SR-00123	Craig, S.	1979	*Proposed Construction at 111 La Patera Lane, Goleta, California*	Outside
SR-00124	Craig, S.	1980	*Phase II Report: Site SBA-58, Bardex, Inc. Proposed Industrial Facility Development, 95 La Patera Lane, Goleta, California*	Outside
SR-00125	Craig, S.	1980	*Phase III Interim Report on Archaeological Testing in a Portion of SBA-58 Located at 95 La Patera Lane, Goleta, California, and Recommended Mitigation Measures for Proposed Development*	Outside
SR-00127	Craig, S.	1981	*Proposed Sewer Line from Lindmar Drive to a Structure Situated on Site SBA-58*	Outside
SR-00132	Craig, S.	1983	*Cultural Resources Element Santa Barbara Municipal Airport Expansion*	Outside
SR-00133	Craig, S.	1984	*Description of Archaeological Monitoring Conducted at Fairview Community Golf Course, August and September, 1984*	Outside
SR-00135	Craig, S. and S. Green	1984	*Archaeological Assessment of the Fairview Community Golf Course, Goleta, California*	Outside
SR-00136	Craig, S. and J. Grijalva	1979	*Phase I Letter Report: Site SBA-58 Bardex Inc. Proposed Industrial Facility Development 95 La Latera Lane, Goleta, California*	Outside
SR-00137	Craig, S. and S. Horne	1980	*Preliminary Evaluation of an Undeveloped Parcel of Land Located North of Lindmar and West of La Patera Lane, Goleta, California (APN 73-0.5-11)*	Outside

Report Number	Author	Year	Study	Relationship to Project Site
SR-00140	Earth Metrics, Inc.	1979	*Final Environmental Impact Report University Research Park (Raytheon as Occupant)*	Outside
SR-00151	Gerstle, A. and J. Serena	1982	*Archaeological Investigations at SBA-56*	Outside
SR-00158	Horne, S.	1982	*Letter Report: Cultural Resources at the Carlie W. Smith Building Site, 6144 Calle Real, Goleta, California*	Outside
SR-00160	Hudson, J.	1983	*Proposed SCE Santa Barbara Service Center Geotech Testing in the Vicinity of SBA-59*	Outside
SR-00164	Kornfeld, M., J.B. Serena, P.E. Snethkamp, J.S. Williams, J. Brandoff and B.D. Haley	1979	*Cultural Resource Technical Report for the Proposed University Research Park Building*	Outside
SR-00180	J. Moore, S. Sirkus, T. Hazeltine and P. Lagreze	1986	*Archaeological Investigations, Southern California Edison Service Center, Goleta, California*	Outside
SR-00181	H. Neff	1983	*Archaeological Monitoring at 22 South Fairview, Goleta, California*	Outside
SR-00217	D. White	1983	*Cultural Resources Survey of Potential Locations for the New Southern California Edison Company Santa Barbara Service Center, Rancho Los Dos Pueblos, Santa Barbara County, California*	Outside
SR-00228	Wilcoxon, L.	1979	*Letter Report: Archaeological Survey of Burroughs Corporation Santa Barbara Plant, Goleta, California*	Outside
SR-00239	Wilcoxon, L.	1982	*A Phase I/ Phase II Cultural Resource Evaluation for SBA-1703, The Carlie W. Smith Parcel 6144 Calle Real, Goleta, California*	Outside
SR-00243	Wilcoxon, L.	1985	*A Cultural Resource Evaluation for the Pactuco Commercial Building on David Love Place, Goleta, California*	Outside
SR-00246	Wilcoxon, L., J. Erlandson and D. Stone	1982	*Final Report Intensive Cultural Resources Survey for the Goleta Flood Protection Program, Santa Barbara County, California*	Outside
SR-00470	Waldron, W.	1984	*Archaeological Evaluation of a Proposed Lane Addition Project in Santa Barbara*	Outside
SR-00710	Wilcoxon, L.	1989	*Record Search: Proposed Emergency Generator and Storage Building, Santa Barbara Municipal Airport*	Outside
SR-00726	Berry, S.	1986	*Letter Report: Phase I Report, APN 77-223-17, Santa Barbara County*	Outside
SR-00731	Painted Cave Archaeological	1988	*Phase I Archaeological Investigation of the Proposed Santa Barbara News-Press Building, Goleta, California*	Outside

Report Number	Author	Year	Study	Relationship to Project Site
SR-00782	Hudson, J.	1983	*Letter Report: Proposed SCE Santa Barbara Service Center Geotech Testing in the Vicinity of SBA-59*	Outside
SR-01063	Snethkamp, P.E.	1991	*Assessment for Need for Phase I Prehistoric and Historic Archaeological Survey of the Parcel Associated with the T-Hangars Project at Santa Barbara Municipal Airport*	Outside
SR-01068	Cultural Resources Management Services	1990	*Cultural Resources Investigation of Proposed Modifications to Wastewater Facility and Associated Pipeline for Distribution of Reclaimed Water*	Outside
SR-01082	Peak and Associates	1988	*Class I Inventory for a Proposed Fiber Optic Communication Route, San Francisco to Los Angeles*	**Within**
SR-01181	Wilcoxon, L.	1991	*A Supplemental Phase I Cultural Resource Evaluation for Selected Portions of Goleta Water District's Proposed Reclaimed Water Pipeline Network, Goleta, California*	Outside
SR-01194	Santoro, L., G.A. Toren and T. Hazeltine	1991	*Phase II/III Cultural Resource Investigation 820 Botello Road, Santa Barbara, California*	Outside
SR-01419	Peak, A.S., M.A. Peak, R.A. Gerry and N.J. Neuenschwander	1992	*Consolidated Report: Cultural Resources Studies for the Proposed Pacific Pipeline Project*	**Within**
SR-01446	Peak and Associates	1988	*Class I Inventory and Clearance Report for the Proposed American Telephone and Telegraph Salinas to Los Angeles Fiberoptics Communication Route*	**Within**
SR-01447	Peak and Associates	1992	*Report on the Shovel Testing of 24 Prehistoric Period Cultural Resources and the Class 3 Reassessment-Pacific Coast Pipeline Santa Barbara, Ventura and Los Angeles Counties*	**Within**
SR-01449	Peak and Associates	1993	*Report on the Backhoe Trenching of Potential Cultural Resource Sites for the Pacific Pipeline Project, Santa Barbara and Ventura Counties, California*	**Within**
SR-01491	Interface Planning and Counseling Corporation	1979	*Environmental Assessment of the Burroughs Corporation Santa Barbara Plant Expansion*	Outside
SR-01492	Earth Metrics Incorporated	1980	*Draft Environmental Impact Report for the Burroughs Corporation Santa Barbara Plant Expansion*	Outside
SR-01530	Santoro, L. and G. Toren	1991	*Phase 1 and 1.5 Cultural Resource Study for E.G. & G. Energy Measurements Facility*	Outside
SR-01554	Glassow, M.	1993	*Note RE Larry Spanne's Phase 2 Investigations at SBA-58*	Outside

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SR-01620	Snethkamp, P.	1984	*Archaeological Monitoring of Construction of the Forest Service Building, 1644 Calle Real, Goleta, California*	Outside
SR-01672	Snethkamp, P.	1994	*Cultural Resource Evaluation, Maintenance Yard Pavement Reconstruction, Santa Barbara Municipal Airport, Santa Barbara, California*	Outside
SR-01673	Sheets, R. and D. Stone	1993	*Phase 1/ Phase 2 Historic and Archaeological Evaluations Buildings 301 Santa Barbara Municipal Airport*	Outside
SR-01676	Snethkamp, P.	1994	*Cultural Resources Evaluation Fuel Tank Farm Access Road Santa Barbara Municipal Airport, Santa Barbara, California*	Outside
SR-01711	Science Applications International Corporation	1994	*Archaeological Monitoring Report: Former Drive-In Theater, Hollister Avenue, Goleta, California*	Outside
SR-01730	Eisentraut, P.	1994	*Completion of Work, Low Density Locus, CA-SBA-56 Goleta, California*	Outside
SR-01746	Chartkoff, J.	1967	*Archaeological Resources on Fourteen Stream Channels in Coastal Santa Barbara County, California*	Outside
SR-01763	Desautels, N.	1993	*Cultural Assessment of the Santa Barbara Airport Tower Relocation Area, Goleta, California*	Outside
SR-01811	King, C.	1993	*Native American Placenames in the Vicinity of the Pacific Pipeline Part 2: Gaviota to the San Fernando Valley: Draft*	**Within**
SR-01812	Eisentraut, P.	1995	*Monitoring and Sample Processing Results for the Fairview/Hollister Utility Undergrounding Project, Goleta, California*	Outside
SR-01822	Wilcoxon, L.	1995	*Letter Report on Monitoring Goleta Recycling Center*	Outside
SR-01967	Wlodarski, R.J.	1997	*A Phase 1 Archaeological Study for Proposed Downstream Improvements, Plaza Los Carneros, Santa Barbara County, California*	Outside
SR-02094	Dames and Moore	1979	Untitled	Outside
SR-02128	Snethkamp, P.	1990	*Cultural Resources Summary, Propsoed Los Carneros Community Development, Santa Barbara County, California COE Permit No. 87-089*	Outside
SR-02142	Hannah, J.A.	1975	*Management and Preservation Plan for the Goleta Slough*	**Within**
SR-02272	Stone, D. and K. Rasmussen	1998	*Results of Archaeological Monitoring at Raytheon Systems Company, 6380 Hollister Avenue, Goleta, California*	Outside

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SR-02278	Science Applications International Corporation Environmental Programs Division and L. Pfeiffer	1998	*Phase I Cultural Resources Investigation Raytheon Facility Improvements, 6380 Hollister Avenue, Goleta, California*	Outside
SR-02280	Science Applications International Corporation	1998	*Middle Holocene Adaptation at CA-SBA-59 A Prehistoric Residential Site on the Goleta Slough Extended Phase I Survey and Phase II Significance Assessment*	Outside
SR-02355	Caltrans District 5, Office of Environmental Management	1997	*Historic Property Clearance Report for the Proposed Construction of a Station and Layover Facility for the San Diegan Intercity Passenger Rail Service in Goleta, California (RR Mile Post 361.7)*	Outside
SR-02361	Pavlik, R.	1996	*Historical Architectural Survey Report An Evaluation of the Goleta Lemon Association Packing Plant, Amtrak Goleta Layover Facility, La Patera Lane, Goleta, California*	Outside
SR-02433	Santoro, L. and G.A. Toren	1998	*Phase I Cultural Resource Survey of Proposed Modifications to the Sewer Transfer Station Santa Barbara Municipal Airport, Santa Barbara, California*	Outside
SR-02462	R. Foster, K. and D. Stone	1999	*Supplemental Phase II Archaeological Significance Assessment Investigation for the North Willow Springs Project, Goleta, California*	Outside
SR-02473	Carbone, L.	2000	*Phase I Archaeological Study for Proposed Construction of Railroad Siding, Ellwood Station to Los Carneros Areas, Goleta, Santa Barbara County, California*	Outside
SR-02507	Romani, J.	1999	*Archaeological Monitoring at the Airline Waste Transfer Station, Santa Barbara Municipal Airport, Goleta, California*	Outside
SR-02523	Anderson, K.	2000	*Final Archaeological Monitoring Results for Santa Barbara Airport Safety Area Grading Project*	Outside
SR-02524	Anderson, K.	1996	*Cultural Resources Survey for Santa Barbara Municipal Airport Safety Grading and Helicopter Parking Area Projects*	Outside
SR-02596	Lapin, P.	2000	*Results of the Extended Phase I Survey of the Santa Barbara Forensics Laboratory, City and County of Santa Barbara, California*	Outside
SR-02655	Carbone, L.	2001	*Phase I Survey and Limited Phase II Archaeological Testing Program at Site SBA-58, 133 South La Patera Lane, Goleta, County of Santa Barbara, California*	Outside
SR-02661	Scott, K. and R. Denniston	2001	*Journal of the 2001 Archaeological Survey and Site Recording at Lake Los Carneros Park*	Outside

Report Number	Author	Year	Study	Relationship to Project Site
SR-02802	Getchell, B. and J. Atwood	2002	*Cultural Resources Inventory for the Proposed Federal Aviation Administration Airport Surveillance Radar, Model 11 (ASR-11) to Serve the Santa Barbara Municipal Airport, Santa Barbara County, California*	Outside
SR-02829	Duke, C.	2002	*Cultural Resource Assessment for AT&T Wireless Services Facility No. SB56, Santa Barbara County, California*	Outside
SR-02886	Munns, A.	2001	*Extended Phase I Archaeological Improvements for Proposed Parking Lot Improvements to Lot 20 (APN 073-08-63) Santa Barbara Airport*	Outside
SR-02969	Santoro, L.	1995	*Preliminary Results of a Boundary Definition Program for Los Carneros Community Development Project*	Outside
SR-02997	Lebow, C., R. McKim, D. Harro, A. Munns, C. Hodges and C. Denardo	2003	*Archaeological Investigations at CA-SBA-59 in the Vicinity of Goleta Slough Santa Barbara County, California*	Outside
SR-03002	Gerber, J. and C. Locke	2003	*Archaeological Investigations for the Stratman Apron Project, Santa Barbara Municipal Airport, Goleta, California*	Outside
SR-03060	URS Corporation	2003	*Phase I Archaeological Resources Report Firestone Ditch Improvement Project*	Outside
SR-03112	Luhnow, G.G., and R.D. Mason	2000	*Archaeological Testing Program Report Level 3 Long Haul Project: WS06 Presence/Absence Testing at PA-60-East Santa Barbara County, California*	Outside
SR-03118	Luhnow, G.G., and R.D. Mason	2000	*Archaeological Test Program Report Level 3 Long Haul Project: WS06 Presence/Absence Testing at CA-SBA-56 Santa Barbara County, California*	Outside
SR-03215	Wise, M.J.	2006	*Archaeological Survey Report for the Southern California Edison Company Replacement of 16 Deteriorated Poles on the Professor 16kV, Duffer, 16kV, Milpas 16kV, Garden 16kV and Sheffield 16kV Circuits, Santa Barbara County, California (WO# 6049-4800; AI# 5-4834)*	Outside
SR-03234	Gerber, J.L.	2004	*Phase I Archaeological Survey Santa Barbara Airport Security Upgrade Project, Santa Barbara, California*	Outside
SR-03235	Gerber, J.L.	2004	*Extended Phase I Archaeological Survey Santa Barbara Airport T-Hangar Project, Santa Barbara, California*	Outside
SR-03524	Applied Earth Works, Inc.	2006	*Archaeological Monitoring Santa Barbara Airport Security Upgrade Project, Santa Barbara, California*	Outside
SR-03556	Groza, R.	2006	*Cultural Resources and Environmental Monitoring for the Santa Barbara Forensic Laboratory Project*	Outside

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SR-03599	Haslouer, L.G. and Clayton L.	2006	*Santa Barbara Airport Absence/Presence Testing at the Parcel Northeast of David Love and Robert Kiester Places, Santa Barbara, California*	Outside
SR-04014	Lebow, C., L.G. Haslouer and K. Osland	2006	*Phase I Archaeological Resources Report – Rental Car Quick Turn Around Facility, 25 David Love Place, Santa Barbara Airport, Santa Barbara, California*	Outside
SR-04058	Sikes, N., C. Arrington, B. Bass, C. Corey, K. Hunt, S. O'Neil, C. Pruett, T. Sawyer, M. Tuma, L. Wagner and A. Wesson	2006	*Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project, State of California*	**Within**
SR-040581	SWCA Environmental Consultants	2006	*Appendix A: Qwest Fiber Optic Cultural Resources Protocols; Appendix B: Native American Contact Table and Sample Consultation Letter*	Outside
SR-04111	Yost, S.W., I. Strudwick, D. Ing, R. Klein, W. R. Miller, E. Black, D. Jones-Bartholomew, J.M. Yost and H.H. Higgins	2001	*Final Report on Cultural Resource Monitoring Level (3) Long Haul Fiber Optic Running Line, San Luis Obispo to Burbank, California, San Luis Obispo, Santa Barbara, Ventura and Los Angeles Counties*	**Within**
SR-04111A	"Various" (authors' names not listed)	ND	*Appendix A – Cultural Resource Personnel; Appendix B – Native American Monitoring Personnel; Appendix C – Confidential – Periodic Progress Reports, Miscellaneous Correspondence and Variances with Attachments*	Outside
SR-04111B	Shepard, R.S. and R.D. Mason	2001	*Cultural Resources Records Search and Field Survey and Paleontologic Resources Literature Review Report for Level 3 Fiber Optic Project: Highway 1 Workaround, Santa Barbara County, California*	Outside
SR-04111C	Shepard, R.S. and S. David	2000	*Cultural Resources Survey Report for Level 3 Long Haul Fiver Optic Project: WS06 Carpinteria Workaround, Foothill Road Alternative, in the City of Carpinteria and Adjacent Unincorporated Areas, Santa Barbara and Ventura Counties, California*	Outside
SR-04397	Haslouer, L.G.	2008	*Archaeological Monitoring for the Airfield Safety Project, Santa Barbara, California*	Outside
SR-04443	Carbone, L.A.	2009	*A Phase I Archaeological Survey and Resource Assessment for the Goleta Sanitary District Replacement of Sewer Force Main, City of Goleta, Santa Barbara County, California*	Outside
SR-04543	Science Applications International Corporation	1996	*Archaeological Assessment of Unexpected Finds at CA-SBA-56, Goleta, California*	Outside

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SR-04555	Peterson, R. and A. Munns	2008	*Las Vegas and San Pedro Creeks Capacity Improvement Project in Goleta, Santa Barbara County, California*	Outside
SR-04588	Carbone, L.	2010	*An Archaeological Monitoring Program Conducted for the Goleta Sanitary District, Firestone Road Lift Station Sewer Line Replacement, Goleta, County of Santa Barbara, California*	Outside
SR-04598	Beedle, P.	2008	*Historical Resources Evaluation Report: Las Vegas and San Pedro Creeks Capacity Improvement Project in Goleta, Santa Barbara County, California*	Outside
SR-04630	Stone, D.	2009	*Archaeological Survey Report: Goleta Valley Beautiful 101 Tree Planting Project, City of Goleta, California*	Outside
SR-04638	Wolf, J.	2010	*Santa Barbara County Flood Control and Water Conservation District Flood Control Maintenance Activities in the Goleta Slough, Draft Subsequent EIR SCH No. 2000031092*	Outside
SR-04644	Hannahs, T. and N. Farrell	2011	*Site History and Archaeological Assessment of CA-SBA-58 With Mitigation Strategies to Address Potential Impacts Resulting from the Construction of the Marriott Residence Inn at 6300 Hollister Avenue, Goleta, California*	Outside
SR-04670	Peterson Jr., R.R. and A.M. Munns	2008	*Archaeological Survey Report, Las Vegas and San Pedro Creeks Capacity Improvement Project in Goleta, Santa Barbara County, California, 05-SB-101, KP 36.2-36.8/PM 22.5-22.9, EA 0G0700*	Outside
SR-04696	Stone, D. and K. Victorino	2009	*Phase 2 Archaeological Investigation CA-SBA-60. Las Vegas-San Pedro Creeks Capacity Improvements Project, City of Goleta, City of Santa Barbara, Santa Barbara County, California. 05-SB-101. PM 22.5-22.9, EA 0G700*	Outside
SR-04715	Leftwich, B. and C. Woodman	2011	*Historic Property Survey Report for the Los Carneros Road Overhead Bridge Replacement Project, City of Goleta, County of Santa Barbara, California. District 5 – Santa Barbara – Highway 101 – PM 23.6 BRLS-5481 (005)*	Outside
SR-04715A	Woodman, C. and B. Leftwich	2011	*Archaeological Survey Report for the Los Carneros Road Overhead Bridge Replacement Project*	Outside
SR-04715B	Woodman, C.	2010	*Environmentally Sensitive Area Action Plan for the Los Carneros Road Overhead Bridge Replacement Project*	Outside
SR-04715C	Caltrans	2010	*Caltrans Historic Bridge Inventory Sheet for Bridge 51C-0168*	Outside
SR-04715D	Siepel, N.	2011	*Finding of Effect Notification for the Los Carneros Overhead Bridge Replacement Project (OHP Report)*	Outside

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SR-04715E	Leftwich, B.	2010	*Los Carneros Road Overhead Bridge Replacement Project (2010)*	Outside
SR-04724	Stone, D.	2008	*Phase I Archaeological Investigation ISSB Community Center, Corner Calle Real and Los Carneros Road, Goleta, California*	Outside
SR-04891	Victorino, K. and D. Stone	2008	*Supplemental Extended Phase I Archaeological Investigation, CA-SBA-58, Marriott Residence Inn, 6300 Hollister Avenue, City of Goleta, California*	Outside
SR-04895	Victorino, Ken and David Stone	2010	*Extended Phase I Archaeological Investigation, CA-SBA-58, 93 South La Patera Lane, Goleta, California*	Outside
SR-04985	Stone, David	2013	*Archaeological Monitoring Letter Report, Direct Relief International, 27 North La Patera Road, Goleta*	Adjacent
SR-04993	Stone, D. and K. Victorino	2012	*Extended Phase I Archaeological Investigation, Proposed Sidewalk Improvement, South La Patera Lane, Goleta, California*	Outside
SR-05025	Conway, T.	2009	*An Archaeological Surface Survey and Updated Records Search for the Goleta Slough Flood Control Dredging Project, Goleta, Santa Barbara County, California*	Outside
SR-05101	Hernandez, N., D.M. Meyer and Various	2013	*EMW-2011-FO-02850 (13451) Santa Barbara City Fire Department (Installation of Pneumatic Diesel Exhaust Ventilation Systems in City-Owned Fire Stations*	Outside
SR-05101B	Unknown	2009	*El Pueblo Viejo Design Guidelines*	Outside
SR-05101C	Unknown	2013	*Historical/Archaeological Assessments of City Fire Station Nos. 2-8*	Outside
SR-05109	Stone, D. and K. Victorino	2014	*Final Phase 3 Data Recovery Program: CA-SBA-56, Willow Springs II, Goleta*	Outside
SR-05109A	Bornyasz, M., S. Harris, C.E. Skinner, T.L. Joslin, A.K. Rogers, J.J. Thatcher, and Various	2014	*Appendices A-G: (A) CA-SBA-56 Phase 3 Data Recovery Program Unit Level Forms; (B) Soils Geomorphology Assessment for Archaeological Data Recovery Investigation, Willow Springs II Project, Archaeological Site CA-Sba-56 (Bornyasz 2010); (C) CA-SBA-56 Phase 3 Data Recovery Program General Catalog; (D) Flaked Stone Artifact Analysis (Harris 2013); (E) X-Ray Fluorescence Analysis and Obsidian Hydration Measurement of Artifact Obsidian from CA-SBA-56 (Skinner and Thatcher 2013); (F) CA-SBA-56 Faunal Analysis for the Willow Spring Project Archaeological Excavations (Joslin 2013); (G) Obsidian Hydration Dating (OHD) Analysis for Site CA-SBA-56 (Rogers 2013)*	Outside

Source: Central Coast Information Center 2019

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
SR-00101		1979	Bixler, A., Bolton, S., and Scupin, R.	Cultural Resources Technical Report for Proposed Development at Burroughs Corporation, Goleta, California.		42-000058
SR-00103	Other - E16.36	1980	Bixler, A. and Serena, J.	Cultural Resources Technical Report of the Mitigation Excavations at Raytheon, SBa-58, Goleta, California.		42-000058
SR-00104		1979	Bixler, Albert and Scupin, Rayond	Phase One Archaeological and Historic Evaluation of Two Parcels in Goleta, California.	Social Process Research Institute	
SR-00110		1977	Coombs, G.	An Archeological Field Reconnaissance of the Berkeley and Carlo Well Project Sites, Goleta, California.		
SR-00113		1982	Coombs, G.	An archaeological records search and preliminary field reconnaissance of a tract of land near the intersection of San Pedro Creek and the Southern Pacific Railroad Tracks, Goleta, CA		42-000060
SR-00116		1985	Craig, S.	Archaeological Monitoring of Edison Site Demolition.		42-000058, 42-000059
SR-00123	Other - E16.40	1979	Craig, S.	Proposed Construction at 111 La Patera Lane, Goleta, California.		42-000058
SR-00124		1980	Craig, S.	Phase II report: site SBa-58, Bardex, Inc. proposed industrial facility development, 95 La Patera Lane, Goleta, CA.		42-000058
SR-00125		1980	Craig, S.	Phase III interim report on archaeological testing in a portion of SBa-58 located at 95 La Patera Lane, Goleta, California, and recommended mitigation measures for proposed development.		42-000058
SR-00127		1981	Craig, S.	Proposed sewer line from Lindmar Drive to a structure situated on site SBa-58.		42-000058
SR-00132		1983	Craig, S.	Cultural Resources Element Santa Barbara Municipal Airport Expansion.		
SR-00133		1984	Craig, S.	Description of Archaeological Monitoring Conducted at Fairview Community Golf Course, August and September, 1984		
SR-00135		1984	Craig, S. and Green, S.	Archaeological Assessment of the Fairview Community Golf Course, Goleta, CA.		42-000060

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SR-00136		1979	Craig, S. and Grijalva, J.	Phase 1 Letter Report: Site SBa-58 Bardex Inc. Proposed Industrial Facility Development 95 La Patera Lane, Goleta, California.		42-000058
SR-00137		1980	Craig, S. and Horne, S.	Preliminary evaluation of an undeveloped parcel of land located north of Lindmar and west of La Patera Lane, Goleta, CA. (APN 73-0.5-11).		42-000058
SR-00140	Other - E16.87	1979	Earth Metrics, Inc.	Final Environmental Impact Report University Research Park (Raytheon as Occupant).		42-000058
SR-00151		1982	Gerstle, Andrea and Serena, Jeffery	Archaeological investigation at SBA-56	Social Process research institute, UCSB	42-000056
SR-00158		1982	Horne, S.	Letter Report: Cultural resources at the Carlie W. Smith Bldg Site, 6144 Calle Real, Goleta CA.		42-001703
SR-00160		1983	Hudson, J.	Proposed SCE Santa Barbara Service Center Geotech Testing in the Vicinity of SBa-59		42-000059
SR-00164		1979	Marcel Kornfeld, Jeffery B. Serena, .Pandora E. Snethkamp, Jack S. Williams, Joan Brandoff, and Brian D. Haley	Cultural Resource Technical Report for the Proposed University Research Park Building	Non-given	42-000058
SR-00180		1986	Moore, J., Sirkus, S., Hazeltine, T., and Lagreze, P.	Archaeological Investigations, Southern CA. Edison Service Center Goleta, CA.		42-000058, 42-000059
SR-00181		1983	Neff, H.	Archaeological Monitoring at 22 South Fairview, Goleta CA.		42-000060
SR-00217		1983	White, D.	Cultural Resources Survey of Potential Locations for the New Southern California Edison Compant Santa Barbara Service Center, Rancho Los Dos Pueblos, Santa Barbara County, California.		42-000059
SR-00228		1979	Wilcoxon, L.	Letter Report: Archaeological Survey of Burroughs Corporation Santa Barbara Plant Goleta, California.		42-000058
SR-00239		1982	Wilcoxon, L.	A Phase I / Phase II cultural resource evaluation for SBa-1703, the Carlie W. Smith parcel 6144 Calle Real Goleta, California		42-001703

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
SR-00243		1985	Wilcoxon, L.	A Cultural Resource Evaluation for the Pactuco Commercial Building on David Love Place, Goleta, California		42-000059
SR-00246		1982	Wilcoxon, L., Erlandson, J., and Stone, D.	Final Report Intensive Cultural Resources Survey for the Goleta Flood Protection Program Santa Barbara County, California		42-000001, 42-000041, 42-000042, 42-000043, 42-000044, 42-000046, 42-000048, 42-000049, 42-000052, 42-000054, 42-000056, 42-000057, 42-000060, 42-000061, 42-000062, 42-000063, 42-000064, 42-000067, 42-000137, 42-000143, 42-000169, 42-000562, 42-000589, 42-001158, 42-001203, 42-001207, 42-001548, 42-001550, 42-001556, 42-001568, 42-001569, 42-001570, 42-001588
SR-00470		1984	Waldron, W.	Archaeological Evaluation of a Proposed Lane Addition Project in Santa Barbara.		
SR-00710		1989	Wilcoxon, L.	Record Search: Proposed Emergency Generator and Storage Building, Santa Barbara Municipal Airport		
SR-00726		1986	Berry, S.	Letter Report: Phase I report, APN 77-223-17, Santa Barbara County.		
SR-00731		1988	Painted Cave Archaeological	Phase I archaeological investigation of the proposed Santa Barbara News-Press Building, Goleta, California.		
SR-00782		1983	Hudson, J.	Letter Report: Proposed SCE Santa Barbara Service Center Geotech Testing in the Vicinity of SBA-59.		42-000059
SR-01063		1991	Snethkamp, P.	Assessment for need for phase 1 prehistoric and historic archaeological survey of the parcel assocciated with the T-Hangars project at Santa Barbara Municipal Airport		
SR-01068		1990	Cultural Resources Management Services	Cultural resources investigation of proposed modifications to wastewater facility and associated pipeline for distribution of reclaimed water		42-000046, 42-000048, 42-000049
SR-01181		1991	Wilcoxon, L.	A Supplemental Phase I Cultural Resource Evaluation for Selected Portions of Goleta Water District's Proposed Reclaimed Water Pipeline Network, Goleta, California		

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
SR-01194		1991	Santoro, L., Toren, G., and Hazeltine, T.	Phase II/III Cultural Resource Investigation 820 Botello Road, Santa Barbara, California		42-000059
SR-01419		1992	Ann S. Peak, Melinda A. Peak, Robert A. Gerry, Neal J. Neuenschwander, and	Consolidated Report: Cultural Resources Studies for the Proposed Pacific Pipeline Project	Peak and Associates	42-000001, 42-000002, 42-000012, 42-000013, 42-000016, 42-000017, 42-000018, 42-000019, 42-000023, 42-000024, 42-000028, 42-000034, 42-000038, 42-000039, 42-000054, 42-000057, 42-000060, 42-000070, 42-000093, 42-000100, 42-000116, 42-000142, 42-000190, 42-001093, 42-001156, 42-001157, 42-001489, 42-001506, 42-001539, 42-001578, 42-001653, 42-001655, 42-001703, 42-001717, 42-001750, 42-001776, 42-001856, 42-001870, 42-001915, 42-001958, 42-002179, 42-002187
SR-01447		1992	None given	Report on the Shovel Testing of 24 Prehistoric Period Cultural Resources and the Class 3 Reassessment-Pacific Coast Pipeline Santa Barbara, Ventura, and Los Angeles Counties	Peak and Associates	42-000012, 42-000038, 42-000057, 42-000060, 42-000070, 42-000076, 42-000078, 42-000079, 42-000086, 42-000087, 42-000088, 42-000131, 42-000142, 42-000144, 42-001151, 42-001204, 42-001213, 42-001326, 42-001506, 42-001655, 42-001676, 42-001731, 42-001856, 42-001870, 42-001900, 42-001915, 42-001921, 42-002153, 42-002190
SR-01449		1993	Peak and Associates	Report on the Backhoe Trenching of Potential Cultural Resource Sites for the Pacific PipeLine Project Santa Barbara and Ventura Counties, California		
SR-01491		1979	Interface Planning and Counseling Corperation	Environmental Assessment of the Burroughs Corporation Santa Barbara Plant Expansion		42-000058
SR-01492		1980	Earth Metrics Incorporated	Draft Environmental Impact Report for the Burroughs Corporation Santa Barbara Plant Expansion		42-000058
SR-01530		1991	Santoro, L. and Toren, G.	Phase 1 and 1.5 Cultural Resource Study for E.G.& G. Energy Measurements Facility		42-000059
SR-01554		1993	Glassow, M.	Note RE Larry Spanne's Phase 2 Investigations at SBA-58		42-000058, 42-000059

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SR-01620		1984	Snethkamp, P.	Archaeological Monitoring of Construction of the Forest Service Building, 1644 Calle Real, Goleta, California		42-001703
SR-01672		1994	Snethkamp, P.	Cultural Resources Evaluation, Maintenance Yard Pavement Reconstruction, Santa Barbara Municipal Airport, Santa Barbara, California.		
SR-01673		1993	Sheets, R. and Stone, D.	Phase 1/Phase 2 Historic and Archaeological Evaluations Buildings 301 Santa Barbara Municipal Airport		
SR-01676		1994	Snethkamp, P.	Cultural Resources Evaluation Fuel Tank Farm Access Road Santa Barbara Municipal Airport, Santa Barbara, California		
SR-01711		1994	Science Applications International Corporation	Archaeological Monitoring Report: Former Drive-In Theater, Hollister Avenue, Goleta, CA		42-000060
SR-01730		1994	Eisentraut, P.	Completion of Work, Low Density Locus, CA-SBA-56 Goleta, CA		42-000056
SR-01746		1967	Chartkoff, J.	Archaeological Resources on Fourteen Stream Channels in coastal Santa Barbara County, California		42-000020, 42-000021, 42-000022, 42-000023, 42-000024, 42-000027, 42-000028, 42-000033, 42-000034, 42-000044, 42-000045, 42-000046, 42-000047, 42-000048, 42-000049, 42-000055, 42-000056, 42-000060, 42-000062, 42-000063, 42-000066, 42-000137
SR-01763		1993	Desautels, N.	Cultural Assessment of the Santa Barbara Airport Tower Relocation Area, Goleta, CA		
SR-01812		1995	Eisentraut, P.	Monitoring and Sample Processing Results for the Fairview/Hollister Utility Undergraounding Project Goleta, California		42-000060
SR-01822		1995	Wilcoxon, L.	Letter Reprot on Monitoring Goleta Recycling Center		
SR-01967		1997	Wlodarski, Robert J.	A Phase 1 Archaeological Study for Proposed Downstream Improvements, Plaza Los Carneros, Santa Barbara County, California		
SR-02094		1979	Dames and Moore			42-000137
SR-02128		1990	Snethkamp, Pandora	Cultural Resources Summary, Proposed Los Carneros Community Development, Santa Barbara County, CA, COE Permit No. 87-089		42-000052, 42-000056

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
SR-02272		1998	Stone, David and Rasmussen, K.	Results of Archaeological Monitoring at Raytheon Systems Company, 6380 Hollister Avenue, Goleta, CA		42-000057
SR-02278		1998	SAIC Environmental Programs Division and Pfeiffer, Laurie	Phase 1 Cultural Resources Investigation Raytheon Facility Improvements, 6380 Hollister Avenue, Goleta, CA		
SR-02280		1998	Science Applications International Corporation	Middle Holocene Adaptations at CA-SBA-59 A prehistoric Residential Site on the Goleta Slough Extended Phase I Survey and Phase II Significance Assessment		42-000059
SR-02355	Caltrans - 75-806-633701-32001	1997	Caltrans District 5, Office of Environmental Management	Historic Property Clearance Report for the Proposed Construction of a Station and Layover Facility for the San Diegan Intercity Passenger Rail Service in Goleta, California (RR Mile Post 361.7)	Caltrans, District 5, Office of Environment Management	
SR-02361	Caltrans - E.A. 75-806-633701	1996	Pavlik, Robert	Historical Architectural Survey Report An Evaluation of the Goleta Lemon Association Packing Plant, Amtrak Goleta Layover Facility, La Patera Lane, Goleta California	Caltrans	
SR-02433		1998	Santoro, Lori and Toren, A. George	Phase I Cultural Resource Survey of Proposed Modifications to the Sewer transfer station Santa Barbara Municipal Airport, Santa Barbara, California	Compass Rose	
SR-02462		1999	Rasmussen Foster, Karen and Stone, David	Supplemental Phase II Archaeological Significance Assessment Investigation for the North Willow Springs Project, Goleta, CA	Science Applications International Corporation	42-000056
SR-02473	Other - Job Number WP-052-20	2000	Carbone, Larry	Phase 1 Archaeological Study for Proposed Construction of Railroad Siding, Ellwood Station to Los Carneros Areas, Goleta, Santa Barbara County, California	Western Points	42-002586
SR-02507		1999	Romani, John	Archaeological Monitoring at the Airline Waste Transfer Station, Santa Barbara Municipal Airport, Goleta, CA		
SR-02523		2000	Anderson, Karin	Final Archaeological Monitoring Results for Santa Barbara Airport Safety Area Grading Project		
SR-02524		1996	Anderson, Karin	Cultural Resources Survey for Santa Barbara Municipal Airport Safety Grading and Helicopter Parking Area Projects		

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
SR-02596		2000	Lapin, Philippe	Results of the Extended Phase I Survey of the Santa Barbara Forensics Laboratory, City and County of Santa Barbara, CA		
SR-02655		2001	Carbone, Larry	Phase I Survey and Limited Phase II Archaeological Testing Program at Site SBA-58, 133 South La Patera Lane, Goleta, County of Santa Barbara, CA	Western Points	42-000058
SR-02661		2001	Scott, Kevin and Denniston, Richard	Journal of the 2001 Archaeological Survey and Site Recording at Lake Los Carneros Park	none given	42-001574, 42-003627
SR-02802		2002	Getchell, Barbie and Atwood, John	Cultural Resources Inventory for the Proposed Federal Aviation Administration Airport Surveillance Radar, Model 11 (ASR-11) to serve the Santa Barbara Municipal Airport, Santa Barbara County, California	Pacific Archaeological Sciences Team	
SR-02829		2002	Duke, Curt	Cultural Resource Assessment for AT&T Wireless Services Facility No. SB56, Santa Barbara County, CA	LSA Associates, Inc.	
SR-02886		2001	Munns, Ann	Extended Phase 1 Archaeological Improvements for Proposed Parking Lot Improvements to Lot 20 (APN 073-08-63) Santa Barbara Airport	Applied Earthworks Inc.	
SR-02969		1995	Santoro, Loren	Preliminary Results of a Boundary Definition Program for Los Carneros Community Development Project		42-000056
SR-02997		2003	Lebow, Clayton, Rebecca McKim, Douglas Harro, Ann Munns, Charles Hodges, and Carole Denardo	Archaeological Investigations at CA-SBA-59 in the Vicinity of Goleta Slough, Santa Barbara County, California		42-000059
SR-03002		2003	Gerber, Joyce and Charles Locke	Archaeological Investigation for the Stratman Apron Project, Santa Barbara Municipal Airport, Goleta, California		
SR-03060		2003	URS Corporation	Phase 1 Archaeological Resources Report Firestone Ditch Improvment Project		42-000058
SR-03112		2000	Luhnow, Glennda G. and Mason, Roger D.	Archaeological Testing Program Report Level 3 Long Haul Project: WS06 Presence/Absence Testing at PA-60-East Santa Barbara County, California	Chambers Group, Inc.	

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
SR-03118		2000	Luhnow, Glennda G. and Mason, Roger D.	Archaeological Test Program Report Level 3 Long Haul Project: WS06 Presence/Absence Testing at CA-SBA-56 Santa Barbara County, California	Chambers Group, Inc.	42-000056
SR-03215		2006	Wise, Michael J.	Archaeological Survey Report for the Southern California Edison Company Replacement of 16 Detetiorated Poles on the Professor 16Kv, Duffer, 16kV, Milpas 16kV, Garden 16kV and Sheffield 16kV Circuits, Santa Barbara County, California (WO# 6049-4800; AI# 5-4834)	Mooney Jones & Stokes	42-003742
SR-03234		2004	Gerber, Joyce L.	Phase 1 Archaeological Survey Santa Barbara Airport Security Upgrade Project Santa Barbara, California	Applied EarthWorks, Inc.	
SR-03235		2004	Gerber, Joyce L.	Extended Phase 1 Archaeological Survey Santa Barbara Airport T-Hangar Project Santa Barbara, California	Applied EarthWorks, Inc.	42-003724
SR-03524		2006	Applied EarthWorks, Inc.	Archaeological Monitoring Santa Barbara Airport Security Upgrade Project Santa Barbara, California		
SR-03556		2006	Groza, R.	Cultural Resources and Enviromental Monitoring for the Santa Barbara Forensic Laboratory Project		
SR-03599		2006	Haslouer, Leann G and Clayton Lebow	Santa Barbara Airport Absence/Presence testing at the Parcel Northeast of David Love and Robert Kiester places, Santa Barbara, California		
SR-04014		2006	Lebow, Clayton, Leeann G. Haslouer, and Karen Osland	Phase 1 Archaeological Resources Report - Rental Car Quick Turn-Around Facility, 25 David Love Place, Santa Barbara Airport, Santa Barbara, California		

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
SR-04058		2006	Nancy Sikes, Cindy Arrington, Bryon Bass, Chris Corey, Kevin Hunt, Steve O'Neil, Catherine Pruett, Tony Sawyer, Michael Tuma, Leslie Wagner, and Alex Wesson	Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project, State of California - SEE ALSO CA-SLO-6082	SWCA Environmental Consultants	42-000006, 42-000007, 42-000012, 42-000018, 42-000019, 42-000024, 42-000039, 42-000054, 42-000060, 42-000076, 42-000078, 42-000080, 42-000082, 42-000086, 42-000088, 42-000089, 42-000093, 42-000094, 42-000097, 42-000106, 42-000142, 42-000144, 42-000396, 42-000553, 42-001151, 42-001156, 42-001157, 42-001204, 42-001326, 42-001492, 42-001493, 42-001494, 42-001495, 42-001506, 42-001670, 42-001676, 42-001731, 42-001766, 42-001807, 42-001808, 42-001870, 42-001872, 42-001878, 42-001879, 42-001881, 42-001887, 42-001914, 42-001916, 42-001921, 42-001958, 42-001969, 42-001990, 42-002178, 42-002179, 42-002189, 42-002441, 42-002442, 42-002586, 42-002587, 42-002588, 42-002753
SR-040581		2006	none given	Appendix A: Qwest Fiber Optic Cultural Resources Protocols; Appendix B: Native American Contact Table and Sample Consultation Letter	SWCA Environmental Consultants	
SR-04111		2001	Stephen W. Yost, Ivan Strudwick, David Ing, Roger Klein, W. Randall Miller, Elisha Black, Dee Jones-Bartholomew, Joan M. Yost, and Howard H. Higgins	Final Report on Cultural Resource Monitoring Level (3) Long Haul Fiber Optic Running Line, San Luis Obispo to Burbank, California, San Luis Obispo, Santa Barbara, Ventura and Los Angeles Counties	TRC	42-000006, 42-000018, 42-000019, 42-000024, 42-000038, 42-000056, 42-000083, 42-000084, 42-000088, 42-000090, 42-000091, 42-000093, 42-000106, 42-000108, 42-000125, 42-000127, 42-000142, 42-001017, 42-001018, 42-001151, 42-001204, 42-001213, 42-001670, 42-001672, 42-001676, 42-001707, 42-001708, 42-001731, 42-001766, 42-001921, 42-001969, 42-001992, 42-001996, 42-002178, 42-002357, 42-002587, 42-003014, 42-040742
SR-04111A			various	Appendix A - Cultural Resource Personnel; Appendix B - Native American Monitoring Personnel, Appendix C - Confidential - Periodic Progress Reports, Miscellaneous Correspondence, and Variances, with attachments	TRC	

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
SR-04111B		2001	Richard S. Shepard and Roger D. Mason	CULTURAL RESOURCES RECORDS SEARCH AND FIELD SURVEY AND PALEONTOLOGIC RESOURCES LITERATURE REVIEW REPORT FOR LEVEL 3 FIBER OPTIC PROJECT: HIGHWAY 1 WORKAROUND, SANTA BARBARA COUNTY, CA	Chambers Group, Inc.	
SR-04111C		2000	Richard S. Shepard and Shannon Davis	CULTURAL RESOURCES SURVEY REPORT FOR LEVEL 3 LONG HAUL FIBER OPTIC PROJECT: WS06 CARPINTERIA WORKAROUND, FOOTHILL ROAD ALTERNATIVE, IN THE CITY OF CARPINTERIA AND ADJACENT UNINCORPORATED AREAS, SANTA BARBARA AND VENTURA COUNTIES, CA	Chambers Group, Inc.	
SR-04397		2008	Haslouer, Leeann G.	Archaeological Monitoring for the Airfield Safety Projects, Santa Barbara, California	Applied EarthWorks, Inc.	42-000052, 42-001694, 42-002579, 42-003839
SR-04407		2009	Carbone, Larry A.	An Archaeological Monitoring Program Conducted for the Goleta Sanitary District Replacement of Sewer Pipeline Force Main, City of Goleta, Santa Barbara County, CA.	Western Points Archaeology	
SR-04443		2009	Larry A. Carbone	A Phase 1 Archaeological Survey and Resource Assessment for the Goleta Sanitary District Replacement of Sewer Force Main, City of Goleta, Santa Barbara County, CA	Western Points Archaeology	
SR-04543		1996	Science Applications International Corporation	Archaeological Assessment of Unexpected Finds at CA-SBA-56 Goleta, Ca		42-000056
SR-04555		2008	Peterson, Robert and Munns, Ann	Las Vegas and San Pedro Creeks Capacity Improvement Project in Goleta, Santa Barbara County, California		42-000060, 42-001703, 42-003715
SR-04588		2010	Carbone, L.	An Archaeological Monitoring Program Conducted for the Goleta Sanitary District, Firestone Road Lift Station Sewer Line Replacement, Goleta, County of Santa Barbara, CA. Penfield & Smith Job Number 16441.04		
SR-04598		2008	Beedle, Peggy	Historical Resources Evaluation Report: Las Vegas and San Pedro Creeks Capacity Improvement Project in Goleta, Santa Barbara County, California		42-040959, 42-040960

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
SR-04630		2009	David Stone	Archaeological Survey Report: Goleta Valley Beautiful 101 Tree Planting Project, City of Goleta, California	Stone Archaeological Consulting	
SR-04638		2010	Janet Wolf	Santa Barbara County Flood Control and Water Conservation District Flood Control Maintenance Activities in the Goleta Slough, Draft Subsequent EIR SCH No. 2000031092	Padre Associates	42-000045, 42-000046
SR-04644		2011	Hannahs, Todd and Farrell, Nancy	Site History and Archaeological Assessment of CA-SBA-58 With Mitigation Strategies to Address Potential Impacts Resulting from the Construction of the Marriott Residence Inn at 6300 Hollister Avenue Goleta, California	Cultural Resources Management Services	42-000058
SR-04670		2008	Peterson Jr., Robert R. and Munns, Ann M.	Archaeological Survey Report, Las Vegas and San Pedro Creeks Capacity Improvement Project in Goleta, Santa Barbara County, California, 05-SB-101, KP 36.2-36.8/PM 22.5-22.9, EA 0G0700	Applied EarthWorks, Inc.	42-000060
SR-04696		2009	Stone, David and Victorino, Ken	Phase 2 Archaeological Investigation CA-SBA-60. Las Vegas-San Pedro Creeks Capacity Improvements Project, City of Goleta, City of Santa Barbara, Santa Barbara County, California. 05-SB-101. PM 22.5-22.9. EA 0G700	Dudek	42-000060, 42-001703
SR-04715		2011	Leftwich, Brent and Craig Woodman	Historic Property Survey Report for the Los Carneros Road Overhead Bridge Replacement Project. City of Goleta, County of Santa Barbara, California. District 5 - Santa Barbara - Highway 101 - PM 23.6 BRLS-5481 (005)	URS Corporation	42-000056
SR-04715A		2011	Craig Woodman and Brent Leftwich	Archaeological Survey Report For the Los Carneros Road Overhead Bridge Replacement Project	URS Corporation	
SR-04715B		2010	Craig Woodman	Environmentally Sensitive Area Action Plan For the Los Carneros Road Overhead Bridge Replacement Project	URS Corporation	
SR-04715C		2010		Caltrans Historic Bridge Inventory Sheet for Bridge 51C-0168	Caltrans	
SR-04715D		2011	Nancy Siepel	Finding of Effect Notification for the Los Carneros Overhead Bridge Replacement Project (OHP Report)	Environmental Planning Branch Caltrans District 5	

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
SR-04715E		2010	Brent Leftwich	Los Carneros Road Overhead Bridge Replacement Project (2010)	URS Corporation	
SR-04724		2008	Stone, David	Phase 1 Archaeological Investigation ISSB Community Center, Corner Calle Real & Los Carneros Road, Goleta, California	Dudek	
SR-04891		2008	Victorino, Ken and Stone, David	Supplemental Extended Phase 1 Archaeological Investigation, CA-SBA-58, Marriott Residence Inn, 6300 Hollister Avenue, City of Goleta, California	Dudek	42-000058
SR-04895		2010	Victorino, Ken and Stone, David	Extended Phase 1 Archaeological Investigation, CA-SBA-58, 93 South La Patera Lane, Goleta, California	Dudek	42-000058
SR-04985		2013	David Stone	Archaeological Monitoring Letter Report, Direct Relief International, 27 North La Patera Road, Goleta	Dudek	
SR-04993		2012	David Stone and Ken Victorino	Extended Phase 1 Archaeological Investigation, Proposed Sidewalk Improvement, South La Patera Lane, Goleta, California	Dudek	
SR-05025		2009	Conway, Thor	An Archaeological Surface Survey and Updated Records Search for the Goleta Slough Flood Control Dredging Project, Goleta, Santa Barbara County, California		42-000045, 42-000046, 42-001158, 42-001695
SR-05101		2013	Nicole Hernandez, Donna M. Meyer, and Various	EMW-2011-FO-02850 (13451) Santa Barbara City Fire Department (Installation of Pneumatic Diesel Exhaust Ventilation Systems in City-Owned Fire Stations)	City of Santa Barbara, FEMA	
SR-05101B		2009	Unknown	El Pueblo Viejo Design Guidelines	Historic Landmarks Commission and City Council	
SR-05101C		2013	Unknown	Historical/Archaeological Assessments of City Fire Station Nos. 2-8	Unknown	
SR-05109		2014	Stone, David and Victorino, Ken	Final Phase 3 Data Recovery Program: CA-SBA-56, Willow Springs II, Goleta	Dudek	42-000056

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
SR-05109A		2014	Bornyasz, Mitch, Harris, Susan, Skinner, Craig E., Joslin, Terry L., Rogers, Alexander K., Thatcher, Jennifer J., and Various	Appendices A-G: (A) CA-SBA-56 Phase 3 Data Recovery Program Unit Level Forms; (B) Soils Geomorphology Assessment for Archaeological Data Recovery Investigation, Willow Springs II Project, Archaeological Site CA-SBA-56 (Bornyasz 2012); (C) CA-SBA-56 Phase 3 Data Recovery Program General Catalog; (D) Flaked Stone Artifact Analysis (Harris 2013); (E) X-Ray Fluorescence Analysis and Obsidian Hydration Measurement of Artifact Obsidian from CA-SBA-56 (Skinner and Thatcher 2013); (F) CA-SBA-56 Faunal Analysis for the Willow Spring Project Archaeological Excavations (Joslin 2013); (G)Obsidian Hydration Dating (OHD) Analysis for Site CA-SBA-56 (Rogers 2013)	Various	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-42-000056	CA-SBA-000056	Other - Williams #3, Rogers #56	Site	Prehistoric	AP02; AP09; AP15; AP16	1929 (David B. Rogers); 2001 (P. Fulton)	SR-00151, SR-00246, SR-01730, SR-01746, SR-02128, SR-02131, SR-02142, SR-02249, SR-02462, SR-02969, SR-03118, SR-04111, SR-04539, SR-04543, SR-04715, SR-04874, SR-05109
P-42-000057	CA-SBA-000057	Other - Williams #2	Site	Prehistoric	AP02; AP08; AP09; AP11; AP15	1925 (David B. Rogers); 1981 (ERlandson/ Wilcoxon)	SR-00246, SR-01082, SR-01419, SR-01447, SR-02272
P-42-000058	CA-SBA-000058	Other - Williams #1	Site	Prehistoric, Historic	AP07; AP08; AP09; AP11; AP15	1925 (David B. Rogers); 1979 (Craig)	SR-00101, SR-00103, SR-00116, SR-00123, SR-00124, SR-00125, SR-00127, SR-00136, SR-00137, SR-00140, SR-00164, SR-00180, SR-00228, SR-01491, SR-01492, SR-01554, SR-01584, SR-02022, SR-02655, SR-03060, SR-04644, SR-04891, SR-04895, SR-05215
P-42-000059	CA-SBA-000059	Other - East of Williams	Site	Prehistoric	AP01	1929 (D.B. Rogers)	SR-00116, SR-00160, SR-00180, SR-00217, SR-00243, SR-00782, SR-01194, SR-01530, SR-01554, SR-01584, SR-02268, SR-02280, SR-02997, SR-04852, SR-05173

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-42-000060	CA-SBA-000060	Other - Libbey, SBMNH#115, "Gang", "Saspilil"	Site	Prehistoric, Historic	AP02; AP08; AP09; AP10; AP11; AP15; AP16	1929 (David B. Rogers); 2008 (Ken Victorino)	SL-06872, SR-00113, SR-00135, SR-00149, SR-00181, SR-00246, SR-01082, SR-01419, SR-01447, SR-01584, SR-01597, SR-01631, SR-01637, SR-01711, SR-01746, SR-01772, SR-01812, SR-02041, SR-02251, SR-02394, SR-02979, SR-03113, SR-03328, SR-03797, SR-04058, SR-04555, SR-04642, SR-04670, SR-04696, SR-04700, SR-04852, SR-04893, SR-05211, SR-05319, SR-05320, SR-05321, SR-05630, SR-05637
P-42-000062	CA-SBA-000062	Other - Larson #1	Site	Prehistoric	AP09; AP15	1929 (David B. Rogers); 1981 (Erlandson/Wilcoxon)	SR-00246, SR-01746
P-42-001574	CA-SBA-001574	Other - CR-21	Site	Prehistoric	AP02; AP15	1978 (Erlandson/ Heinzen)	SR-02661
P-42-001575	CA-SBA-001575	Other - CR-22	Site	Prehistoric	AP02; AP15	1978 (Erlandson/Heinzen)	
P-42-001576	CA-SBA-001576	Other - CR-23	Site	Prehistoric	AP02; AP15	1978 (Erlandson/ Heinzen)	
P-42-001577	CA-SBA-001577		Site	Prehistoric	AP02; AP15	1978 (Erlandson/ Heinzen)	
P-42-001703	CA-SBA-001703		Site	Prehistoric	AP15	1981 (Erlandson/ Wilcoxon); 2008 (Ken Victorino, DUDEK); 2015 (Allika Ruby, Far Western Anthropological Research Group)	SR-00158, SR-00239, SR-01082, SR-01419, SR-01620, SR-02041, SR-03092, SR-03249, SR-04555, SR-04696, SR-04700, SR-05132, SR-05371, SR-05405

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-42-002391	CA-SBA-002391	Agency Nbr - GS-1	Site	Prehistoric	AP02; AP16	1990 (Wells and Huber, Cultural Resource Management Services, 1727 State St., #26, Santa Barbara CA 93101)	SR-01584, SR-04852
P-42-003742	CA-SBA-003742H	Resource Name - Santa Barbara Airport T Hangar Site 1	Site	Historic	AH04; AH11	2004 (Joyce L. Gerber, Applied Earthworks)	SR-03215, SR-04133, SR-04852
P-42-003817	CA-SBA-003817H	Resource Name - Firestone Ditch	Structure	Historic	AH06	2003 (B. Bass, R. Farmer, URS Corporation)	
P-42-003822	CA-SBA-003822	Resource Name - FD-2	Other	Prehistoric	AP02; AP15	2003 (B. Bass, R. Farmer, URS Corporation)	
P-42-003944	CA-SBA-003944/H	Other - SBA-60 Redeposit at Waterscreening Area	Other	Prehistoric, Historic	AH16	2005 (Ann Munns, Applied EarthWorks, Inc.)	SR-04642
P-42-040960		Resource Name - Southern Pacific Railroad Bridge over San Pedro Creek-MR # 1	Structure	Historic	HP19	2007 (P. Beedle, Applied EarthWorks, Inc.)	SR-04598
P-42-041026		Other - Building No. 267; Other - Squadron Maintenance Hangar; Other - Santa Barbara Aviation; Other - hangar #3	Building	Historic	HP34	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041027		Other - Building No. 268; Other - Storehouse Building	Building	Historic	HP39	1994 (Mitch Stone and Judtih Triem, San Buenaventura Research Associates)	SR-05454
P-42-041028		Other - Building No. 309; Other - Hangar No. 2; Other - Squadron Maintenance Hangar	Building	Historic	HP04	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041031		Other - Building No. 305; Other - Squadron Headquarters; Other - Dynasen Inc	Building	Historic	HP39	1994 (Mitch Stone and Judith Triem, San Buenaventura Reseach Associates)	SR-05454
P-42-041034		Other - building no. 314; Other - Storehouse building; Other - Atlas Fence Co.	Building	Historic	HP39	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041035		Other - Building No. 315; Other - Storehouse building	Building	Historic	HP39	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041036		Other - Building No. 114; Other - Supply Officer and Accounts Building	Building	Historic	HP39	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-42-041037		Other - Building No. 115; Other - Aircraft Maintenance #2	Building	Historic	HP39	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041038		Other - Building No. 116; Other - Aircraft Maintenance Bldg #1; Other - Arrow Camper Shells	Building	Historic	HP39	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Assoc)	SR-05454
P-42-041039		Other - Building No. 117; Other - Post Office; Other - Business Aircraft Sales Corp	Building	Historic	HP39	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041040		Other - Building No. 118; Other - Firehouse #2; Other - County Fire Station No. 12	Building	Historic	HP09	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041045		Other - Building No. 210; Other - hangar	Building	Historic	HP04	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041046		Other - Builiding No. 211; Other - Goleta Auto Body	Building	Historic	HP39	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041047		Other - Building No. 212; Other - Cinema Twin Theater	Building	Historic	HP10	1994 (Mitch Stone and Judtih Triem, San Buenaventura Research Associates)	SR-05454
P-42-041048		Other - Building No. 223; Other - Storehouse Building; Other - Curt's Cabinets; Other - Anacapa Glass	Building	Historic	HP06	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041049		Other - Building No. 224; Other - Storehouse building; Other - Goleta Environmental Council	Building	Historic	HP06	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041050		Other - Building No. 225; Other - Storehouse Building; Other - Dave's Carpets	Building	Historic	HP06	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041051		Other - Building No. 226; Other - Storehouse building	Building	Historic	HP06	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-42-041052		Other - Building No. 2; Other - Storehouse Builiding; Other - Aqua Flow Supply; Other - Kinko's	Building	Historic	HP06	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041053		Other - Building No. 239; Other - Parachute Building	Building	Historic	HP34	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041054		Other - Building No. 240; Other - Aircraft Accessory Maintenance Building	Building	Historic	HP06	1994 (Mitch Stone and Judith Treim, San Buenaventura Research Associates)	SR-05454
P-42-041055		Other - Building No. 241; Other - Dope and Spray Building	Building	Historic	HP39	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041056		Other - Building No. 242; Other - Standby Power Unit	Building	Historic	HP39	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041058		Other - Building No. 246; Other - Propellar Shop	Building	Historic	HP39	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041059		Other - Building No. 247; Other - A & R Maintenance Hangar; Other - Art from Scrap; Other - United Van Lines	Building	Historic	HP39	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041060		Other - Building No. 251; Other - Storehouse building	Building	Historic	HP39	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041061		Other - Building No. 255/256; Other - Administration/Telephone Building	Building	Historic	HP39	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041062		Other - Building No. 257; Other - Storehouse Building,; Other - T-hangers	Building	Historic	HP39	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041063		Other - Building No. 258; Other - Squadron Headquarter; Other - Chapman Photo	Building	Historic	HP06	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041064		Other - Building No. 259; Other - Sewer Lift Station	Building	Historic	HP39	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-42-041066		Other - Building No. 269; Other - T-hangars	Building	Historic	HP04	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041068		Other - Building No. 271; Other - hangar	Building	Historic	HP04	1994 (Mitch Stone and Judith Triem)	SR-05454
P-42-041069		Other - Building No. 274, 284, 285; Other - Santa Barbara Aviation	Building	Historic	HP04	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041070		Other - Building No. 276; Other - hangar	Building	Historic	HP04	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041071		Other - Building No. 283; Other - T-hangars	Building	Historic	HP04	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041072		Other - Building No. 301; Other - Guard House	Building	Historic	HP39	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041073		Other - Builiding No. 302; Other - Storehouse Building	Building	Historic	HP06	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041074		Other - Building No. 303; Other - Storehouse Building	Building	Historic	HP06	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041075		Other - building No. 304; Other - squadron headquarters	Building	Historic	HP39	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041076		Other - Building No. 306; Other - Public Works Shops	Building	Historic	HP06	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041077		Other - Building No. 307; Other - hangar	Building	Historic	HP04	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041078		Other - Building No. 311; Other - Servicemaster	Building	Historic	HP39	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041079		Other - Building NO. 312; Other - Operations building; Other - FAA Flight Service	Building	Historic	HP39	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-42-041083		Other - Building No. 333; Other - Synthetic Training Building	Building	Historic	HP06	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041084		Other - Building No. 344; Other - Ordinance and Torpedo Building; Other - Mari-Pro	Building	Historic	HP06	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041086		Other - Building No. 347; Other - Airport Maintenance yard	Building	Historic	HP04	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041088		Other - Building No. 351; Other - Acorn Landscaping	Building	Historic	HP39	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041089		Other - Building No. 352	Building	Historic	HP39	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041091		Other - Building No. 364; Other - AGRX	Building	Historic	HP06	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041092		Other - Building No. 367; Other - Control Tower	Building	Historic	HP39	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454
P-42-041094		Other - Southern California Edison	Building	Historic	HP08	1994 (Mitch Stone and Judith Triem, San Buenaventura Research Associates)	SR-05454

Appendix B

Native American Outreach

Sacred Lands File & Native American Contacts List Request

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd, Suite 100
Sacramento, CA 95814
(916) 373-3710
(916) 373-5471 – Fax
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: Goleta Train Depot Project

County: Santa Barbara

USGS Quadrangle Name: *Goleta*

Township: 04 North Range: 28 West Section(s): 7 and 8

Company/Firm/Agency: Rincon Consultants, Inc.

Contact Person: Mary Pfeiffer

Street Address: 180 N. Ashwood Avenue

City: Ventura Zip: 93003

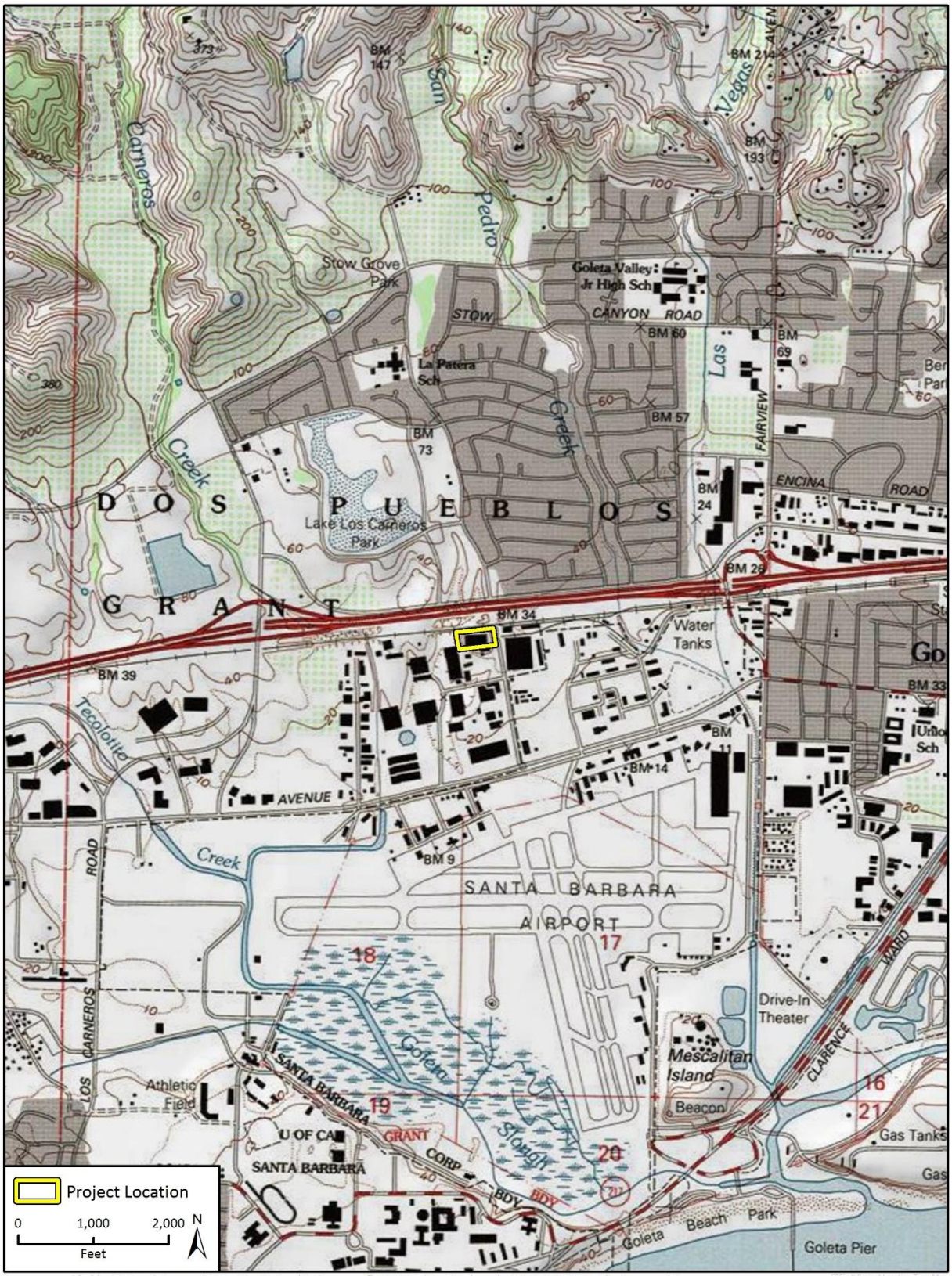
Phone: (805) 644-4455 ext. 2052

Email: mpfeiffer@rinconconsultants.com

Project Description: The project site is approximately 2.5-acres located at 27 South La Patera Lane. The project site is currently developed with an industrial structure and associated parking. The project would develop a new train depot on the City-owned property adjacent to the existing Goleta Train Depot, which would connect to the existing platform. Based on Amtrak's ridership projections, the proposed Depot would be categorized as a Caretaker station which would require a platform, platform canopy, station building, pick-up/drop-off lanes, signage, lighting, and various other amenities consistent with the Amtrak Station Program and Planning Guidelines.

The Depot building would be an 8,000 square foot structure which would include a lobby, waiting area, community meeting room, restroom facilities with shower and changing areas, and a café.

**NOTE: A sacred lands file request has already been submitted with an AB 52 consultation list request. For this request can you please provide a contact list only.



Imagery provided by National Geographic Society, Esri and its licensors © 2019. Goleta Quadrangle. T04N R28W S07. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

Rincon Consultants, Inc.

209 East Victoria Street
Santa Barbara, California 93101

805 319 4092 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 19, 2019

Gino Altamirano, Chairperson
Coastal Band of the Chumash Nation
P. O. Box 4464
Santa Barbara, CA, 93140
cbcn.consultation@gmail.com

RE: Cultural Resources Study for the Goleta Train Depot Project, City of Goleta, Santa Barbara County, California

Dear Chairperson Altamirano:

Rincon Consultants, Inc. (Rincon) was retained by the City of Goleta to prepare a Cultural Resources Phase I Report for the Goleta Train Depot Project located in the City of Goleta, Santa Barbara County, California. This project is subject to the California Environmental Quality Act (CEQA). The City of Goleta is the lead agency under CEQA. The project would develop a new train depot on the City-owned property adjacent to the existing Goleta Train Depot, which would connect to the existing platform. The proposed Depot would be categorized as a Caretaker station which would require a platform, platform canopy, station building, pick-up/drop-off lanes, signage, lighting, and various other amenities consistent with the *Amtrak Station Program and Planning Guidelines*. The Depot building would be an 8,000 square foot structure which would include a lobby, waiting area, community meeting room, restroom facilities with shower and changing areas, and a café. This letter does not constitute notification under Assembly Bill 52 of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

As part of the process of identifying cultural resources for this project, Rincon has contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American tribal organizations and individuals who may have knowledge of sensitive cultural resources in or near the project site. Rincon received a response from the NAHC on December 17, 2019, which stated the SLF search had been completed with "positive" results. The NAHC suggested we contact you to discuss this project further.

If you have knowledge of cultural resources that may exist within or near the project site, please do not hesitate to contact me at mpfeiffer@rinconconsultants.com, or by telephone at (805) 644-4455 ext. 2052. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

Mary Pfeiffer
Associate Archaeologist

Enclosure: Project Location Map

Rincon Consultants, Inc.

209 East Victoria Street
Santa Barbara, California 93101

805 319 4092 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 19, 2019

Eleanor Arrellanes
Barbareno/ Ventureno Band of Mission Indians
P. O. Box 5687
Ventura, CA, 93005
Phone: (805) 701-3246

RE: Cultural Resources Study for the Goleta Train Depot Project, City of Goleta, Santa Barbara County, California

Dear Ms. Arrellanes:

Rincon Consultants, Inc. (Rincon) was retained by the City of Goleta to prepare a Cultural Resources Phase I Report for the Goleta Train Depot Project located in the City of Goleta, Santa Barbara County, California. This project is subject to the California Environmental Quality Act (CEQA). The City of Goleta is the lead agency under CEQA. The project would develop a new train depot on the City-owned property adjacent to the existing Goleta Train Depot, which would connect to the existing platform. The proposed Depot would be categorized as a Caretaker station which would require a platform, platform canopy, station building, pick-up/drop-off lanes, signage, lighting, and various other amenities consistent with the *Amtrak Station Program and Planning Guidelines*. The Depot building would be an 8,000 square foot structure which would include a lobby, waiting area, community meeting room, restroom facilities with shower and changing areas, and a café. This letter does not constitute notification under Assembly Bill 52 of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

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Sincerely,
Rincon Consultants, Inc.

Mary Pfeiffer
Associate Archaeologist

Enclosure: Project Location Map

Rincon Consultants, Inc.

209 East Victoria Street
Santa Barbara, California 93101

805 319 4092 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 19, 2019

Raudel Banuelos
Barbareno/ Ventureno Band of Mission Indians
331 Mira Flores
Camarillo, CA, 93012
Phone: (805) 427 - 0015

RE: Cultural Resources Study for the Goleta Train Depot Project, City of Goleta, Santa Barbara County, California

Dear Mr. Banuelos:

Rincon Consultants, Inc. (Rincon) was retained by the City of Goleta to prepare a Cultural Resources Phase I Report for the Goleta Train Depot Project located in the City of Goleta, Santa Barbara County, California. This project is subject to the California Environmental Quality Act (CEQA). The City of Goleta is the lead agency under CEQA. The project would develop a new train depot on the City-owned property adjacent to the existing Goleta Train Depot, which would connect to the existing platform. The proposed Depot would be categorized as a Caretaker station which would require a platform, platform canopy, station building, pick-up/drop-off lanes, signage, lighting, and various other amenities consistent with the *Amtrak Station Program and Planning Guidelines*. The Depot building would be an 8,000 square foot structure which would include a lobby, waiting area, community meeting room, restroom facilities with shower and changing areas, and a café. This letter does not constitute notification under Assembly Bill 52 of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

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Sincerely,
Rincon Consultants, Inc.

Mary Pfeiffer
Associate Archaeologist

Enclosure: Project Location Map

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209 East Victoria Street
Santa Barbara, California 93101

805 319 4092 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 19, 2019

Fred Collins, Spokesperson
Northern Chumash Tribal Council
P.O. Box 6533
Los Osos, CA, 93412
Phone: (805) 801 - 0347
fcollins@northernchumash.org

RE: Cultural Resources Study for the Goleta Train Depot Project, City of Goleta, Santa Barbara County, California

Dear Spokesperson Collins:

Rincon Consultants, Inc. (Rincon) was retained by the City of Goleta to prepare a Cultural Resources Phase I Report for the Goleta Train Depot Project located in the City of Goleta, Santa Barbara County, California. This project is subject to the California Environmental Quality Act (CEQA). The City of Goleta is the lead agency under CEQA. The project would develop a new train depot on the City-owned property adjacent to the existing Goleta Train Depot, which would connect to the existing platform. The proposed Depot would be categorized as a Caretaker station which would require a platform, platform canopy, station building, pick-up/drop-off lanes, signage, lighting, and various other amenities consistent with the *Amtrak Station Program and Planning Guidelines*. The Depot building would be an 8,000 square foot structure which would include a lobby, waiting area, community meeting room, restroom facilities with shower and changing areas, and a café. This letter does not constitute notification under Assembly Bill 52 of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

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Sincerely,
Rincon Consultants, Inc.

Mary Pfeiffer
Associate Archaeologist

Enclosure: Project Location Map

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209 East Victoria Street
Santa Barbara, California 93101

805 319 4092 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 19, 2019

Kenneth Kahn, Chairperson
Santa Ynez Band of Chumash Indians
P.O. Box 517
Santa Ynez, CA, 93460
Phone: (805) 688 - 7997
Fax: (805) 686-9578
kkahn@santaynezchumash.org

RE: Cultural Resources Study for the Goleta Train Depot Project, City of Goleta, Santa Barbara County, California

Dear Chairperson Kahn:

Rincon Consultants, Inc. (Rincon) was retained by the City of Goleta to prepare a Cultural Resources Phase I Report for the Goleta Train Depot Project located in the City of Goleta, Santa Barbara County, California. This project is subject to the California Environmental Quality Act (CEQA). The City of Goleta is the lead agency under CEQA. The project would develop a new train depot on the City-owned property adjacent to the existing Goleta Train Depot, which would connect to the existing platform. The proposed Depot would be categorized as a Caretaker station which would require a platform, platform canopy, station building, pick-up/drop-off lanes, signage, lighting, and various other amenities consistent with the *Amtrak Station Program and Planning Guidelines*. The Depot building would be an 8,000 square foot structure which would include a lobby, waiting area, community meeting room, restroom facilities with shower and changing areas, and a café. This letter does not constitute notification under Assembly Bill 52 of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

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Sincerely,
Rincon Consultants, Inc.



Mary Pfeiffer

Rincon Consultants, Inc.
209 East Victoria Street
Santa Barbara, California 93101

805 319 4092 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

Associate Archaeologist

Enclosure: Project Location Map

Rincon Consultants, Inc.
209 East Victoria Street
Santa Barbara, California 93101

805 319 4092 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 19, 2019

Julio Quair, Chairperson
Chumash Council of Bakersfield
729 Texas Street
Bakersfield, CA, 93307
Phone: (661) 322 - 0121
chumashtribe@sbcglobal.net

RE: Cultural Resources Study for the Goleta Train Depot Project, City of Goleta, Santa Barbara County, California

Dear Chairperson Quair:

Rincon Consultants, Inc. (Rincon) was retained by the City of Goleta to prepare a Cultural Resources Phase I Report for the Goleta Train Depot Project located in the City of Goleta, Santa Barbara County, California. This project is subject to the California Environmental Quality Act (CEQA). The City of Goleta is the lead agency under CEQA. The project would develop a new train depot on the City-owned property adjacent to the existing Goleta Train Depot, which would connect to the existing platform. The proposed Depot would be categorized as a Caretaker station which would require a platform, platform canopy, station building, pick-up/drop-off lanes, signage, lighting, and various other amenities consistent with the *Amtrak Station Program and Planning Guidelines*. The Depot building would be an 8,000 square foot structure which would include a lobby, waiting area, community meeting room, restroom facilities with shower and changing areas, and a café. This letter does not constitute notification under Assembly Bill 52 of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

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Sincerely,
Rincon Consultants, Inc.

Mary Pfeiffer
Associate Archaeologist

Enclosure: Project Location Map

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209 East Victoria Street
Santa Barbara, California 93101

805 319 4092 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 19, 2019

Mona Tucker, Chairperson
Yak tityu tityu yak tilhini – Northern Chumash Tribe
660 Camino Del Rey
Arroyo Grande, CA, 93420
Phone: (805) 748-2121
olivas.mona@gmail.com

RE: Cultural Resources Study for the Goleta Train Depot Project, City of Goleta, Santa Barbara County, California

Dear Chairperson Tucker:

Rincon Consultants, Inc. (Rincon) was retained by the City of Goleta to prepare a Cultural Resources Phase I Report for the Goleta Train Depot Project located in the City of Goleta, Santa Barbara County, California. This project is subject to the California Environmental Quality Act (CEQA). The City of Goleta is the lead agency under CEQA. The project would develop a new train depot on the City-owned property adjacent to the existing Goleta Train Depot, which would connect to the existing platform. The proposed Depot would be categorized as a Caretaker station which would require a platform, platform canopy, station building, pick-up/drop-off lanes, signage, lighting, and various other amenities consistent with the *Amtrak Station Program and Planning Guidelines*. The Depot building would be an 8,000 square foot structure which would include a lobby, waiting area, community meeting room, restroom facilities with shower and changing areas, and a café. This letter does not constitute notification under Assembly Bill 52 of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

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Sincerely,
Rincon Consultants, Inc.

Mary Pfeiffer
Associate Archaeologist

Enclosure: Project Location Map

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Santa Barbara, California 93101

805 319 4092 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 19, 2019

Patrick Tumamait
Barbareno/ Ventureno Band of Mission Indians
992 El Camino Corto
Ojai, CA, 93023
Phone: (805) 216-1253

RE: Cultural Resources Study for the Goleta Train Depot Project, City of Goleta, Santa Barbara County, California

Dear Mr. Tumamait:

Rincon Consultants, Inc. (Rincon) was retained by the City of Goleta to prepare a Cultural Resources Phase I Report for the Goleta Train Depot Project located in the City of Goleta, Santa Barbara County, California. This project is subject to the California Environmental Quality Act (CEQA). The City of Goleta is the lead agency under CEQA. The project would develop a new train depot on the City-owned property adjacent to the existing Goleta Train Depot, which would connect to the existing platform. The proposed Depot would be categorized as a Caretaker station which would require a platform, platform canopy, station building, pick-up/drop-off lanes, signage, lighting, and various other amenities consistent with the *Amtrak Station Program and Planning Guidelines*. The Depot building would be an 8,000 square foot structure which would include a lobby, waiting area, community meeting room, restroom facilities with shower and changing areas, and a café. This letter does not constitute notification under Assembly Bill 52 of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

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Sincerely,
Rincon Consultants, Inc.

Mary Pfeiffer
Associate Archaeologist

Enclosure: Project Location Map

Rincon Consultants, Inc.
209 East Victoria Street
Santa Barbara, California 93101

805 319 4092 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 19, 2019

Julie Tumamait-Stenslie, Chairperson
Barbareno/Ventureno Band of Mission Indians
365 North Poli Avenue
Ojai, CA, 93023
Phone: (805) 646 - 6214
jtumamait@hotmail.com

RE: Cultural Resources Study for the Goleta Train Depot Project, City of Goleta, Santa Barbara County, California

Dear Chairperson Tumamait-Stenslie:

Rincon Consultants, Inc. (Rincon) was retained by the City of Goleta to prepare a Cultural Resources Phase I Report for the Goleta Train Depot Project located in the City of Goleta, Santa Barbara County, California. This project is subject to the California Environmental Quality Act (CEQA). The City of Goleta is the lead agency under CEQA. The project would develop a new train depot on the City-owned property adjacent to the existing Goleta Train Depot, which would connect to the existing platform. The proposed Depot would be categorized as a Caretaker station which would require a platform, platform canopy, station building, pick-up/drop-off lanes, signage, lighting, and various other amenities consistent with the *Amtrak Station Program and Planning Guidelines*. The Depot building would be an 8,000 square foot structure which would include a lobby, waiting area, community meeting room, restroom facilities with shower and changing areas, and a café. This letter does not constitute notification under Assembly Bill 52 of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

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Sincerely,
Rincon Consultants, Inc.

Mary Pfeiffer
Associate Archaeologist

Enclosure: Project Location Map

Rincon Consultants, Inc.
209 East Victoria Street
Santa Barbara, California 93101

805 319 4092 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 19, 2019

Mark Vigil, Chief
San Luis Obispo County Chumash Council
1030 Ritchie Road
Grover Beach, CA, 93433
Phone: (805) 481-2461
Fax: (805) 474-4729

RE: Cultural Resources Study for the Goleta Train Depot Project, City of Goleta, Santa Barbara County, California

Dear Chief Vigil:

Rincon Consultants, Inc. (Rincon) was retained by the City of Goleta to prepare a Cultural Resources Phase I Report for the Goleta Train Depot Project located in the City of Goleta, Santa Barbara County, California. This project is subject to the California Environmental Quality Act (CEQA). The City of Goleta is the lead agency under CEQA. The project would develop a new train depot on the City-owned property adjacent to the existing Goleta Train Depot, which would connect to the existing platform. The proposed Depot would be categorized as a Caretaker station which would require a platform, platform canopy, station building, pick-up/drop-off lanes, signage, lighting, and various other amenities consistent with the *Amtrak Station Program and Planning Guidelines*. The Depot building would be an 8,000 square foot structure which would include a lobby, waiting area, community meeting room, restroom facilities with shower and changing areas, and a café. This letter does not constitute notification under Assembly Bill 52 of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

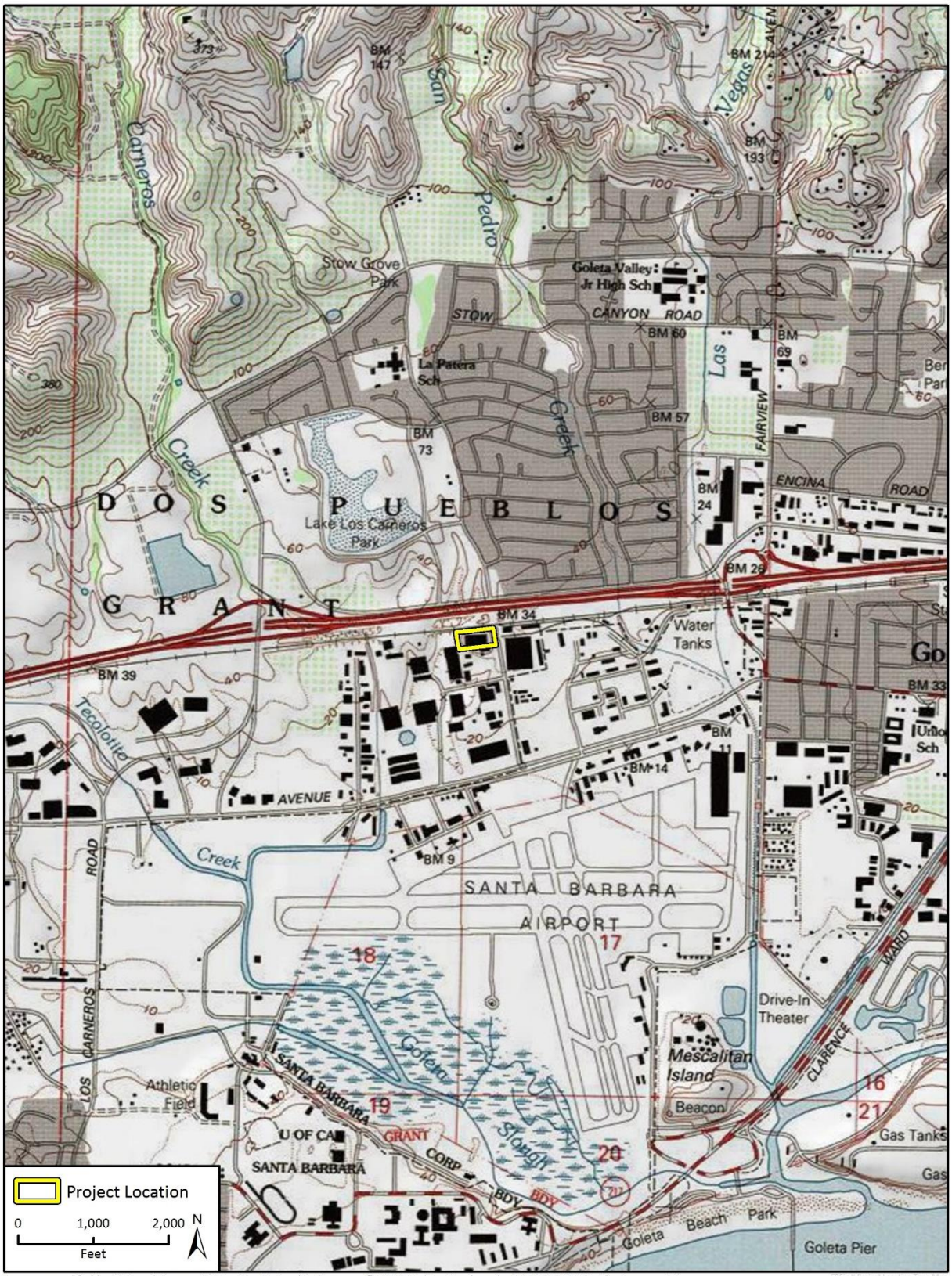
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Sincerely,
Rincon Consultants, Inc.

Mary Pfeiffer
Associate Archaeologist

Enclosure: Project Location Map



Imagery provided by National Geographic Society, Esri and its licensors © 2019. Goleta Quadrangle. T04N R28W S07. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

Appendix C

DPR 523 Series Forms

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 6Z

Other Listings
Review Code | Reviewer | Date

 ***Resource Name or #:** 27 South La Patera Lane

P1. Other Identifier:

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County:** Santa Barbara

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** Goleta **Date:** 1995 (2000 ed.) **T** 4N;**R** 28W; **¼ of ¼ of Sec** ; S.B. **B.M.**

c. Address: 27 South La Patera Lane City: Goleta Zip: 93117

d. UTM: Zone: ; mE/mN (G.P.S.)

e. Other Locational Data: APN 073-050-033 Elevation:

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The 2.48-acre property contains an approximately 36,000 square foot warehouse on the northern half of the parcel. Resting on a concrete foundation, the building has a rectangular footprint and a low-pitched gable roof clad with metal panels. The building appears to be steel-framed and is sheathed with vertical standing seam metal panels which are regularly spaced in an alternating tan and brown pattern around the building. Facing La Patera Lane, the east elevation features a concrete loading dock with concrete steps at one end and metal pole railings at top. The loading dock leads to five large metal roll-up doors and a single entry door which appears to be metal with a single glass pane. A flat metal roof projects from the wall plane to shelter the aforementioned doors. At the southeast corner of the building another flat roof projects from the wall plane and rounds the corner, sheltering windows and the primary entrance to the building. Slightly recessed, the entrance consists of a single aluminum and glass commercial door with a transom and sidelight.

Fenestration on the east and south elevations includes non-original vinyl-sash fixed and sliding windows. Additional secondary entries are located on the south elevation. One of the entries is recessed and contains a metal door with glazing. Further to the west is another entry consisting of a concrete wheelchair-accessible ramp with a metal pole railing, and an aluminum and glass commercial entry door which is sheltered by a small flat roof with pole supports. Two areas of chain link fencing with screening material conceal mechanical equipment against the south elevation. The north elevation facing the railroad does not contain any windows but displays several metal roll-up doors. See continuation sheet, page 4.

***P3b. Resource Attributes:** HP8. Industrial building

***P4. Resources Present:** ☒Building ☐Structure ☐Object ☐Site ☐District ☐Element of District ☐Other (Isolates, etc.)



P5b. Description of Photo: North and east elevations, view southwest

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1967 (City of Goleta building permits)

***P7. Owner and Address:**
City of Goleta

***P8. Recorded by:**
Susan Zamudio-Gurrola
Rincon Consultants, Inc.
180 N. Ashwood Ave
Ventura, CA 93003

***P9. Date Recorded:** 12/19/2019

***P10. Survey Type:** Intensive

***P11. Report Citation:**
Pfeiffer, M., S. Zamudio-Gurrola, H. Haas, C. Duran and S. Carmack. 2019. *Goleta Train Depot Project: Cultural Resources Assessment Report*. Rincon Consultants, Inc., Project No. 19-07186.

***Attachments:** ☐NONE ☒Location Map ☐Sketch Map ☒Continuation Sheet ☒Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

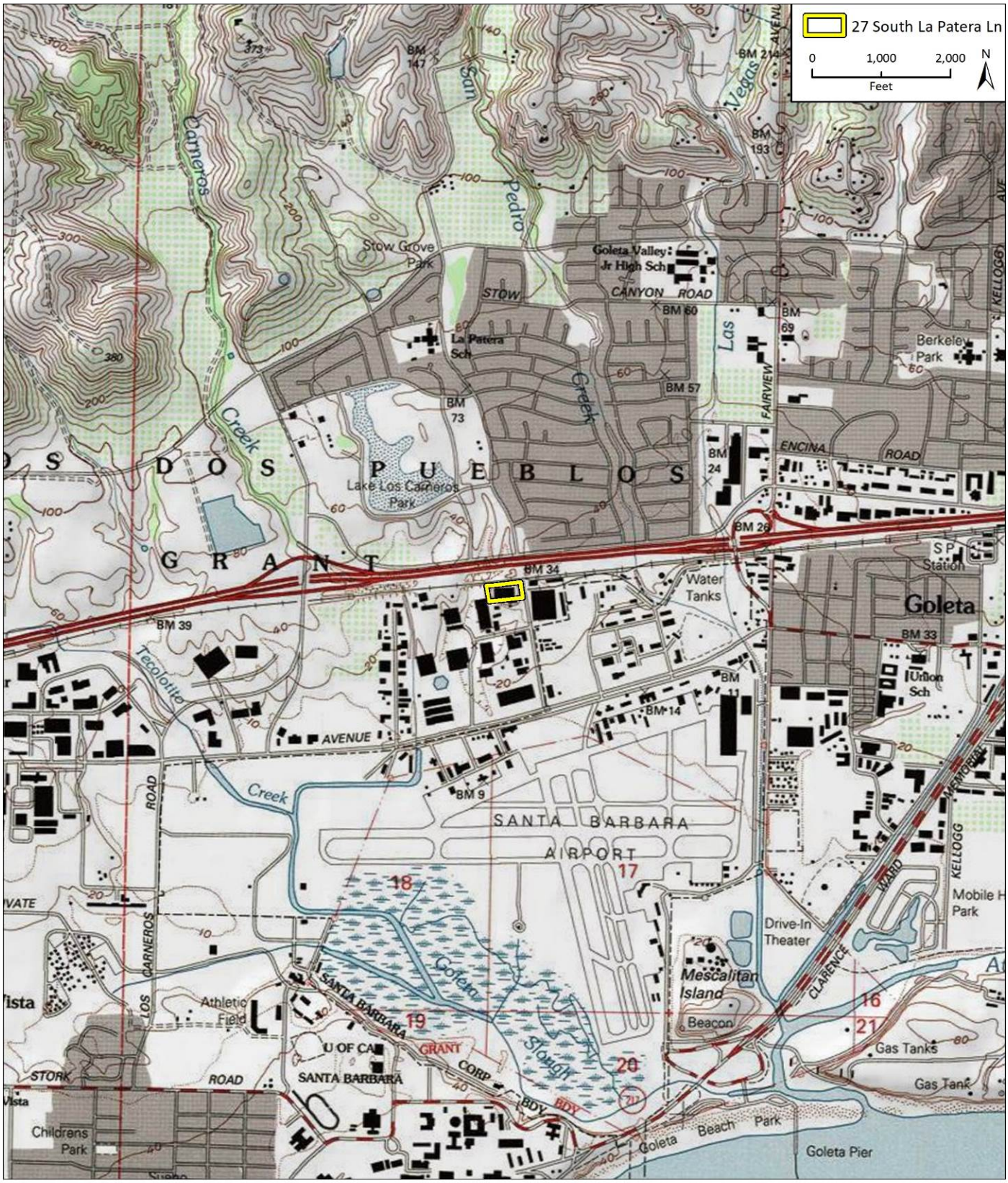
Primary #
HRI#
Trinomial

***Resource Name or #:** 27 South La Patera Lane

***Map Name:** USGS *Goleta* Quadrangle

***Scale:** 1:24,000

***Date of Map:** 1995 (2000 edition)



***Required information**

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code** 6Z

***Resource Name or #** (Assigned by recorder) 27 South La Patera Lane

B1. Historic Name: Sears Roebuck & Co. warehouse and service department
B2. Common Name:
B3. Original Use: warehouse
B4. Present Use: vacant

***B5. Architectural Style:** Utilitarian standing-seam metal warehouse

***B6. Construction History:** (Construction date, alterations, and date of alterations)
Constructed between 1966-1967. Area across the width of the western/rear elevation enclosed in 1997. Windows replaced with vinyl-sash at unknown time.

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** **Original Location:**

***B8. Related Features:**

B9a. Architect: None
b. Builder: Unknown

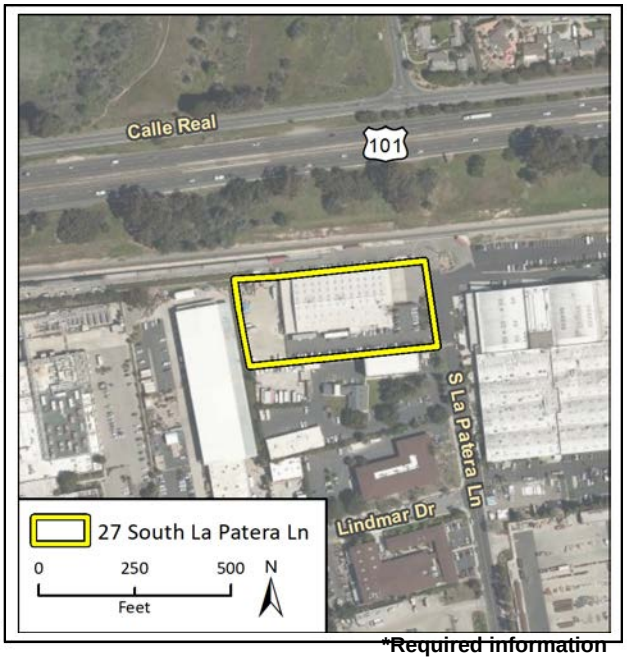
***B10. Significance: Theme:** **Area:**
Period of Significance: **Property Type:** **Applicable Criteria:**

The warehouse building at 27 South La Patera Lane was developed in 1966 by Sears, Roebuck and Company's Pacific Coast Construction and Store Planning Department. Construction was completed in 1967, and the Sears Roebuck retail store opened in Santa Barbara at 3845 State Street the same year (Hayden 2019). The warehouse housed the store's service department; it appears prior to the warehouse being completed, the service department was located at 16 Helena Avenue in Santa Barbara (R.L. Polk 1967 and 1968).

As originally designed, the warehouse appeared much like it does today with the exception of a concrete pad and ramp spanning across the width of the building at its western end. This area was later enclosed. Letters reading "Sears Service Center" were mounted on the flat roof sheltering the primary entry. A spur track passed alongside the building's north elevation, and the Southern Pacific Railroad main line was located slightly to the north. Sears Roebuck's plans also specified landscaping for areas along the eastern edge of the property; plans called for planting of juniper pfitzeriana blue, canary island pine, bronze leaf flax, prostrate juniper, and juniperus tamariscifolia (County of Santa Barbara, various).

By 1982 Sears leased a portion of the property to a company called Russell Transportation who used it for the storage and service of buses. County records show the following year the company Raytheon was occupying the property. Although a data gap exists due to unavailable city directories, Raytheon is known to have operated the property as a warehouse between at least 1983 and 1985. Raytheon also had offices on the adjacent property at 33 South La Patera Lane (R.L. Polk & Co. 1983 and 1984-1985).

Raytheon was established in in Cambridge, Massachusetts in 1922, originally called the American Appliance Company. One of the company's early innovations was the S gas rectifier tube which allowed the home radio to become an affordable, must-have household appliance. The company's technology and equipment contributed to the World War II effort, and afterwards the company began offering civilian products, the most famous being the microwave. Today Raytheon is one of the world's leading firms in technology for aerospace, defense and civil government markets (Raytheon 2019). See continuation sheet, p. 4.



B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:** See continuation sheet, p. 5.

B13. Remarks:

***B14. Evaluator:** Susan Zamudio-Gurrola

***Date of Evaluation:** December 20, 2019

(This space reserved for official comments.)

***Recorded by:** Susan Zamudio-Gurrola ***Date:** 12/19/2019 ☒Continuation ☐ Update

P3a. Description, continued….
An addition/enclosure across the rear of the building is also sheathed with standing seam metal panels and topped with a shed roof that is lower than the main building. A concrete ramp with metal pole railings leads to a recessed opening at the northwest corner of the building. No windows were observed on the west elevation, only two roll-up metal doors and mechanical equipment mounted on the wall surface. Chain-link fencing with screening material encloses equipment near the building's southwest corner.

Access to the loading dock on the east end of the building and to the paved storage yard at the rear of the building is limited by fencing. Landscaped areas are located at the east edge and northeast corner of the parcel, and include a variety of ornamental grasses and small trees, shrubs, succulents, and low ground cover. A narrow strip of soil lines the northern edge of the building and is covered with a crawling vine plant that comes down from the chain link fence enclosing the front loading dock. Parking stalls located north of the building appear to be part of the railroad right-of-way and outside of the property's parcel boundary.

B10. Significance, continued…
In 1956 Raytheon established an Electromagnetic Systems Division in Goleta, developing facilities near Hollister Avenue and Coromar Drive (Raytheon 2019; Historic Resources Group 2017; Goleta Valley Chamber of Commerce 1971). By 1970 Raytheon, Delco and Santa Barbara Research Center had the three largest payrolls (in dollar terms) in Santa Barbara County (Graham 2008). Over the decades Raytheon has occupied various buildings in Goleta for different uses, including at 75 Coromar Drive, 6380 Hollister Avenue, 27 and 33 La Patera Lane, and 1 South Los Carneros (Historic Resources Group 2018; Goleta Valley Chamber of Commerce 1971; R.L. Polk & Co. 1983; Hoagland 2014).

By 1994 Direct Relief International, a non-profit organization that provides relief assistance throughout the world, had moved onto the subject property. Direct Relief completed various improvements including the enclosure of the area across the rear (west) elevation in 1997. The building interior has undergone alterations over the years to accommodate its different occupants, including the creation of restrooms, office and storage spaces, and stairs (County of Santa Barbara, various). Windows were replaced at an unknown date with vinyl sash. The spur track running north of the building is believed to have been removed between 1972 and 1980 (UCSB Map & Imagery Lab 1972 and 1980). Direct Relief vacated the property in 2018 and developed a new facility at a nearby location (Cooper 2017). The City of Goleta now owns the subject property (Holland 2018).

Evaluation:
The property at 27 South La Patera Lane is recommended ineligible for listing in the NRHP and CRHR. The property was developed in 1967 by Sears Roebuck and Company with a metal warehouse that was secondary to their retail store and housed their service department. The warehouse was one of many buildings developed by Sears Roebuck as part of their extensive system of stores and facilities. Over the decades, the property has continued to be used primarily as a storage warehouse and storage yard. Although it was occupied briefly by Raytheon, a company known for its work in technology and aerospace, the property was not Raytheon's first or primary facility, and Raytheon has occupied various properties in the Goleta area over the years. The property did not play a significant role in the development of the city, state or nation, and archival research did not demonstrate the subject property possesses any associations with significant events. Thus, it is recommended ineligible under Criteria A/1. In addition, archival research did not demonstrate the property possesses any associations with significant persons in our past. Therefore, it is recommended ineligible under Criteria B/2. The metal warehouse is a utilitarian and ubiquitous type of building that does not embody the distinctive characteristics of a type, period or method of construction, nor does it represent the work of a master or possess high artistic values. It does not represent a significant and distinguishable entity whose components lack individual distinction. As a result, the property is recommended ineligible under Criteria C/3. A review of available evidence and records search results did not indicate the property has the potential to be eligible under Criteria D/4 for its potential to yield information important to our understanding of human history or prehistory. Lastly, the property does not appear to be a contributor to a larger NRHP or CRHR-eligible historic district.

The property at 27 South La Patera Lane is recommended ineligible for designation as a City of Goleta locally significant historic resource as it does not meet any of the necessary criteria. The property does meet City of Goleta criteria a, b, c, d or g for the same reasons described above under NRHP/CRHR criteria A/1, B/2, and C/3. The property is not part of a geographically definable area possessing a concentration of historic, prehistoric, or scenic properties that are unified aesthetically (Criteria e). Its location does not have unique physical characteristics or landscaping; nor can it be considered a view or vista representing an established visual feature of a neighborhood or community (Criteria f). The property does not meet Criteria h. Originally developed in 1967 by Sears Roebuck and Company as a service facility secondary to their main retail store in Santa Barbara, the property continued to be used primarily as a warehouse and storage yard over the subsequent decades. Geographically, it was developed in an area supporting a wide mix of uses, and the property does not reflect a significant geographical pattern associated with a particular era of settlement and growth. The property does not meet Criteria i as it is not one of a few remaining examples possessing distinguishing characteristics of an architectural, landscape architectural, or historical type. Lastly, the property does not meet Criteria j as it is primarily paved with small landscaped areas featuring common plants. It does not include rare or specimen plant materials associated with a particular period or style of landscape history. See continuation sheet, p.5.

B12. References, continued:

Cooper, Lara. 2017. "Direct Relief Briefs Santa Barbara Mayor Helene Schneider on Construction of New Headquarters", 7 July. Direct Relief. Available at https://www.directrelief.org/2017/07/direct-relief-briefs-santa-barbara-mayor-helene-schneider-construction-new-headquarters/

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Graham, Darwin Bond. 2008. "Goleta, the Bad Land", 4 August. Available at http://darwinbondgraham.blogspot.com/2008/08/goleta-bad-land-in-may-1960-i-joined.html

Hayden, Tyler. 2019. "Sears Out at La Cumbre; Is Amazon in on State?", *Independent* (Santa Barbara), 28 January.

Historic Resources Group. 2018. City of Goleta Citywide Historic Context Statement Final Administrative Draft, 5 March.

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Raytheon. 2019. "6 Decades: Electronic Warefare, 1950, Raytheon Electromagnetics Systems". Accessed December 23, 2019 at Raytheon.com/sites/default/files/media/sas-ew-timeline/

R.L. Polk & Co.
1967 Santa Barbara City Directory. Accessed at Ancestry.com
1968 Santa Barbara City Directory. Accessed at Ancestry.com
1983 Santa Barbara City Directory. Accessed at Ancestry.com
1984-85 Santa Barbara City Directory. Accessed at Ancestry.com

UCSB Map & Imagery Lab
1972. Aerial photo. Flight 05-SB-101, Frame 1-131, March 9, 1972. Accessed December 16, 2019 at: http://mil.library.ucsb.edu/ap_indexes/FrameFinder/
1980. Aerial photo. Flight USDA FIRESCOPE, Frame 1180-156, October 19, 1980. Accessed December 16, 2019 at: http://mil.library.ucsb.edu/ap_indexes/FrameFinder/



North elevation, view southeast.

Appendix C

Geotechnical Report



GOLETA TRAIN DEPOT PROJECT
GOLETA, CALIFORNIA

GEOTECHNICAL EXPLORATION

SUBMITTED TO
Jim Keenan
Anil Verma Associates, Inc.
444 South Flower Street
Suite 1688
Los Angeles, CA 90071

PREPARED BY
ENGEO Incorporated

March 23, 2020

PROJECT NO.
16370.000.000

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ENGEO
Expect Excellence

Project No.
16370.000.000

March 23, 2020

Mr. Jim Keenan
Anil Verma Associates, Inc.
444 South Flower Street, Suite 1688
Los Angeles, CA 90071

Subject: Goleta Train Depot Project
La Patera Lane
Goleta, California

GEOTECHNICAL EXPLORATION

Dear Mr. Keenan:

ENGEO prepared this geotechnical report for the Goleta Train Depot Project as outlined in our agreement dated June 19, 2019. We characterized the subsurface conditions at the site to provide the enclosed geotechnical recommendations for design.

Our experience and that of our profession clearly indicate that the risk of costly design, construction, and maintenance problems can be significantly lowered by retaining the design geotechnical engineering firm to review the project plans and specifications and provide geotechnical observation and testing services during construction. Please let us know when working drawings are nearing completion, and we will be glad to discuss these additional services with you.

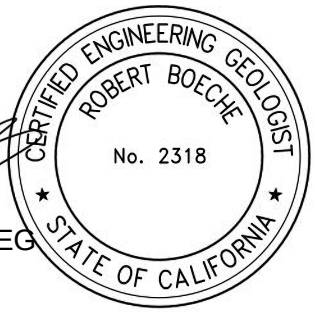
If you have any questions or comments regarding this report, please call and we will be glad to discuss them with you.

Sincerely,

ENGEO Incorporated



Randy Hildebrant, GE
rh/rhb/dt



Robert H. Boeche, CEG

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APPENDIX C – Percolation Test Data

1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE

ENGEO prepared this geotechnical report for design of a train depot in Goleta, California. We prepared this report as outlined in our agreement dated June 19, 2019. Anil Verma Associates, Inc. authorized ENGEO to conduct the following scope of services.

- Site reconnaissance, review of available geologic maps, and review of available on-line or in-house aerial photographs and historical topographs.
- Drilling five auger borings at accessible areas of the site to a maximum depth of 50 feet and four percolation test holes.
- Sampling and laboratory testing of select samples.
- Data analysis and conclusions.
- Report preparation.

For our use, we received the Request for Proposal for Professional Design Services for The Goleta Train Depot Project dated January 17, 2019, by the City of Goleta.

This report was prepared for the exclusive use of our client and their consultants for design of this project. In the event that any changes are made in the character, design, or layout of the development, we must be contacted to review the conclusions and recommendations contained in this report to evaluate whether modifications are recommended. This document may not be reproduced in whole or in part by any means whatsoever, nor may it be quoted or excerpted without our express written consent.

EXHIBIT 1.1-1



1.2 PROJECT LOCATION

Figure 1 displays a Vicinity Map. The proposed Train Depot site is located at 27 South La Patera Lane, in Goleta, California. The project also consists of improvement for South La Patera Lane from the train station and extending south to Hollister Avenue.

Figure 2 shows site boundaries and our exploratory locations. The site is bordered on the north by land owned by Union Pacific Railroad, which includes the existing train station platform. The lot south of the proposed train station depot site includes multiple buildings and their associated parking lots. The train depot site is bonded by an existing warehouse to the west and South La Patera Lane to the east. Improvements are also proposed for South La Patera Lane from the existing train station extending to Hollister Avenue.

Currently, a warehouse, loading platforms, and parking lots occupy the property. The warehouse occupies roughly half the train depot project area and is located in the northern middle of the project area. There is an approximately 4-foot grade change from exterior grades to the top of the loading platforms. Existing fuel tanks associated with an onsite power generator are located adjacent to the southwest corner of the existing warehouse and the approximate location is noted on Figure 2.

EXHIBIT 1.2-1



1.3 PROJECT DESCRIPTION

Based on our discussions with you and review of the information provided, we understand that the following site improvements are proposed:

1. Earthwork is assumed to be composed only of minor grading.

2. Demolition of the existing warehouse and construction of an 8,000-square-foot single-story train depot of light-framed construction.

3. Paved access ways and parking.

4. Utilities and other infrastructure improvements such as improvements to the north end of South La Patera Lane.

5. Concrete flatwork.

6. Post-construction stormwater treatment.

The depot building and parking will be located on land owned by the City of Goleta, located immediately adjacent to the existing platform. The train depot building will include a lobby, ticketing area, waiting room, café, community room, restrooms/shower/changing facilities, bike storage, and baggage lockers. The proposed project will not be modifying the existing platform and it is assumed new improvements will be outside of Railroad Right-of-Way. The project will also include access improvements along South La Patera Lane between Hollister Avenue and the proposed depot.

2.0 FINDINGS

2.1 SITE HISTORY

We reviewed available historical aerial photographs on www.historicaerials.com. The 1947 photograph shows the project site covered with orchards. The 1953 photograph shows the project site cleared of the orchards with the existing warehouse structure shown in the 1967 photograph.

2.2 GEOLOGY AND SEISMICITY

2.2.1 Geology

According to the United States Geologic Survey (USGS) (Minor et al. 2007, Figure 3), the train depot project area and the majority of South La Patera Lane is mapped as an area with upper Pleistocene-aged intermediate alluvial deposits consisting of weakly consolidated, stratified silt, sand, and gravel that form low, rounded, moderately dissected terraces and piedmont alluvial fans that rest at higher elevations compared to the younger than the younger Holocene- and upper Pleistocene-aged coastal piedmont alluvium and colluvium at lower elevations. The area near the intersection of South La Patera Lane with Hollister Avenue is mapped as Holocene- and upper Pleistocene-aged alluvium and colluvium consisting of poorly consolidated silt, sand, and gravel deposits of modern drainages and piedmont alluvial fans and floodplains.

2.2.2 Seismicity

The Santa Barbara County area contains numerous active earthquake faults. An active fault is defined by the State Mining and Geology Board as one that has had surface displacement within Holocene time (about the last 11,000 years) (Bryant and Hart, 2007).

The site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone and no known surface expression of active faults is believed to exist within the site. Fault rupture through the site, therefore, is not anticipated.

The site does lie within a seismically active region. According to a search using the 2008 National Seismic Hazard Maps spatial search feature, the nearest active fault is the Mission Ridge-Arroyo Parida-Santa Ana fault, which is mapped approximately 0.6 mile from the site. This fault is considered capable of a moment magnitude earthquake of 6.9. Other active faults in the region are summarized in the table below.

TABLE 2.2.2-1: Active Faults Capable of Producing Significant Ground Shaking at the Site

FAULT NAME	DISTANCE FROM SITE (MILES)	MAXIMUM MOMENT MAGNITUDE
Mission Ridge-Arroyo Parida-Santa Ana	0.6	6.9
Red Mountain	4.0	7.4
North Channel	6.2	6.8
Pitas Point Connected	7.0	7.3
Santa Ynez Connected	7.8	7.4
Oak Ridge Connected	15.8	7.4

The regional seismicity of the Central California Coast was recently evaluated by the Working Group on Southern California / Los Angeles Region. Their UCERF3 model estimates a greater increase in the likelihood of larger earthquakes in the region compared to most of California, because the region has more faults that can host multi-fault ruptures. The UCERF3 model concurs with previous studies that consider the Southern San Andreas Fault, located approximately 43 miles northeast of the site, the most likely to host a large earthquake.

According to UCERF2 & 3, the 30-year probability for a Magnitude 6.7 or greater earthquake along the Mission Ridge-Arroyo Parida-Santa Ana, Subsection 1, nearest to the site, is 0.30%. The 30-year probability for a Magnitude 6.7 or greater earthquake on the Red Mountain Fault, Subsection 6, is 2.84% and 3.20% on Subsection 5 of that same fault. Estimates for the Pitas Point fault is about 1.1%. Santa Ynez Fault Zone Subsection 13 estimates are about 1.76 % and 2.34% for the Oak Ridge fault (Onshore), Subsection 0. UCERF3 shows the Channel Islands Western Deep Ramp fault, Subsection 0, located 11.4 miles south of the site, with a 0.47% probability of a >6.7M earthquake within the next 30 years.

Based on the historic seismicity, the proximity of known active faults, and the estimated earthquake probabilities for the Central California area as a whole, it should be expected that the site will experience strong seismic ground shaking during the lifetime of the proposed improvements. The ground shaking hazard levels at the site are similar to those for most of the Central Coast.

2.3 FIELD EXPLORATION

Our field exploration included an initial hand auger exploration and placement of a shallow piezometer, drilling five borings, and performing four percolation tests. We performed our field exploration between August 12 and August 14, 2019, and completed the preliminary hand auger on July 1, 2019. The deepest boring terminated at 51½ feet below the ground surface.

The location and elevations of our explorations are approximate and were estimated by pacing from features shown on Figure 2; they should be considered accurate only to the degree implied by the method used.

2.3.1 Hand Auger

We performed a hand auger boring near the intersection of South La Patera Lane and Hollister Avenue to a maximum depth of 13½ feet below the ground surface. Following the boring, we placed a PVC pipe with perforations in the lower approximately 2 feet and backfilled the annulus with pea gravel. The location of the hand auger boring is shown on Figure 2 and the boring log is included in Appendix A.

2.3.2 Borings

We observed drilling of five borings at the locations shown on the Site Plan, Figure 2. An ENGEO Engineer observed the drilling and logged the subsurface conditions at each location. We retained a CME 75 – Rubber Track Mounted Drill Rig and crew to advance the borings using 8-inch-diameter hollow-stem auger methods. The borings were advanced to depths ranging from 11½ to 51½ feet below existing grade.

We obtained bulk soil samples from drill cuttings and retrieved disturbed soil samples at various intervals in the borings using both a Standard Penetration Test split spoon sampler and 3-inch outer diameter (O.D.) split-spoon sampler outfitter with 2.5-inch diameter stainless steel liners.

The blow counts were obtained by using a 140-pound auto-hammer with a 30-inch free fall. The samplers were driven 18 inches and the number of blows were recorded for each 6 inches of penetration. Unless otherwise indicated, the blows per foot recorded on the boring log represent the accumulated number of blows to drive the last 1 foot of penetration; the blow counts have not been converted using any correction factors. When sampler driving was difficult, penetration was recorded only as inches penetrated for 50 hammer blows. We used the field logs to develop the boring logs presented in Appendix A.

The boring logs graphically depict the subsurface conditions encountered at the time of exploration, and describe the soil type, color, consistency, and visual classification in general accordance with the United Soil Classification System (USCS). Subsurface conditions at other locations may differ from conditions occurring at these boring locations, and the passage of time may result in altered subsurface conditions. In addition, stratification lines represent the approximate boundaries between soil types, and the transitions may be gradual.

PHOTO 2.3.2-1: Boring Inside Existing Warehouse



2.3.3 Percolation Tests

Percolation testing was performed using the borehole method as generally described in The Guidelines for Geotechnical Investigation and Reporting Low Impact Development Stormwater Infiltration dated June 30, 2017, by the County of Los Angeles Department of Public Works Geotechnical and Materials Engineering Division. Percolation Test Holes P1 through P3 were drilled with a 6-inch solid-stem auger while Percolation Test Hole P4 was drilled with an 8-inch hollow-stem auger. All locations were generally performed to an approximate depth of 4½ feet. The bottom 1 to 2 inches was covered with pea gravel, a 4-inch perforated pipe was inserted, and annulus filled with 1-inch minus river rock. All test locations were filled with water to the ground surface a minimum of the day prior to running the test to obtain a near saturated condition. Prior to running the test procedure, water was either added or removed to provide the initial 12 inches of water, measured from the top of the pea gravel. The water level was measured in frequent intervals over the course of 8 hours with a final measurement taken the following day prior to backfilling of the test holes. A bulk soil sample was collected from the upper 1 to 3 feet of Test P2. Other percolation test locations were adjacent to boring locations.

2.4 SURFACE CONDITIONS

The train depot project site is generally level with a loading ramp located in the northeastern portion. The existing warehouse covers roughly half the project site with either asphalt pavement or concrete covering the remaining surface with small landscape areas near South La Patera Lane. The existing warehouse floor elevation is up to about 4 feet higher than surrounding grade to accommodate loading without a ramp in the northwestern portion. There is about a 20-foot

elevation differential between the train depot location and the intersection of South La Patera Lane and Hollister Avenue. As noted previously, underground fuel tanks are located adjacent to the southwest corner of the warehouse. Area drains are also located throughout the hardscape area.

PHOTO 2.4-1: East Side of Train Station Depot Site



PHOTO 2.4-2: West Side of Train Station Depot Site



PHOTO 2.4-3: South La Patera Lane at Hollister Avenue



2.5 SUBSURFACE CONDITIONS

The borings generally encountered an upper layer of stiff to hard sandy lean clay, which ranged between 8 and 14 feet in thickness. The Plasticity Index ranged between 2 and 21, indicating a low to medium shrink/swell potential. Underlying the clay, the borings encountered varying layers of clayey sand, silty sand, silt, and lean clay. Sandy layers ranged from medium dense to very dense and clayey layers were stiff to hard. Borings 1-B2 and 1-B3 encountered a hard lean clay layer with marine shells at depths of approximately 38 feet and 35 feet respectively. Underlying the existing warehouse, Boring 1-B3 encountered approximately 5 feet of hard lean clay fill with Plasticity Indices ranging between 8 and 31, indicating high variability of the fill and a low to high shrink/swell potential.

Consult the Site Plan and exploration logs for specific subsurface conditions at each location. We include our exploration logs in Appendix A. The logs contain the soil type, color, consistency, and visual classification in general accordance with the Unified Soil Classification System. The logs graphically depict the subsurface conditions encountered at the time of the exploration.

2.6 GROUNDWATER CONDITIONS

We observed static groundwater in two of our subsurface explorations. Groundwater was encountered at 20 feet below the ground surface at boring 1-B5 and 30 feet below the ground surface at Boring 1-B2. Boring 1-B5 is located nearly 1,500 feet from the train depot project site

Fluctuations in the level of groundwater may occur due to variations in rainfall, irrigation practice, and other factors not evident at the time measurements were made.

2.7 LABORATORY TESTING

Select samples recovered during drilling activities were tested to determine various soil characteristics:

TABLE 2.7-1: Laboratory Testing

CHARACTERISTIC	TEST METHOD
Natural Moisture Content	ASTM D2216
Plasticity Index	ASTM D4318
Hydrometer	ASTM D422
Particle Size Distribution	ASTM D1140
Unconfined Compression	ASTM D2166
R-Value	CTM-301

Moisture contents, dry densities, plasticity indices, and fines contents are recorded on the boring logs in Appendix A; other laboratory data and individual test results are included in Appendix B.

3.0 CONCLUSIONS

From a geotechnical engineering viewpoint, in our opinion, the site is suitable for the proposed development, provided the geotechnical recommendations in this report are properly incorporated into the design plans, specifications, and construction. The primary geotechnical concerns that could affect development on the site is expansive soils and strong ground shaking. We summarize our conclusions below.

3.1 EXPANSIVE SOILS

We observed potentially expansive lean clay near the surface of the site in Borings 1-B2, 1-B3, and 1-B4, which may exhibit low to high shrink/swell potential with variations in moisture content.

Expansive soils change in volume with changes in moisture. They can shrink or swell and cause heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations. Building damage due to volume changes associated with expansive soils can be reduced by: (1) using a rigid mat foundation that is designed to resist the settlement and heave of expansive soil, (2) deepening the foundations to below the zone of moisture fluctuation, i.e. by using deep footings or drilled piers, and/or (3) using footings at normal shallow depths but bottomed on a layer of select fill having a low expansion potential.

Successful performance of structures on expansive soils requires special attention during construction. It is imperative that exposed soils be kept moist prior to placement of concrete for foundation construction. It can be difficult to remoisturize clayey soils without excavation, moisture conditioning, and recompaction.

We have also provided specific grading recommendations for compaction of clay soil at the site. The purpose of these recommendations is to reduce the swell potential of the clay by compacting the soil at a high moisture content and controlling the amount of compaction. The effects of expansive soil may be reduced with proper foundation design and construction.

3.2 EXISTING FILL

Our borings indicate that portions of the site are underlain by existing fill. It is unclear what level of moisture conditioning or compaction was performed on the fill without proper documentation.

Without proper documentation of existing fill placed on the site, we recommend complete removal and recompaction of the existing fill. We present fill removal recommendations in Section 5.1.

3.3 SEISMIC HAZARDS

Potential seismic hazards resulting from a nearby moderate to major earthquake can generally be classified as primary and secondary. The primary effect is ground rupture, also called surface faulting. The common secondary seismic hazards include ground shaking, and ground lurching. The following sections present a discussion of these hazards as they apply to the site. Based on topographic and lithologic data, the risk of regional subsidence or uplift, landslides, and seiches is considered low to negligible at the site.

3.3.1 Ground Rupture

Since there are no known active faults crossing the property and the site is not located within an Earthquake Fault Special Study Zone, it is our opinion that ground rupture is unlikely at the subject property.

3.3.2 Ground Shaking

An earthquake of moderate to high magnitude generated within the Santa Barbara region could cause considerable ground shaking at the site, similar to that which has occurred in the past. To mitigate the shaking effects, structures should be designed using sound engineering judgment and the most recent California Building Code (CBC) requirements, as a minimum. Seismic design provisions of current building codes generally prescribe minimum lateral forces, applied statically to the structure, combined with the gravity forces of dead-and-live loads. The code-prescribed lateral forces are generally considered to be substantially smaller than the comparable forces that would be associated with a major earthquake. Therefore, structures should be able to: (1) resist minor earthquakes without damage, (2) resist moderate earthquakes without structural damage but with some nonstructural damage, and (3) resist major earthquakes without collapse but with some structural as well as nonstructural damage. Conformance to the current building code recommendations does not constitute any kind of guarantee that significant structural damage would not occur in the event of a maximum magnitude earthquake; however, it is reasonable to expect that a well-designed and well-constructed structure will not collapse or cause loss of life in a major earthquake (SEAOC, 1996).

3.3.3 Liquefaction

Seismically induced soil liquefaction is a process by which soil undergoes a significant loss of strength due to cyclic loading and corresponding increase in pore water pressure. The effects of liquefaction can be a drastic decrease in soil shear strength, vertical settlement, lateral spreading and ground surface disruptions. Soils most susceptible to liquefaction are clean, loose, saturated, uniformly graded fine sands below the groundwater table. Empirical evidence and laboratory testing indicates that loose to medium dense gravels, silty sands, low-plasticity silts, and some low-plasticity clays are also potentially liquefiable.

We performed a liquefaction potential analysis of blow count to estimate liquefaction potential using the procedure introduced by the 1996 National Center for Earthquake Engineering Research (NCEER) workshop and the 1998 NCEER/National Science Foundation (NSF) workshop. The workshops are summarized by Youd et al. (2001). The Cyclic Stress Ratio (CSR) was estimated from the PGA_M of 1.11g. The Magnitude Scaling Factor (MSF) was estimated for a mean Moment Magnitude of 7.4. The results indicate that a silty sand layer located below the groundwater level in Boring 1-B3 is potentially liquefiable.

3.3.4 Seismically Induced Settlement Analyses

Seismically induced settlement can be generally subdivided into two categories for granular soils, settlement as a result of liquefaction of saturated or nearly saturated soils and dynamic densification of non-saturated soils. We have included recommendations for mitigation of seismic settlement in our Foundation Recommendations.

3.3.4.1 Liquefaction-Induced Settlement

Deformation of the ground surface is a common result of liquefaction. Vertical settlement may result from densification of the deposit or volume loss from venting to the ground surface. Densification occurs as excess pore pressures dissipate, resulting as vertical settlement at the ground surface. In addition to the above analysis, we also evaluated the capping effect of any overlying non-liquefiable soils. In order for liquefaction-induced ground failure to occur, the pore water pressure generated within the liquefied strata must exert a sufficient enough force to break through the overlying soil and vent to the surface resulting in sand boils or fissures.

In 1985, Ishihara presented preliminary empirical criteria to assess the potential for ground surface disruption at liquefiable sites based on the relationship between thickness of liquefiable sediments and thickness of overlying non-liquefiable soil. A more recent study by Youd and Garris (1995) expanded on the work of Ishihara to include data from over 308 exploratory borings, 15 different earthquakes, and several ranges of recorded peak ground acceleration.

Based on the above studies and thickness of liquefiable material, it appears there is a sufficient cap of non-liquefiable material to reduce the risk of surface venting.

We calculated potential liquefaction-induced settlement estimate using Ishihara and Yoshimine (1992). We estimate the total liquefaction-induced settlement based on Boring 1-B3 to be less that 1 inch.

3.3.4.2 Dynamic Densification

Densification of loose granular soil above the water table can cause settlement of the ground surface due to earthquake-induced vibrations. Sands encountered above the assumed groundwater level at the site medium dense to dense. We estimate that these deposits may settle up to about ⅓ inch in Boring 1-B2 using the procedure by Tokimatsu and Seed (1984/1987).

3.3.5 Lateral Spreading

Lateral spreading is a failure within weaker soil material, such as lurching or liquefaction, which causes the soil to move toward a free face or down a slope. Due to relatively level topography and distance to free faces, it is our opinion that the risk of lateral spreading is low.

3.3.6 Ground Lurching

Ground lurching is a result of the rolling motion imparted to the ground surface during energy released by an earthquake. Such rolling motion can cause ground cracks to form in weaker soils. The potential for the formation of these cracks is considered greater at contacts between deep alluvium and bedrock. Such an occurrence is possible at the site as in other locations in the Santa Barbara region, but based on the site location, it is our opinion that the offset is expected to be minor. We provide recommendations for foundation and pavement design in this report that are intended to reduce the potential for adverse impacts from lurch cracking.

3.3.7 Flooding and Tsunamis

The Civil Engineer should review pertinent information relating to possible flood levels for the subject site based on final pad elevations and provide appropriate design measures for development of the project, if recommended.

3.4 STATIC AND PERCHED GROUNDWATER

It does not appear that the static groundwater level beneath the site is likely to affect the proposed development. However, perched water can:

1. Impede grading activities.

2. Cause moisture damage to sensitive floor coverings.

3. Transmit moisture vapor through slabs causing excessive mold/mildew build-up, fogging of windows, and damage to computers and other sensitive equipment.

4. Cause premature pavement failure if hydrostatic pressures build up beneath the section.

We provide recommendations to reduce the effects of perched water in subsequent sections including the use of vapor retarders and cut-off curbs.

3.5 SOIL CORROSION POTENTIAL

As part of this study, we obtained representative soil samples from both the project site and the borrow site and submitted to a qualified analytical lab for determination of pH, resistivity, sulfate, and chloride. The results are included in Appendix B and summarized in the table below.

TABLE 3.5-1: Corrosion Potential Test Results

SAMPLE NUMBER AND DEPTH	REDOX POTENTIAL (mV)	pH	RESISTIVITY (ohms-cm)	CHLORIDE CONCENTRATION (mg/kg)	SULFATE CONCENTRATION (mg/kg)
1-B2 @ 1-3’	180	8.85	1,900	N.D.	30
1-B3 @ 1-3’	200	7.87	1,400	N.D.	43
1-B4 @ 1-3’	210	7.71	4,400	N.D.	25

According to Cerco Analytical, based upon the resistivity measurements, 1-B2 @ 1-3’ and 1-B3 @ 1-3’ are classified as “corrosive” and 1-B4 @ 1-3’ is classified as “moderately corrosive.” All buried iron, steel, cast iron, ductile iron, galvanized steel, and dielectric coated steel or iron should be properly protected against corrosion.

The chloride ion concentrations were reported as none detected with a reporting limit of 15 mg/kg.

The sulfate ion concentrations are determined to be insufficient to damage reinforced concrete structures and cement mortar-coated steel at these locations.

The pH of the soils ranged from 7.71 and 8.85 and does not present corrosion problems for buried iron, steel, mortar-coated steel, and reinforced concrete structures.

The redox potential of 1-B2 @ 1-3' is indicative of potentially "moderately corrosive" soils and the remaining samples are indicative of potentially "slightly corrosive" soils resulting from anaerobic soil conditions.

Considering a 'Not Applicable' sulfate exposure according to ACI 318, a minimum concrete compressive strength of 2,500 psi is specified by the building code. It should be noted, however, that the structural engineering design requirements for concrete may result in more stringent concrete specifications. We recommend using a maximum water-to-cement ratio of 0.50 to reduce vapor intrusion. If desired to investigate further, we recommend consultation with a corrosion engineer.

3.6 NATURALLY OCCURRING RADON GAS

Radon is a radioactive gas formed by the decay of small amounts of uranium and thorium naturally present in rock and soil. Sometimes radon gas can move from underlying soil and rock into houses and become concentrated in indoor air. According to research performed by the California Geological Survey (CGS) (Churchill, 2008) high radon potential areas relate to a group of Monterey Formation geologic units and portions of adjacent alluvial units that have a Monterey Formation component. In Santa Barbara and Ventura counties, Rincon Shale was identified as a radon prone geologic unit (Churchill, 1997). The CGS has mapped the project area as an area overlain by soil and rock was not encountered in any of our exploration locations, therefore, the potential for naturally occurring radon gas is low.

4.0 CONSTRUCTION MONITORING

Our experience and that of our profession clearly indicate that the risk of costly design, construction, and maintenance problems can be significantly lowered by retaining the design geotechnical engineering firm to:

1. Review the final grading, improvement, and foundation plans and specifications prior to construction to evaluate whether our recommendations have been implemented, and to provide additional or modified recommendations, as needed. This also allows us to check if any changes have occurred in the nature, design or location of the proposed improvements and provides the opportunity to prepare a written response with updated recommendations.

2. Perform construction monitoring to check the validity of the assumptions we made to prepare this report. Earthwork operations should be performed under the observation of our representative to check that the site is properly prepared, the selected fill materials are satisfactory, and that placement and compaction of the fills has been performed in accordance with our recommendations and the project specifications. Sufficient notification to us prior to earthwork is important.

If we are not retained to perform the services described above, then we are not responsible for any party's interpretation of our report (and subsequent addenda, letters, and verbal discussions).

5.0 EARTHWORK RECOMMENDATIONS

As used in this report, relative compaction refers to the in-place dry unit weight of soil expressed as a percentage of the maximum dry unit weight of the same soil, as determined by the ASTM D1557 laboratory compaction test procedure, latest edition. Compacted soil is not acceptable if it is unstable; it should exhibit only minimal flexing or pumping, as observed by an ENGEO representative. The term "moisture condition" refers to adjusting the moisture content of the soil by either drying if too wet or adding water if too dry.

We define "structural areas" as any area sensitive to settlement of compacted soil. These areas include, but are not limited to building pads, sidewalks, pavement areas, and retaining walls.

5.1 EXISTING FILL REMOVAL

In the area of the proposed building structure, remove existing fill to competent native soil, as evaluated by an ENGEO representative. The lateral extent and depth of fill is expected to vary. Fill should be more prominent underlying the existing warehouse structure and is estimated to be up to about 5 feet in thickness. Removed material may be reused as engineered fill if it meets the recommendations of Section 5.4; however, due to the relative shrink/swell potential compared to the native site material, we do not recommend the existing fill be placed within the envelope of the proposed train station depot building if conventional footings with slab-on-grade is utilized for the foundation type. Fill may remain in place in areas outside the proposed building if the fill, as observed by ENGEO, appears firm and meets the recommendations of Section 5.4.

5.2 GENERAL SITE CLEARING

Areas to be developed should be cleared of surface and subsurface deleterious materials, including existing building foundations, slabs, buried tanks, utility and irrigation lines, pavements, debris, and designated trees, shrubs, and associated roots. Clean and backfill excavations extending below the planned finished site grades with suitable material compacted to the recommendations presented in Section 5.6. Retain ENGEO to observe and test backfilling.

5.3 OVER-OPTIMUM SOIL MOISTURE CONDITIONS

The contractor should anticipate encountering excessively over-optimum (wet) soil moisture conditions during winter or spring grading, or during or following periods of rain. Wet soil can make proper compaction difficult or impossible. Wet soil conditions can be mitigated by:

1. Frequent spreading and mixing during warm dry weather.
2. Mixing with drier materials.
3. Mixing with a lime, lime-flash, or cement product; or
4. Stabilizing with aggregate, geotextile stabilization fabric, or both.

Options 3 and 4 should be evaluated by ENGEO prior to implementation.

5.4 ACCEPTABLE FILL

Onsite soil material is suitable as fill material provided it is processed to remove concentrations of organic material, debris, and particles greater than 4 inches in maximum dimension.

Imported fill materials should meet the above requirements and have a plasticity index less than 12. Allow ENGEO to sample and test proposed imported fill materials at least 5 days prior to delivery to the site.

5.5 REUSE OF ONSITE RECYCLED MATERIALS

If desired to reuse asphaltic or Portland Cement concrete as engineered fill, we recommend that it be ground up and thoroughly mixed with onsite or import soil. In general, recycled asphalt or concrete should be ground down to less than 4 inches in greatest dimension, with no more than 25 percent larger than 2½ inches. Recycled material should be thoroughly mixed with a sufficient amount of soil, such that there is no more than 40 percent by weight of recycled material in the final mix.

We recommend that fill containing recycled asphalt and concrete be placed near the bottom of the proposed basement fills and/or spread out evenly across the site. Recycled fill should not be used within 2 feet of finished grade in building or roadway areas.

If proper equipment is used and quality control standards implemented, recycled material may be used as Class 2 Aggregate Subbase or Base if laboratory testing shows it meets Caltrans specifications for the material.

5.6 FILL COMPACTION

5.6.1 Grading in Structural Areas

The exposed non-yielding surface to receive fill or improvements should be scarified to a depth of 8 inches, moisture conditioned, and recompacted to provide adequate bonding with the initial lift of fill. Fill should be placed in loose lifts lift thickness not exceeding 8 inches.

We provide the following compaction recommendations:

TABLE 5.6.1-1: Compaction Recommendations

FILL DEPTH FROM PROPOSED FINISH GRADE	MINIMUM PERCENTAGE POINTS OVER OPTIMUM MOISTURE CONTENT	RELATIVE COMPACTION
Onsite soil	3	90% min.
Non-expansive building pad fill	0	95% min.
Pavement Subgrade (upper 12 inches)	2	95% min.
Non-expansive trench backfill	0	90% min.
Caltrans Class 2 AB (sidewalk, pavement, curb, and gutter)	0	95% min

Relative compaction refers to in-place dry density of the fill material expressed as a percentage of the maximum dry density (as determined by ASTM D-1557). Optimum moisture is the moisture content corresponding to the maximum dry density.

5.6.2 Underground Utility Backfill

The contractor is responsible for conducting all trenching and shoring in accordance with CALOSHA requirements. Project consultants involved in utility design should specify pipe-bedding materials. Trench backfill should be compacted in accordance with the recommendations provided in Section 5.6.1. In general, we do not recommend the use of rock backfill with little to no fines. ENGEO should be consulted prior to use.

Where utility trenches cross underneath buildings, we recommend that a plug be placed within the trench backfill to help prevent the normally granular bedding materials from acting as a conduit for water to enter beneath the building. The plug should be constructed using a sand cement slurry (minimum 28-day compressive strength of 500 psi) or relatively impermeable native soil for pipe bedding and backfill. We recommend that the plug extend for a distance of at least 3 feet in each direction from the point where the utility enters the building perimeter.

Jetting of backfill is not an acceptable means of compaction. We may allow thicker loose lift thicknesses based on acceptable density test results, where increased effort is applied to rocky fill or for the first lift of fill over pipe bedding.

5.7 SITE DRAINAGE

5.7.1 Surface Drainage

The project civil engineer is responsible for designing surface drainage improvements. With regard to geotechnical engineering issues, we recommend that finish grades be sloped away from buildings and pavements to the maximum extent practical to reduce the potentially damaging effects of expansive soil. The latest California Building Code Section 1804.4 specifies minimum slopes of 5 percent away from foundations. Where property boundaries or surface improvements restrict meeting this slope requirement, we recommend that specific drainage requirements be developed. As a minimum, we recommend the following:

1. Discharge roof downspouts into closed conduits and direct away from foundations to appropriate drainage devices.

2. Do not allow water to pond near foundations, pavements, or exterior flatwork.

5.8 STORMWATER INFILTRATION

We performed percolation testing on August 14, 2019. Generally, percolation rates are very low, less than 2¼ inches over an 8-hour period. A final measurement was taken the morning of August 15, 2019 prior to backfilling the holes with cement grout. This is further supported by the density and stiffness of the site soils and fines content (percentage passing the No. 200 sieve) generally exceeding 30 percent. Percolation test results are included in Appendix C. In some of the test locations, the readings show an increase in water level within the borehole with time. We speculate that due to the very low percolation rate and removing water to establish 12 inches of water for a starting point, water seeped into the borehole from the wetted sidewalls. Therefore, the following percolation rates were calculated from the final reading a day after the initial start of the test. No correction factors have been applied to the below percolation rates.

TABLE 5.8-1: Percolation Rates

TEST LOCATION	SOIL	PERCOLATION RATE
P-1	Sandy Lean Clay	1,490 min/in
P-2	Sandy Lean Clay	945 min/in
P-3	Sandy Silt	446 min/in
P-4	Sandy Lean Clay	390 min/in

In accordance with the Stormwater Technical Guide for Low Impact Development, Compliance with Stormwater Post-Construction Requirements in Santa Barbara County dated February 18, 2014, onsite testing information is used to generally justify using an infiltration rate of 0.5 in/hr (120 min/in) or greater. Therefore, Best Management Practices should assume that negligible stormwater infiltration will occur at the site.

6.0 FOUNDATION RECOMMENDATIONS

We developed foundation recommendations using data obtained from our field exploration, laboratory test results, and engineering analysis. As previously mentioned, foundations should be appropriate to reduce the effects of expansive soil. We recommend three foundation types.

- Post-tensioned mat slab.
- Conventionally reinforced mat slab.
- Conventional footings with interconnected grade-beams, slab-on-grade, and non-expansive pad cap.

6.1 POST-TENSIONED MAT SLAB

The proposed train station depot building may be supported on post-tensioned (PT) mat foundations bearing on prepared native soil or engineered fill.

The Structural Engineer should determine the actual PT mat thickness using the geotechnical recommendations in this report; we defer to the professional judgment of the Structural Engineer on the necessary mat thickness. ENGEO should be retained to review the PT mat foundation design. We recommend that the thickened edge be at least 12 inches wide.

The PT mat may be designed for an average allowable bearing pressure of up to 1,000 pounds per square foot (psf) for dead-plus-live loads with maximum localized bearing pressures of 1,500 psf at column or wall loads. Allowable bearing pressures can be increased by one-third for wind or seismic loads. Design PT mats using the criteria presented in Table 6.1-1.

TABLE 6.1-1: Post-Tensioned Mat Design Recommendations

CONDITION	CENTER LIFT	EDGE LIFT
Edge Moisture Variation Distance, e_m (feet)	**7.7**	**4.1**
Differential Soil Movement, y_m (inches)	**0.5**	**1.2**

The above values are based on the procedure presented by the Post-Tensioning Institute “Design of Post-Tensioned Slabs-on-Ground” Third Edition, including appropriate addenda (2004) or “Standard Requirements for Design and Analysis of Shallow Post-Tensioned Concrete Foundations on Expansive Soils” (PTI DC 10.5-12).

Underlay PT mats with a moisture reduction system as recommended below. In addition, moisture conditioning of the building foundation subgrade should be to a moisture content at least five percentage points above optimum immediately prior to foundation construction. The subgrade should not be allowed to dry prior to concrete placement. We also recommend that ENGEO be retained to observe the pre-pour moisture conditions to check that our report recommendations have been followed.

6.1.1 Additional Settlement Requirements

We recommend that PT mats designed in accordance with the above recommendations be checked for a differential settlement of ½ inch over a distance of 30 feet for the non-collapse seismic case.

6.1.2 Slab Moisture Vapor Reduction

When buildings are constructed with concrete slab-on-grade, such as post-tensioned mats, water vapor from beneath the slab will migrate through the slab and into the building. This water vapor can be reduced but not stopped. Vapor transmission can negatively affect floor coverings and lead to increased moisture within a building. When water vapor migrating through the slab would be undesirable, we recommend the following to reduce, but not stop, water vapor transmission upward through the slab-on-grade.

1. Install a vapor retarder membrane directly beneath the slab. Seal the vapor retarder at all seams and pipe penetrations. Vapor retarders shall conform to Class A vapor retarder in accordance with ASTM E 1745, latest edition, “Standard Specification for Plastic Water Vapor Retarders used in Contact with Soil or Granular Fill under Concrete Slabs.”

2. Concrete shall have a concrete water-cement ratio of no more than 0.50.

3. Provide inspection and testing during concrete placement to check that the proper concrete and water cement ratio are used.

4. Moist cure slabs for a minimum of 3 days or use other equivalent curing specific by the structural engineer.

The structural engineer should be consulted as to the use of a layer of clean sand or pea gravel (less than 5 percent passing the U.S. Standard No. 200 Sieve) placed on top of the vapor retarder membrane to assist in concrete curing.

6.2 CONVENTIONALLY REINFORCED MAT SLAB

The structure may, alternatively, be supported on conventionally reinforced mat foundation. We recommend the mat be designed to cantilever 6 feet at the perimeter and free span interior areas for a distance of 20 feet. The PT mat may be designed for an average allowable bearing pressure of up to 1,000 pounds per square foot (psf) for dead-plus-live loads with maximum localized bearing pressures of 1,500 psf at column or wall loads. These values may be increased by one-third when considering transient loads, such as wind or seismic. Provided the site earthwork is conducted in accordance with the recommendations of this report, a subgrade modulus of 100 psi/in can be used for structural slab design.

The foundation system should be designed to accommodate the settlement recommended in Section 6.1.1.

Vapor transmission through the mat should be reduced by implementing the recommendations in Section 6.1.2.

6.3 CONVENTIONAL FOOTINGS WITH SLAB-ON-GRADE

The proposed train depot can also be supported on continuous or isolated spread footings bearing in competent native soil or compacted fill in combination with non-expansive material supporting the slab-on-grade. Isolated footings should be structurally connected with grade-beams in at least two orthogonal horizontal directions to increase rigidity of the foundation system.

Due to the expansion potential of the near-surface soil, we recommend that interior floor slabs be supported on non-expansive fill to reduce the likelihood of slab damage from heave or shrinkage. For a conventional interior slab, we recommend a minimum 24 inches of non-expansive fill. The non-expansive fill should extend a minimum of five feet beyond the building envelope. The non-expansive fill should have a PI of 12 or less, have sufficient fines, and low corrosion potential for the foundation concrete. A sample of non-expansive fill should be provided to ENGEO a minimum of 5 days prior to delivering to the project site.

6.3.1 Footing Dimensions and Allowable Bearing Capacity

Provide minimum footing dimensions as follows in the Table 6.3.1-1 below.

TABLE 6.3.1-1: Minimum Footing Dimensions

FOOTING TYPE	*MINIMUM DEPTH (INCHES)	MINIMUM WIDTH (INCHES)
Continuous	**24**	**12**
Isolated	**24**	**24**

Minimum footing depths shown above are taken from lowest adjacent pad grade. The cold joint between the exterior footing and slab-on-grade should be located at least 4 inches above adjacent exterior grade.

Design foundations recommended above for a maximum allowable bearing pressure of 2,500 pounds per square foot (psf) for dead-plus-live loads. Increase this bearing capacity by one-third for the short-term effects of wind or seismic loading.

The maximum allowable bearing pressure is a net value; the weight of the footing may be neglected for design purposes. Footings located adjacent to utility trenches should have their bearing surfaces below an imaginary 1:1 (horizontal:vertical) plane projected upward from the bottom edge of the trench to the footing.

6.3.2 Waterstop

If a two-pour system is used for footings and slab, the cold joint between the exterior footing and slab-on-grade should be located at least 4 inches above adjacent finish exterior grade. If this is not done, then we recommend the addition of a waterstop between the two pours to reduce

moisture penetration through the cold joint and migration under the slab. Use of a monolithic pour would eliminate the need for the waterstop.

6.3.3 Reinforcement

The structural engineer should design footing reinforcement to support the intended structural loads without excessive settlement. Reinforce continuous footings with top and bottom steel to provide structural continuity and to permit spanning of local irregularities. At a minimum, continuous footings should be designed to structurally span a clear distance of 5 feet.

To help resist expansive soil movement, reinforce continuous footings with at least four No. 4 steel reinforcement bars, two top and two bottom.

6.3.4 Foundation Lateral Resistance

Lateral loads may be resisted by friction along the base and by passive pressure along the sides of foundations. The passive pressure is based on an equivalent fluid pressure in pounds per cubic foot (pcf). We recommend the following allowable values for design:

- Passive Lateral Pressure: 300 pcf
- Coefficient of Friction: 0.30

The above allowable values include a factor of safety of 1.5. Increase the above values by one-third for the short-term effects of wind or seismic loading.

Passive lateral pressure should not be used for footings on or above slopes.

6.3.5 Settlement

Provided our report recommendations are followed and given the proposed construction (Section 1.3), we estimate total and differential static foundation settlements to be less than approximately ¾ and ½ inch acting over a distance of 30 feet, respectively. The foundation system should be designed to accommodate the seismic settlement recommended in Section 6.1.1.

6.3.6 Interior Concrete Floor Slabs

To reduce the effects of expansive soil on interior slabs, in addition to the non-expansive pad cap, we recommend the following:

1. Provide a minimum concrete thickness of 5 inches.

2. Reinforce slabs with No. 4 rebar on 16-inch centers, each way, placed within the middle third of the slab.

The structural engineer should provide final design thickness and additional reinforcement, if necessary, for the intended structural loads.

6.3.7 Slab Moisture Vapor Reduction

When buildings are constructed with concrete slab-on-grade, water vapor from beneath the slab will migrate through the slab and into the building. This water vapor can be reduced but not

stopped. Vapor transmission can negatively affect floor coverings and lead to increased moisture within a building. When water vapor migrating through the slab would be undesirable, we recommend the following to reduce, but not stop, water vapor transmission upward through the slab-on-grade.

1. Construct a moisture retarder system directly beneath the slab on-grade that consists of the following:
   a. Vapor retarder membrane sealed at all seams and pipe penetrations and connected to all footings. Vapor retarders shall conform to Class A vapor retarder in accordance with ASTM E 1745, latest edition, "Standard Specification for Plastic Water Vapor Retarders used in Contact with Soil or Granular Fill under Concrete Slabs". The vapor retarder should be **underlain by**
   b. 4 inches of clean crushed rock. Crushed rock should have 100 percent passing the ¾-inch sieve and less than 5 percent passing the No. 4 Sieve.

2. Use a concrete water-cement ratio for slabs-on-grade of no more than 0.50.

3. Provide inspection and testing during concrete placement to check that the proper concrete and water cement ratio are used.

4. Moist cure slabs for a minimum of 3 days or use other equivalent curing specified by the structural engineer.

The structural engineer should be consulted as to the use of a layer of clean sand or pea gravel (less than 5 percent passing the U.S. Standard No. 200 Sieve) placed on top of the vapor retarder membrane to assist in concrete curing.

6.4 DRILLED PIERS

Other improvements such as overheard canopies and lights may be supported on drilled, cast-in-place, straight-shaft friction piers.

The piers should have a minimum diameter of 12 inches and extend to a depth of at least 8 feet below the existing ground surface. Design piers for an allowable downward skin friction of 500 pounds per square foot for combined dead-plus-live loads with a one-third increase allowed for either transient wind or seismic loading. For pier load capacity computations, exclude the upper 3 feet.

Piers should be spaced a minimum of three pier diameters, center-to-center. Where closer spacing is unavoidable, the piers should be designed with a reduced skin friction of 330 psf. Resistance to uplift loads is developed in friction along the pier shafts. We recommend that an allowable uplift frictional resistance of 330 pounds per square foot be used.

Lateral loads exerted on drilled piers and may be resisted by a passive resistance based on an equivalent fluid pressure of 300 pounds per cubic foot acting against the 1.5 times individual pier diameter. The passive earth pressure should start at a depth of 12 inches or where there is 8 feet horizontal distance to daylight in sloping areas.

The bottoms of pier excavations should be dry, reasonably clean, and free of loose soil before reinforcing steel is installed and concrete is placed. We recommend that the excavation of piers

be performed under our direct observation to establish that the piers are founded in suitable materials and constructed in accordance with the recommendations presented in this letter.

If caving is observed, each shaft may need to be cased. If groundwater is encountered, remove it from excavations prior to concrete placement. If groundwater cannot be removed from excavations prior to concrete placement, then we recommend that concrete be placed by tremie pipe. The concrete should be tremied to the bottom of the hole keeping the tremie pipe below the surface of the concrete to avoid entrapment of water in the concrete. As concrete is poured, water is displaced out of the hole.

In addition, the expansive soils may exert upward pressure on the base of grade beams. This force can be neglected if a 2-inch void form of degradable material is utilized at the base of the beams/panels. Under no circumstance should grade beams be cast upon dry, desiccated soil.

Pier holes should be drilled with straight shafts and special care during construction to not allow concrete to “mushroom” out at the top of the pier. If needed, a sonotube concrete form may be used. If the provided recommendations are incorporated into the construction practices, the uplift pressure on the drilled piers may be neglected.

The pier reinforcement should be designed by the Structural Engineer, but as a minimum, at least two No. 4 rebars should extend the full length of each pier. Where applicable, the pier reinforcement should be tied to the grade beam as recommended by the Structural Engineer.

While structural loads were not provided, we anticipate that total vertical settlement for the recommended pier foundation should not exceed approximately ½ inch.

6.5 CBC PARAMETERS

It is our understanding that structures will be designed under the upcoming 2019 California Building Code (CBC). Based on the subsurface conditions encountered in the borings, we characterized the site as Site Class D in accordance with the 2019 CBC. We provide the 2019 CBC seismic design parameters in Table 6.5-1 below, which include design spectral response acceleration parameters based on the mapped Risk-Targeted Maximum Considered Earthquake (MCE_R) spectral response acceleration parameters.

TABLE 6.5-1: 2019 CBC Seismic Design Parameters

PARAMETER	VALUE
Site Class	D
Mapped MCE_R Spectral Response Acceleration at Short Periods, S_S (g)	2.291
Mapped MCE_R Spectral Response Acceleration at 1-second Period, S_1 (g)	0.808
Site Coefficient, F_A	1.0
Site Coefficient, F_V	Null*
MCE_R Spectral Response Acceleration at Short Periods, S_{MS} (g)	2.291
MCE_R Spectral Response Acceleration at 1-second Period, S_{M1} (g)	Null*
Design Spectral Response Acceleration at Short Periods, S_{DS} (g)	1.527
Design Spectral Response Acceleration at 1-second Period, S_{D1} (g)	Null*
MCE_G Peak Ground Acceleration adjusted for Site Class effects, PGA_M (g)	1.11

*Requires site-specific ground motion hazard analysis per ASCE 7-16 Section 11.4.8

Considering the proposed single-level train depot building, we estimate the fundamental periods of the proposed structure to be less than $1.5T_s$ (where T_s is 0.60 seconds for this project). Therefore, the structural engineer may consider exception of Section 11.4.8 of ASCE 7-16 as follows:

> "A ground motion hazard analysis is not required for structures… where, structures on Site Class D sites with S_1 greater than or equal to 0.2, provided the value of the seismic response coefficient C_s is determined by Eq. (12.8-2) of ASCE 7-16 for values of $T \leq 1.5T_S$ and taken as equal to 1.5 times the value computed in accordance with either Eq. (12.8-3) of ASCE 7-16 for $1.5T_s < T \leq T_L$. or Eq. (12.8-4) of ASCE 7-16 for T> T_L.""

If the noted exception is not used, a ground motion hazard analysis should be performed and can be provided in a separate letter.

7.0 EXTERIOR FLATWORK

Exterior flatwork includes items such as concrete sidewalks, steps, and outdoor courtyards exposed to foot traffic only. Provide a minimum section of 4 inches of concrete over 4 inches of aggregate base. Thicken flatwork edges to at least 8 inches to help control moisture variations in the subgrade and place rebar within the middle third of the slab to help control the width and offset of cracks. Reinforcement consisting of No. 3 bars spaced 18 inches on-center each way can be placed to help reduce cracks. The turndown may be omitted if the thickness of the flatwork is increased to 6 inches. As is common with concrete construction, minor cracking should be expected. Construct control and construction joints in accordance with current Portland Cement Association Guidelines.

8.0 PAVEMENT DESIGN

8.1 FLEXIBLE PAVEMENTS

We obtained three near-surface samples for Resistance Value (R-Value) testing. The tests resulted in R-Values of 8, 7, and less than 5. The following pavement sections have been determined for Traffic Indices of 4.5 through 7, an assumed R-Value of 5, and in accordance to the design methods contained in chapter 630 of Caltrans Highway Design Manual.

We have also provided an alternative section based on the Caltrans Subgrade Enhancement Geosynthetic Design and Construction Guide (latest revision September 21, 2013). Based on this guideline, the subgrade enhancement should consist of a Class B1 Woven Geotextile. The geotextile should be placed between the subgrade and Class 2 aggregate base layer. The requirements of Class B1 Woven Geotextile are included in the following Table 8.1-1.

TABLE 8.1-1: Caltrans Class B1 Woven Geotextile Requirements

Elongation at break, % ASTM D 4632	Grab tensile strength (min), lb ASTM D 4632	Wide width tensile strength (min) at 5% strain, lb/ft ASTM D 4595	Wide width tensile strength (min) at ultimate strain, lb/ft ASTM D 4595	Tear strength (min), lb ASTM D 4533	Puncture strength (min), lb ASTM D 6241	Permittivity (min), Sec^{-1} ASTM D 4491	Apparent opening size (max), inch ASTM D 4751	Ultraviolet stability (retained strength after 500 hrs exposure) (min), % ASTM D 4355
<50	--	2,000	4,800	--	620	0.20	0.024	70

When using the Subgrade Enhancement Geotextile (SEG_T), the Caltrans Subgrade Enhancement Geosynthetic Design and Construction Guide allows the design R-value of the subgrade soil to be 20. With the SEG_T, the thickness of the hot mix asphalt remains the same but the thickness of Class 2 aggregate base is reduced.

TABLE 8.1-2: Pavement Sections

TRAFFIC INDEX (TI)	R-VALUE OF 5		
	HMA (INCHES)	AB (INCHES)	AB (INCHES) With SEG_T
4.5	2½	10	7
5.0	2¾	11	8
5.5	3¾	11	8
6.0	3¾	13	9
6.5	3¾	14	11
7.0	4	16	12

*Notes: HMA – Hot Mix Asphalt
AB – Caltrans Class 2 aggregate base (R-Value of 78 or greater)
Per City of Goleta General Street Specifications: when the traffic index is less than 5.5, the minimum thickness of HMA shall be 0.20' (~2½"). When the traffic index is 5.5 or greater, the minimum thickness of HMA shall be 0.30' (~3¾").

The Traffic Indices and minimum pavement section(s) should be confirmed by the Civil Engineer and the City of Goleta.

8.1.1 Pavement Construction

Pavement construction and all materials should conform to the specifications and requirements of the latest edition of the Standard Specifications by the Division of Highways, Department of Public Works, State of California, and City of Goleta requirements and the following minimum requirements.

- All pavement subgrades should be scarified to a depth of 12 inches below finished subgrade elevation. The subgrade soil should be moisture conditioned to at least 2 percentage points above optimum and compacted to at least 95 percent relative compaction in accordance with city requirements.

- Subgrade soil should be in a stable, non-pumping condition at the time aggregate base materials are placed and compacted.

- Adequate provisions must be made such that the subgrade soils and aggregate base materials are not allowed to become saturated.

- Aggregate base materials should meet current Caltrans specifications for Class 2 aggregate base and should be compacted to at least 95 percent of maximum dry density.

- Asphalt paving materials should meet current Caltrans specifications for asphalt concrete.

8.2 RIGID PAVEMENTS

Use concrete pavement sections to resist heavy loads and turning forces in areas such as fire lanes or trash enclosures. Final design of rigid pavement sections, and accompanying reinforcement, should be performed based on estimated traffic loads and frequencies. We recommend the following minimum design sections for rigid pavements using ACI 330R-08 Design Guide for Concrete Parking Lots:

TABLE 8.2-1: Rigid Pavement Sections

AVERAGE DAILY TRUCK TRAFFIC (ADTT*)	R-VALUE OF 5	
	CONCRETE (IN)	AB (IN)
10	6	6
25	6½	9
100	7½	9
300	7½	12
700	8	12

*Notes: ADTT – average daily truck traffic. Trucks are defined as vehicles with at least six wheels; excludes panel trucks, pickup trucks, and other four-wheel vehicles.
AB – Caltrans Class 2 aggregate base (R-Value of 78 or greater)

TABLE 8.2-2: Spacing Between Joints

PAVEMENT THICKNESS (IN)	MAXIMUM SPACING (FT)
4, 4½	10
5, 5½	12½
6 or greater	15

- Jointed Plane Concrete Pavement (JPCP) should have a minimum 28-day compressive strength (f'c) of 4,000 psi for a 20-year design life.
- Design assumes there is edge support provided by a curb or paving.

8.3 SUBGRADE AND AGGREGATE BASE COMPACTION

Compact finish subgrade and aggregate base in accordance with Section 5.6. Aggregate Base should meet the requirements for ¾-inch maximum Class 2 AB in accordance with Section 26 of the latest Caltrans Standard Specifications.

8.4 CUT-OFF CURBS

Saturated pavement subgrade or aggregate base can cause premature failure or increased maintenance of asphalt concrete pavements. This condition often occurs where landscape areas directly abut and drain toward pavements. If desired to install pavement cutoff barriers, they should be considered where pavement areas lie downslope of any landscape areas that are to be sprinklered or irrigated, and should extend to a depth of at least 4 inches below the aggregate base layer. Cutoff barriers may consist of deepened concrete curbs or deep-root moisture barriers.

If reduced pavement life and greater than normal pavement maintenance are acceptable to the owner, then the cutoff barrier may be eliminated.

9.0 LIMITATIONS AND UNIFORMITY OF CONDITIONS

This report presents geotechnical recommendations for design of the improvements discussed in Section 1.3 for the Goleta Train Depot project. If changes occur in the nature or design of the project, we should be allowed to review this report and provide additional recommendations, if any. It is the responsibility of the client to transmit the information and recommendations of this report to the appropriate organizations or people involved in design of the project, including but not limited to owners, architects, engineers, and designers. The conclusions and recommendations contained in this report are solely professional opinions and are valid for a period of no more than 2 years from the date of report issuance.

We strived to perform our professional services in accordance with generally accepted geotechnical engineering principles and practices currently employed in the area; no warranty is expressed or implied. There are risks of earth movement and property damages inherent in building on or with earth materials. We are unable to eliminate all risks; therefore, we are unable to guarantee or warrant the results of our services.

This report is based upon field and other conditions discovered at the time of report preparation. We developed this report with limited subsurface exploration data. We assumed that our subsurface exploration data are representative of the actual subsurface conditions across the site. Considering possible underground variability of soil and groundwater, additional costs may be required to complete the project. We recommend that the owner establish a contingency fund to cover such costs. If unexpected conditions are encountered, ENGEO must be notified immediately to review these conditions and provide additional and/or modified recommendations, as necessary.

Our services did not include excavation sloping or shoring, soil volume change factors, flood potential, or a geohazard exploration. In addition, our geotechnical exploration did not include work to determine the existence of possible hazardous materials. If any hazardous materials are encountered during construction, the proper regulatory officials must be notified immediately.

This document must not be subject to unauthorized reuse, that is, reusing without written authorization of ENGEO. Such authorization is essential because it requires ENGEO to evaluate the document's applicability given new circumstances, not the least of which is passage of time.

Actual field or other conditions will necessitate clarifications, adjustments, modifications or other changes to ENGEO's documents. Therefore, ENGEO must be engaged to prepare the necessary clarifications, adjustments, modifications or other changes before construction activities commence or further activity proceeds. If ENGEO's scope of services does not include onsite construction observation, or if other persons or entities are retained to provide such services, ENGEO cannot be held responsible for any or all claims arising from or resulting from the performance of such services by other persons or entities, and from any or all claims arising from or resulting from clarifications, adjustments, modifications, discrepancies or other changes necessary to reflect changed field or other conditions.

We determined the lines designating the interface between layers on the exploration logs using visual observations. The transition between the materials may be abrupt or gradual. The

exploration logs contain information concerning samples recovered, indications of the presence of various materials such as clay, sand, silt, rock, existing fill, etc., and observations of groundwater encountered. The field logs also contain our interpretation of the subsurface conditions between sample locations. Therefore, the logs contain both factual and interpretative information. Our recommendations are based on the contents of the final logs, which represent our interpretation of the field logs.

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FIGURES

FIGURE 1: Vicinity Map
FIGURE 2: Site Plan
FIGURE 3: Regional Geologic Map
FIGURE 4: Regional Faulting and Seismicity Map



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0 1,000 2,000

FEET

BASEMAP SOURCE: ESRI MAPPING SERVICE

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VICINITY MAP

GOLETA TRAIN STATION

GOLETA, CALIFORNIA

PROJECT NO. :	16370.000.000
SCALE:	AS SHOWN
DRAWN BY: QRL	CHECKED BY: RHB

FIGURE NO. 1

PATH: G:\DRAFTING\PROJECTS_16000 TO 17999\16370\16370000000\GEX\GOLETA TRAIN STATION.APRX
USER: QLIANG

ORIGINAL FIGURE PRINTED IN COLOR



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FEET

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

- PROJECT SITE
- 1-B5 — BORING (ENGEO, 2019)
- P4 — PERCOLATION TEST (ENGEO, 2019)
- HA-1 — HAND AUGER (ENGEO, 2019)

BASEMAP SOURCE: ESRI MAPPING SERVICE

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SITE PLAN

GOLETA TRAIN STATION

GOLETA, CALIFORNIA

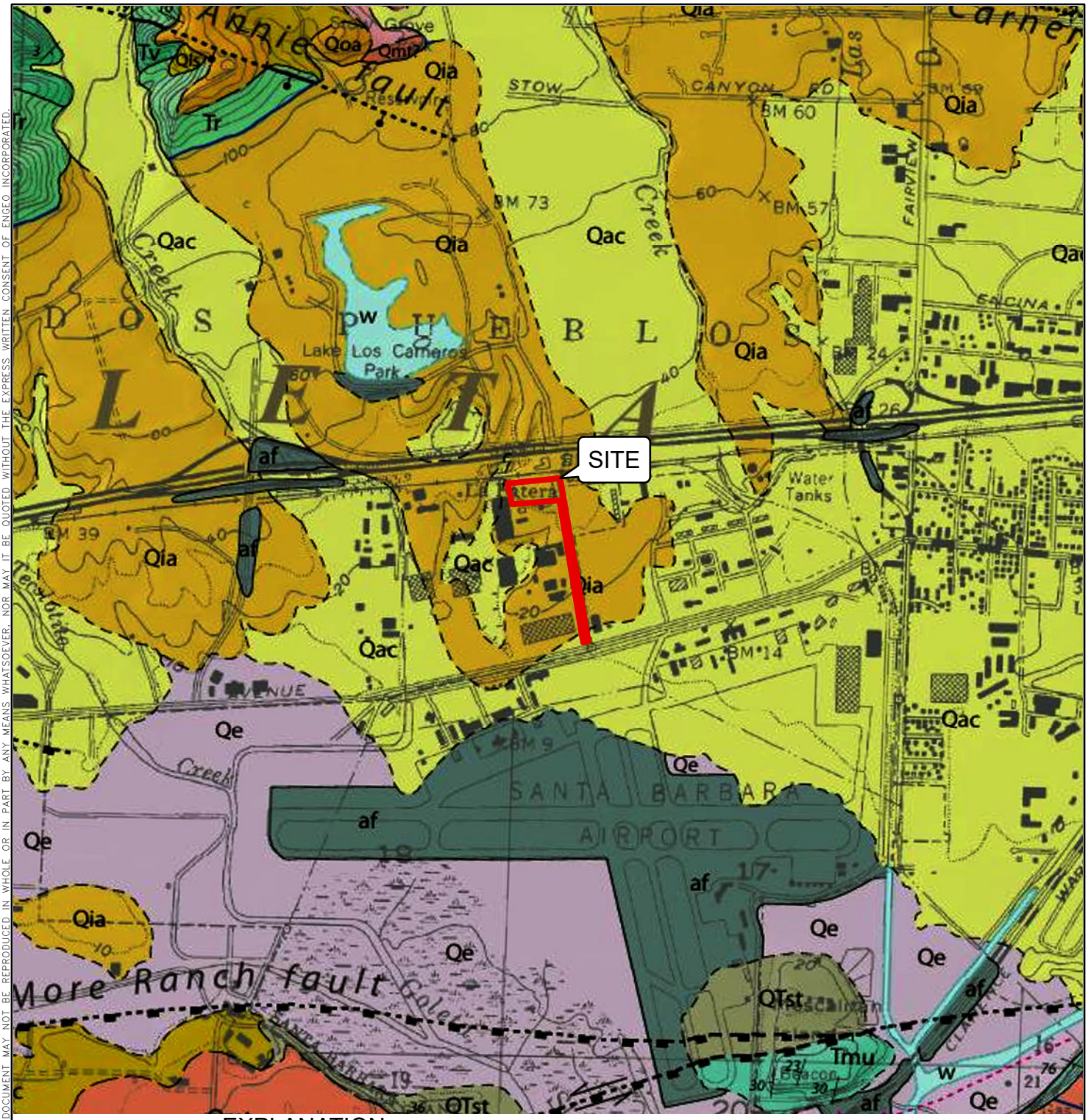
PROJECT NO. :	16370.000.000
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FIGURE NO. 2

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EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

af	ARTIFICIAL FILL
Qe	ESTUARINE DEPOSITS (HOLOCENE)
Qac	ALLUVIUM AND COLLUVIUM (HOLOCENE AND UPPER PLEISTOCENE)
Qls	LANDSLIDE DEPOSITS (HOLOCENE TO MIDDLE PLEISTOCENE)
Qia	INTERMEDIATE ALLUVIAL DEPOSITS (UPPER PLEISTOCENE)
Qmt	MARINE-TERRACE DEPOSITS (UPPER PLEISTOCENE)
Qtst	SILTSTONE UNIT (LOWER PLEISTOCENE AND UPPER PLIOCENE?)
Tmu	UPPER SILICEOUS UNIT (UPPER MIOCENE)
Tr	RINCON SHALE (LOWER MIOCENE)

N

0 750 1,500

FEET

BASEMAP SOURCE:
MINOR ET. AL. 2007

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REGIONAL GEOLOGIC MAP

GOLETA TRAIN STATION

GOLETA, CALIFORNIA

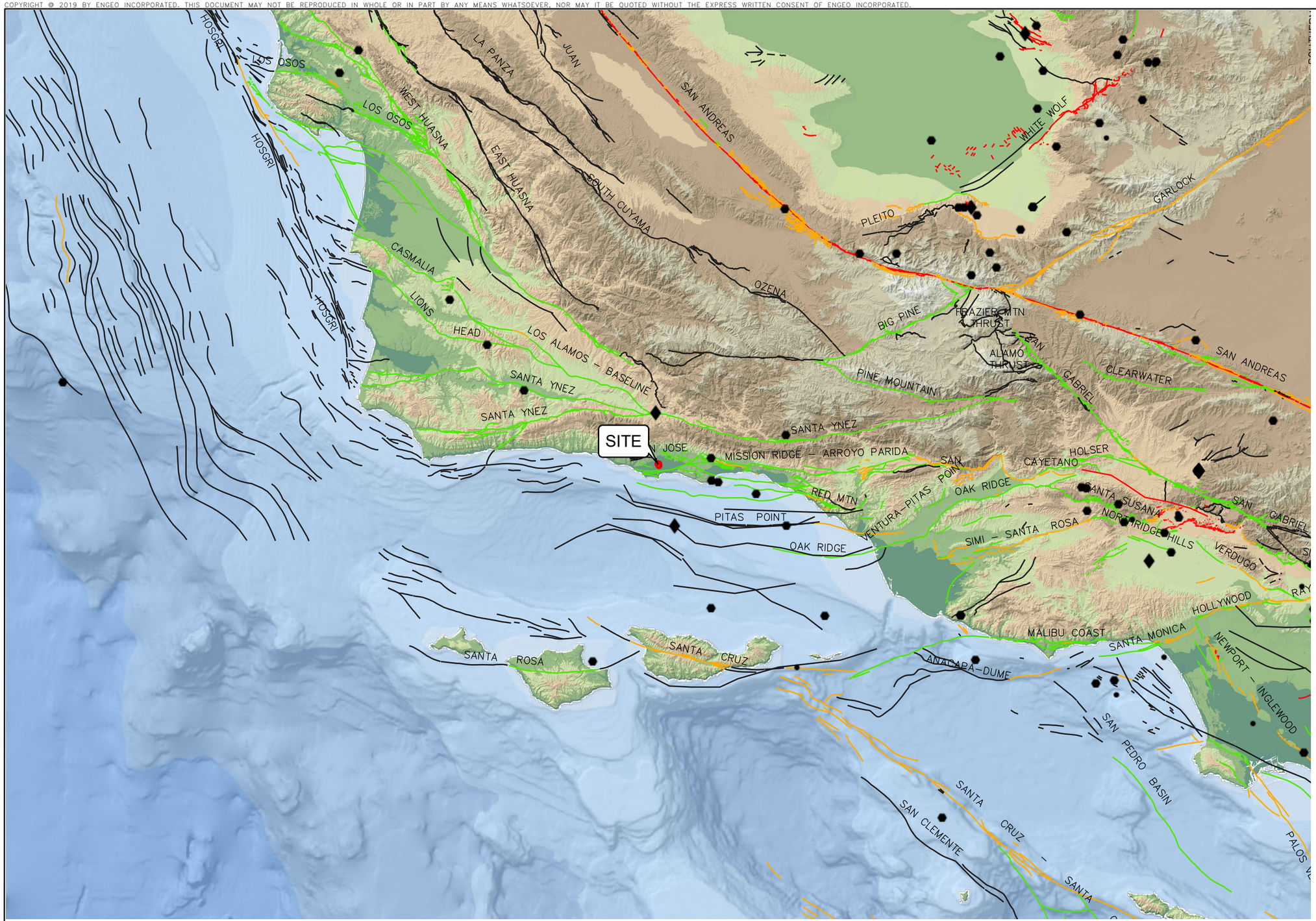
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FIGURE NO. 3

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N

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Miles

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

EARTHQUAKE

- MAGNITUDE 7+
- MAGNITUDE 6-7
- MAGNITUDE 5-6

USGS QUATERNARY FAULTS

- HISTORICAL
- LATEST QUATERNARY
- LATE QUATERNARY
- UNDIFFERENTIATED QUATERNARY

HISTORIC BLIND THRUST FAULT ZONE

BASE MAP SOURCE
ESRI, GARMIN, GEBCO, NOAA NGDC, AND OTHER CONTRIBUTORS
COLOR HILLSHADE IMAGE BASED ON THE NATIONAL ELEVATION DATA SET (NED) AT 30 METER RESOLUTION
U.S.G.S. QUATERNARY FAULT DATABASE, 2018
U.S.G.S. HISTORIC EARTHQUAKE DATABASE (1800-PRESENT)

ENGEO
Expect Excellence

REGIONAL FAULTING AND SEISMICITY

GOLETA TRAIN STATION
GOLETA, CALIFORNIA

PROJECT NO. :	16370.000.000
SCALE:	AS SHOWN
DRAWN BY: QRL	CHECKED BY: RHB

FIGURE NO. 4

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APPENDIX A

BORING LOG KEY
EXPLORATION LOGS

KEY TO BORING LOGS

MAJOR TYPES			DESCRIPTION
COARSE-GRAINED SOILS MORE THAN HALF OF MAT'L LARGER THAN #200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE	CLEAN GRAVELS WITH LESS THAN 5% FINES	GW - Well graded gravels or gravel-sand mixtures GP - Poorly graded gravels or gravel-sand mixtures
		GRAVELS WITH OVER 12 % FINES	GM - Silty gravels, gravel-sand and silt mixtures GC - Clayey gravels, gravel-sand and clay mixtures
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE	CLEAN SANDS WITH LESS THAN 5% FINES	SW - Well graded sands, or gravelly sand mixtures SP - Poorly graded sands or gravelly sand mixtures
		SANDS WITH OVER 12 % FINES	SM - Silty sand, sand-silt mixtures SC - Clayey sand, sand-clay mixtures
FINE-GRAINED SOILS MORE THAN HALF OF MAT'L SMALLER THAN #200 SIEVE	SILTS AND CLAYS LIQUID LIMIT 50 % OR LESS		ML - Inorganic silt with low to medium plasticity CL - Inorganic clay with low to medium plasticity OL - Low plasticity organic silts and clays
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50 %		MH - Elastic silt with high plasticity CH - Fat clay with high plasticity OH - Highly plastic organic silts and clays
	HIGHLY ORGANIC SOILS		PT - Peat and other highly organic soils

For fine-grained soils with 15 to 29% retained on the #200 sieve, the words "with sand" or "with gravel" (whichever is predominant) are added to the group name.

For fine-grained soil with >30% retained on the #200 sieve, the words "sandy" or "gravelly" (whichever is predominant) are added to the group name.

GRAIN SIZES

U.S. STANDARD SERIES SIEVE SIZE					CLEAR SQUARE SIEVE OPENINGS			
200	40	10	4	3/4 "	3"	12"		
SILTS AND CLAYS	SAND			GRAVEL			COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE			

RELATIVE DENSITY

SANDS AND GRAVELS	BLOWS/FOOT (S.P.T.)
VERY LOOSE	0-4
LOOSE	4-10
MEDIUM DENSE	10-30
DENSE	30-50
VERY DENSE	OVER 50

CONSISTENCY

SILTS AND CLAYS	STRENGTH*
VERY SOFT	0-1/4
SOFT	1/4-1/2
MEDIUM STIFF	1/2-1
STIFF	1-2
VERY STIFF	2-4
HARD	OVER 4

SAMPLER SYMBOLS

- Modified California (3" O.D.) sampler
- California (2.5" O.D.) sampler
- S.P.T. - Split spoon sampler
- Shelby Tube
- Dames and Moore Piston
- Continuous Core
- Bag Samples
- Grab Samples
- NR No Recovery

MOISTURE CONDITION

DRY	Dusty, dry to touch
MOIST	Damp but no visible water
WET	Visible freewater

LINE TYPES

- ———— Solid - Layer Break
- – – – – – Dashed - Gradational or approximate layer break

GROUND-WATER SYMBOLS

- Groundwater level during drilling
- Stabilized groundwater level

(S.P.T.) Number of blows of 140 lb. hammer falling 30" to drive a 2-inch O.D. (1-3/8 inch I.D.) sampler

* Unconfined compressive strength in tons/sq. ft., asterisk on log means determined by pocket penetrometer

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LOG OF BORING 1-B1

LATITUDE: 34.437575 LONGITUDE: -119.842536

Geotechnical Exploration
Goleta Train Depot
Goleta, California
16370.000.000

DATE DRILLED: 8/12/2019
HOLE DEPTH: 11.5 ft.
HOLE DIAMETER: 8.0 in.
SURF ELEV (WGS 84): 31 ft.

LOGGED / REVIEWED BY: R. Hildebrant / RHB
DRILLING CONTRACTOR: 2R Drilling
DRILLING METHOD: Hollow Stem Auger
HAMMER TYPE: 140 lb. Auto Trip

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			4" ASPHALT PAVEMENT												
	30		6" AGGREGATE BASE												
			SANDY LEAN CLAY TO CLAYEY SAND (CL-SC), dark reddish brown, stiff, moist, fine- to medium-grained sand, R-Value = 7			6	28	14	14	47				1.5*	PP
5	25		CLAYEY SAND (SC), dark reddish brown, dense, moist, fine- to medium-grained sand, ~20-25% fines			6									
10	20					34									
			Bottom of boring at approximately 11½ feet below the ground surface No groundwater encountered during drilling												

LOG - GEOTECHNICAL_SU+QU W/ ELEV GOLETA TRAIN STATION REV.GPJ ENGEO INC.GDT 9/19/19

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LOG OF BORING 1-B2

LATITUDE: 34.437549 LONGITUDE: -119.84273

Geotechnical Exploration
Goleta Train Depot
Goleta, California
16370.000.000

DATE DRILLED: 8/12/2019
HOLE DEPTH: 51.5 ft.
HOLE DIAMETER: 8.0 in.
SURF ELEV (WGS 84): 30 ft.

LOGGED / REVIEWED BY: R. Hildebrant / RHB
DRILLING CONTRACTOR: 2R Drilling
DRILLING METHOD: Hollow Stem Auger
HAMMER TYPE: 140 lb. Auto Trip

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			4" ASPHALT PAVEMENT												
			SANDY LEAN CLAY (CL), dark reddish brown, hard, moist, manganese nodules, fine- to medium-grained sand			40	37	16	21	62					
											13.9	120	5146	5.15	UC
5	25					31	22	14	8	63	16.4	115.7	3073	3.07	UC
						33								4.25*	PP
			CLAYEY SAND (SC), dark reddish brown, medium dense, moist												
10	20					47				39	15.6	111.1			
15	15					40									
			SILTY SAND (SM), brown, medium dense to dense, moist, fine- to medium-grained sand			23				14	6.3				
20	10		Yellowish brown			28 50/5"				13					
25	5														

LOG - GEOTECHNICAL_SU+QU W/ ELEV GOLETA TRAIN STATION REV.GPJ ENGEO INC.GDT 9/19/19

LOG OF BORING 1-B2

ENGEO Expect Excellence

LATITUDE: 34.437549 LONGITUDE: -119.84273

Geotechnical Exploration
Goleta Train Depot
Goleta, California
16370.000.000

DATE DRILLED: 8/12/2019
HOLE DEPTH: 51.5 ft.
HOLE DIAMETER: 8.0 in.
SURF ELEV (WGS 84): 30 ft.

LOGGED / REVIEWED BY: R. Hildebrant / RHB
DRILLING CONTRACTOR: 2R Drilling
DRILLING METHOD: Hollow Stem Auger
HAMMER TYPE: 140 lb. Auto Trip

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			medium- to coarse-grained sand			72				25	6.3				
30	0		light yellowish brown, fine- to medium-grained sand			50/5"									
35	-5					57				10	8.1				
40	-10		LEAN CLAY (CL), grayish green, hard, moist, marine shells, iron staining			16					25.5			3.25*	PP
45	-15					78								4.5*	PP
50	-20														

LOG - GEOTECHNICAL_SU+QU W/ ELEV GOLETA TRAIN STATION REV.GPJ ENGEO INC.GDT 9/19/19

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LOG OF BORING 1-B2

LATITUDE: 34.437549 LONGITUDE: -119.84273

Geotechnical Exploration
Goleta Train Depot
Goleta, California
16370.000.000

DATE DRILLED: 8/12/2019
HOLE DEPTH: 51.5 ft.
HOLE DIAMETER: 8.0 in.
SURF ELEV (WGS 84): 30 ft.

LOGGED / REVIEWED BY: R. Hildebrant / RHB
DRILLING CONTRACTOR: 2R Drilling
DRILLING METHOD: Hollow Stem Auger
HAMMER TYPE: 140 lb. Auto Trip

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
						83								4.5*	PP
			Bottom of boring at approximately at 51½ ft below the ground surface No groundwater encountered during drilling												

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LOG OF BORING 1-B3

LATITUDE: 34.437536 LONGITUDE: -119.843453

Geotechnical Exploration
Goleta Train Depot
Goleta, California
16370.000.000

DATE DRILLED: 8/13/2019
HOLE DEPTH: 38.5 ft.
HOLE DIAMETER: 8.0 in.
SURF ELEV (WGS 84): 34 ft.

LOGGED / REVIEWED BY: R. Hildebrant / RHB
DRILLING CONTRACTOR: 2R Drilling
DRILLING METHOD: Hollow Stem Auger
HAMMER TYPE: 140 lb. Auto Trip

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			4" CONCRETE												
			LEAN CLAY (CL), dark reddish brown, hard, moist, [FILL]												
							22	14	8	58					
						22	50	19	31	80	19.8	107.8	3838	3.84	UC
	30					18									
5														3.5*	PP
			SANDY LEAN CLAY (CL), dark reddish brown, very stiff to hard, moist, manganese nodules, fine- to medium-grained sand												
						36	35	16	19	78	16.9	116.4	5069	5.07	UC
	25														
10														3.5*	PP
						44				63					
			stiff, fine- to coarse-grained sand												
	20														
15			fine-grained sand												
						13				81	21				
	15														
20															
						22				68	18.2				
	10														
25															

LOG - GEOTECHNICAL_SU+QU W/ ELEV GOLETA TRAIN STATION REV.GPJ ENGEO INC.GDT 9/19/19

LOG OF BORING 1-B3

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LATITUDE: 34.437536 LONGITUDE: -119.843453

Geotechnical Exploration
Goleta Train Depot
Goleta, California
16370.000.000

DATE DRILLED: 8/13/2019
HOLE DEPTH: 38.5 ft.
HOLE DIAMETER: 8.0 in.
SURF ELEV (WGS 84): 34 ft.

LOGGED / REVIEWED BY: R. Hildebrant / RHB
DRILLING CONTRACTOR: 2R Drilling
DRILLING METHOD: Hollow Stem Auger
HAMMER TYPE: 140 lb. Auto Trip

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			SILTY SAND (SM), brown to pale olive, medium dense, moist, fine- to medium-grained sand			30				28	10				
	5														
30			wet sample			24				26	25				
			SILT (ML), pale olive, very stiff, moist			14	27	NP	NP	74	26.9			2.25*	PP
	0														
35			LEAN CLAY (CL), grayish green, very stiff to hard, moist, marine shells			12	38	22	16		27			2.5*	PP
						27 50/5"								4.5*	PP
			Bottom of boring at approximately 38½ feet below ground surface Groundwater encountered at 30 feet during drilling, no groundwater measured at the end of drilling												

LOG - GEOTECHNICAL_SU+QU W/ ELEV GOLETA TRAIN STATION REV.GPJ ENGEO INC.GDT 9/19/19

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LOG OF BORING 1-B4

LATITUDE: 34.437154 LONGITUDE: -119.843038

Geotechnical Exploration
Goleta Train Depot
Goleta, California
16370.000.000

DATE DRILLED: 8/12/2019
HOLE DEPTH: 31.5 ft.
HOLE DIAMETER: 8.0 in.
SURF ELEV (WGS 84): 32 ft.

LOGGED / REVIEWED BY: R. Hildebrant / RHB
DRILLING CONTRACTOR: 2R Drilling
DRILLING METHOD: Hollow Stem Auger
HAMMER TYPE: 140 lb. Auto Trip

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			5" ASPHALT PAVEMENT												
	30		SANDY SILT (ML), dark reddish brown, hard to very stiff, moist, manganese nodules, fine- to coarse-grained sand, R-Value = <5												
			SANDY LEAN CLAY (ML), dark reddish brown, hard to very stiff, moist, manganese nodules, fine- to coarse-grained sand			24	18	16	2	56	14.2	119.6	1215	1.22	UC
5						15								4.5*	PP
	25		fine-to medium-grained sand			35	34	16	18		15.1	116.6	4190	4.19	UC
10			LEAN CLAY (CL), dark reddish brown, very stiff, moist			14								3.25*	PP
	20														
15						19					19.9	109		3.25*	PP
	15		CLAYEY SAND (SC), brown, medium dense, moist, ~30% fines												
			SILTY SAND (SM), brown, medium dense, moist, fine- to medium-grained sand			17				33	14.8				
20	10														
			POORLY GRADED SAND TO SILTY SAND (SP-SM), brown, dense, moist, fine- to medium-grained sand												
25															

LOG - GEOTECHNICAL_SU+QU W/ ELEV GOLETA TRAIN STATION REV.GPJ ENGEO INC.GDT 9/19/19

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LOG OF BORING 1-B4

LATITUDE: 34.437154 LONGITUDE: -119.843038

Geotechnical Exploration
Goleta Train Depot
Goleta, California
16370.000.000

DATE DRILLED: 8/12/2019
HOLE DEPTH: 31.5 ft.
HOLE DIAMETER: 8.0 in.
SURF ELEV (WGS 84): 32 ft.

LOGGED / REVIEWED BY: R. Hildebrant / RHB
DRILLING CONTRACTOR: 2R Drilling
DRILLING METHOD: Hollow Stem Auger
HAMMER TYPE: 140 lb. Auto Trip

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			POORLY GRADED SAND TO SILTY SAND (SP-SM), brown, dense, moist, fine- to medium-grained sand			34				9					
5															
30						44				6					
			Bottom of boring at approximately 31½ feet below the ground surface No groundwater encountered during drilling												

LOG - GEOTECHNICAL_SU+QU W/ ELEV GOLETA TRAIN STATION REV.GPJ ENGEO INC.GDT 9/19/19

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LOG OF BORING 1-B5

LATITUDE: 34.433692 LONGITUDE: -119.84146

Geotechnical Exploration
Goleta Train Depot
Goleta, California
16370.000.000

DATE DRILLED: 8/12/2019
HOLE DEPTH: 21.5 ft.
HOLE DIAMETER: 8.0 in.
SURF ELEV (WGS 84): 11 ft.

LOGGED / REVIEWED BY: R. Hildebrant / RHB
DRILLING CONTRACTOR: 2R Drilling
DRILLING METHOD: Hollow Stem Auger
HAMMER TYPE: 140 lb. Auto Trip

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			3" ASPHALT PAVEMENT												
	10		SANDY LEAN CLAY (CL), dark reddish brown, hard, moist, R-Value = 8				30	14	16	49					
						9								>4.5*	PP
5			more clayey												
	5					26								>4.5*	PP
			more sandy, manganese nodules												
						13								4.5*	PP
10															
	0					17								4.5*	PP
			SILTY SAND (SM), pale yellow, dense, moist, fine- to medium-grained sand, ~15% fines												
15															
	-5					49									
			CLAYEY SAND (SC), brown, medium dense, wet, fine- to coarse-grained sand, ~20-25% fines												
20					▽										
	-10					36									
			Bottom of boring at approximately 21½ feet below the ground surface Groundwater measured at 20 feet at the end of drilling												

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LOG OF BORING HA-1

LATITUDE: 34.433018 LONGITUDE: -119.841326

Geotechnical Exploration
Goleta Train Depot
Goleta, California
16370.000.000

DATE DRILLED: 7/17/2019
HOLE DEPTH: 13.5 ft.
HOLE DIAMETER: 4.0 in.
SURF ELEV (WGS 84): 9 ft.

LOGGED / REVIEWED BY: R. Hildebrant / RHB
DRILLING CONTRACTOR: N/A
DRILLING METHOD: Hand Auger
HAMMER TYPE: N/A

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			CLAYEY SAND TO SANDY CLAY (SC-CL), dark brown, fine- to medium-grained sand, fine- to medium gravel, ~40% fines [FILL]												
5	5		LEAN CLAY WITH SAND (CL), reddish brown, moist, medium plasticity, fine- to medium-grained sand												
	0		CLAYEY SAND (SC), dark red, moist, fine- to medium-grained sand, ~20% fines												
10			LEAN CLAY (CL), dark red, moist, medium plasticity												
			CLAYEY SAND (SC), dark red, moist, fine- to medium-grained sand												
			SANDY CLAY (CL), dark red, moist, fine- to medium-grained sand												
			Bottom of boring at approximately 13½ feet below the ground surface No groundwater encountered during drilling												

LOG - GEOTECHNICAL_SU+QU W/ ELEV GOLETA TRAIN STATION REV.GPJ ENGEO INC.GDT 9/19/19

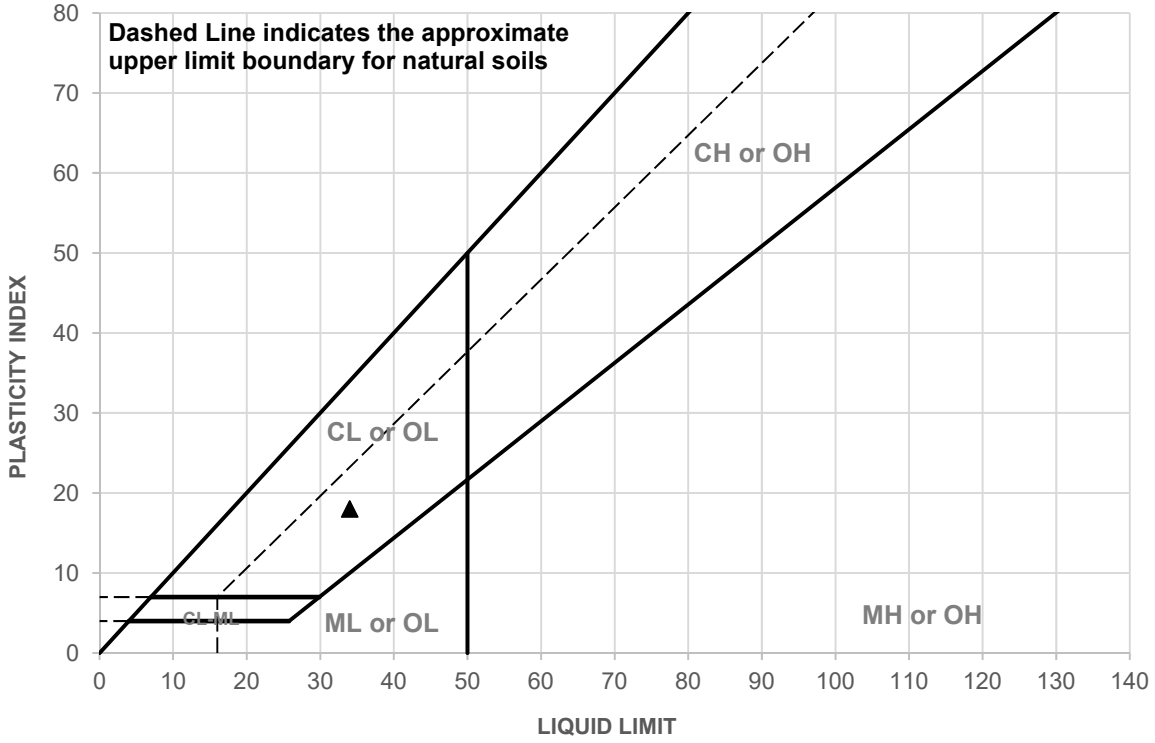


APPENDIX B

LABORATORY TEST DATA

Liquid and Plastic Limits Test Report
Unconfined Compression Test
Particle Size Distribution Report
R-Value Test Report
Analytical Results of Soil Corrosion (2 pages)

LIQUID AND PLASTIC LIMITS TEST REPORT
ASTM D4318



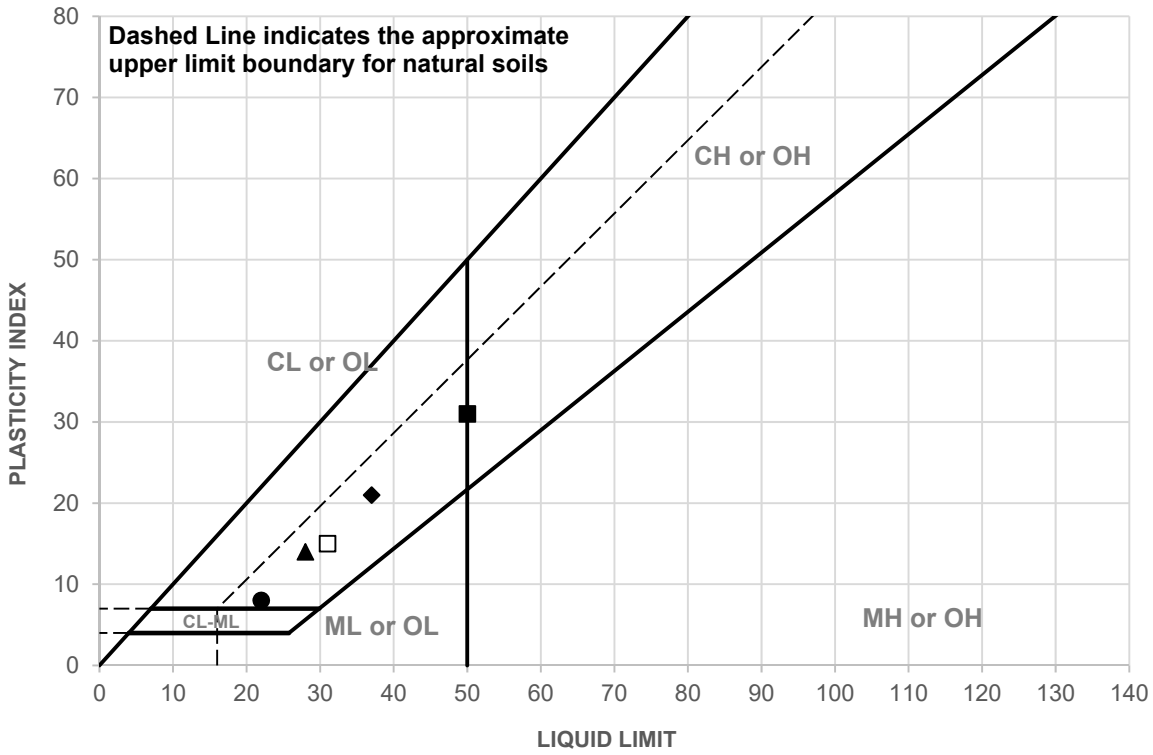
	SAMPLE ID	DEPTH	MATERIAL DESCRIPTION	LL	PL	PI
▲	1-B4@8.0 ft	8.0 feet	See exploration logs	34	16	18

	SAMPLE ID	TEST METHOD	REMARKS
▲	1-B4@8.0 ft	PI: ASTM D4318, Wet Method	

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CLIENT: Anil Verma Associates, Inc.
PROJECT NAME: City of Goleta Design for Train Station
PROJECT NO: 16370.000.000
PROJECT LOCATION: Goleta, California
REPORT DATE: 9/19/2019
TESTED BY: G. Criste
REVIEWED BY: D. Seibold

LIQUID AND PLASTIC LIMITS TEST REPORT
ASTM D4318



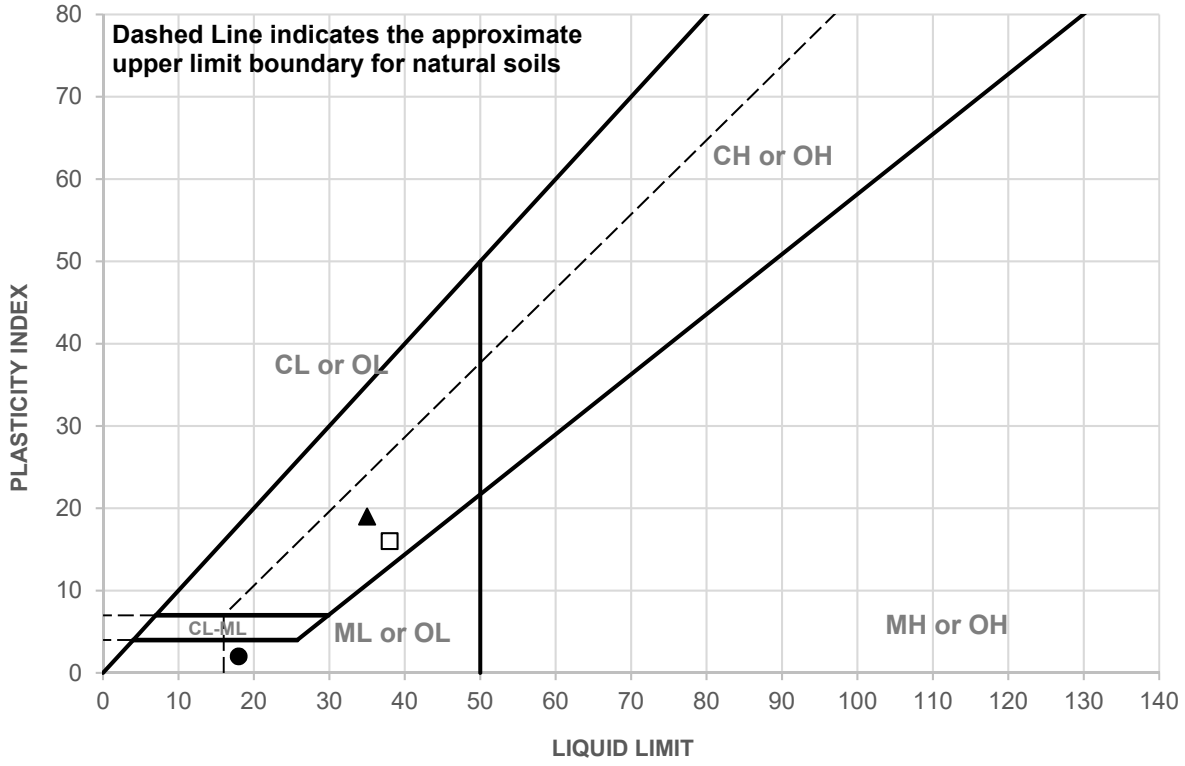
	SAMPLE ID	DEPTH	MATERIAL DESCRIPTION	LL	PL	PI
▲	1-B1 (Bulk)		See exploration logs	28	14	14
◆	1-B2	1-3 feet	See exploration logs	37	16	21
□	1-B2	6 feet	See exploration logs	31	16	15
●	1-B3	1-3 feet	See exploration logs	22	14	8
■	1-B3	3.5 feet	See exploration logs	50	19	31

	SAMPLE ID	TEST METHOD	REMARKS
▲	1-B1 (Bulk)	PI: ASTM D4318, Wet Method	
◆	1-B2	PI: ASTM D4318, Wet Method	
□	1-B2	PI: ASTM D4318, Wet Method	
●	1-B3	PI: ASTM D4318, Wet Method	
■	1-B3	PI: ASTM D4318, Wet Method	

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CLIENT: Anil Verma Associates, Inc.
PROJECT NAME: City of Goleta Design for Train Station
PROJECT NO: 16370.000.000
PROJECT LOCATION: Goleta, CA
REPORT DATE: 8/29/2019
TESTED BY: L. Santo Domingo
REVIEWED BY: G. Criste

LIQUID AND PLASTIC LIMITS TEST REPORT
ASTM D4318



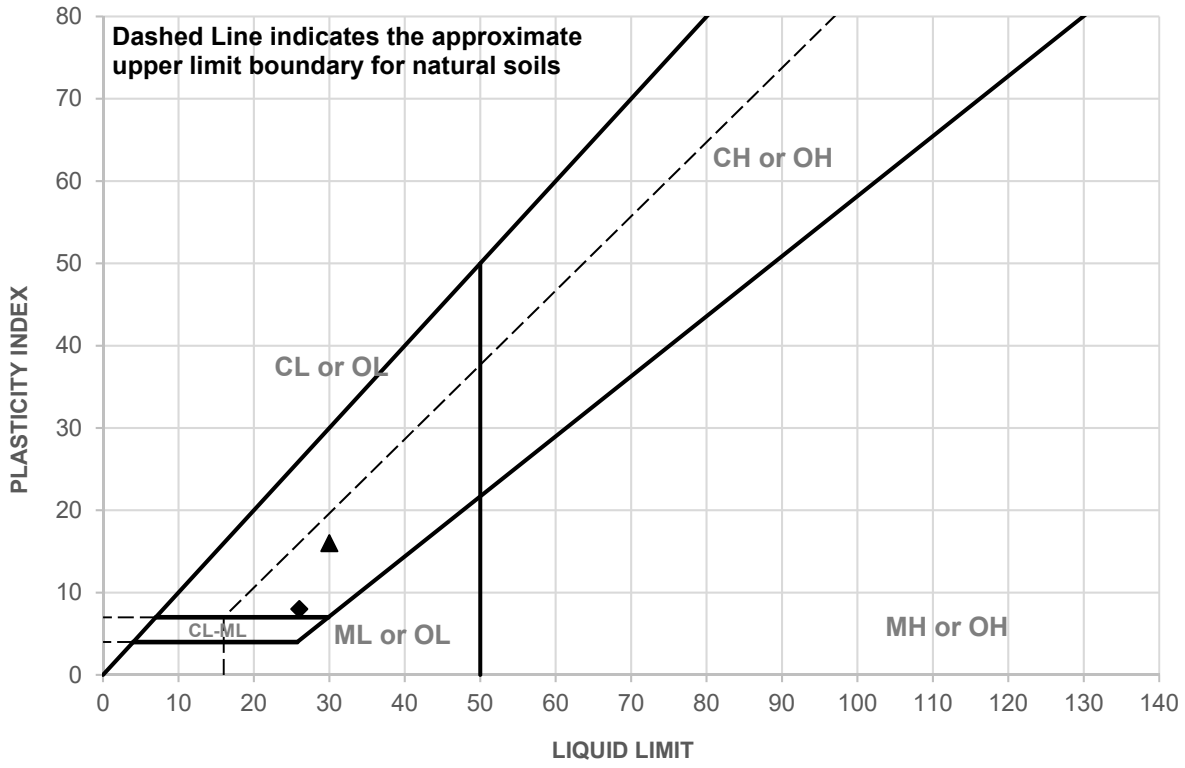
	SAMPLE ID	DEPTH	MATERIAL DESCRIPTION	LL	PL	PI
▲	1-B3	8.5 feet	See exploration logs	35	16	19
◆	1-B3	32.5 feet	See exploration logs	27	NP	NP
□	1-B3	35 feet	See exploration logs	38	22	16
●	1-B4	3.5 feet	See exploration logs	18	16	2

	SAMPLE ID	TEST METHOD	REMARKS
▲	1-B3	PI: ASTM D4318, Wet Method	
◆	1-B3	PI: ASTM D4318, Wet Method	Could not roll to required 3.2 mm thickness
□	1-B3	PI: ASTM D4318, Wet Method	
●	1-B4	PI: ASTM D4318, Wet Method	

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CLIENT: Anil Verma Associates, Inc.
PROJECT NAME: City of Goleta Design for Train Station
PROJECT NO: 16370.000.000
PROJECT LOCATION: Goleta, CA
REPORT DATE: 8/29/2019
TESTED BY: L. Santo Domingo
REVIEWED BY: G. Criste

LIQUID AND PLASTIC LIMITS TEST REPORT
ASTM D4318



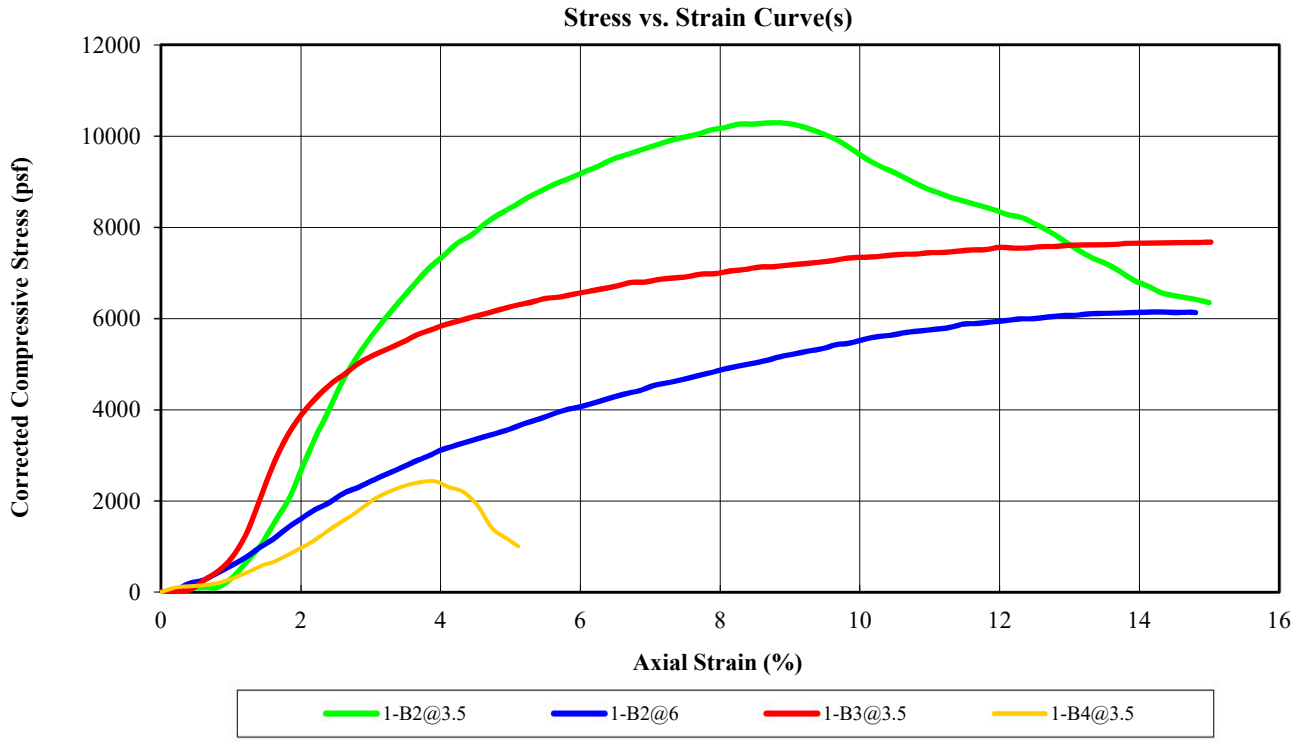
	SAMPLE ID	DEPTH	MATERIAL DESCRIPTION	LL	PL	PI
▲	1-B5 (Bulk)		See exploration logs	30	14	16
◆	P2	1-3 feet	See exploration logs	26	18	8

	SAMPLE ID	TEST METHOD	REMARKS
▲	1-B5 (Bulk)	PI: ASTM D4318, Wet Method	
◆	P2	PI: ASTM D4318, Wet Method	

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CLIENT: Anil Verma Associates, Inc.
PROJECT NAME: City of Goleta Design for Train Station
PROJECT NO: 16370.000.000
PROJECT LOCATION: Goleta, CA
REPORT DATE: 8/29/2019
TESTED BY: L. Santo Domingo
REVIEWED BY: G. Criste

UNCONFINED COMPRESSION TEST REPORT
(ASTM D2166)



	SPECIMEN			
BEFORE TEST	**1-B2@3.5**	**1-B2@6**	**1-B3@3.5**	**1-B4@3.5**
Moisture Content (%)	13.9	16.4	19.8	14.2
Dry Density (pcf)	120.0	115.7	107.8	119.6
Saturation (%)	97.2	100.0	98.3	98.0
Void Ratio	0.38	0.43	0.54	0.38
Diameter (in)	2.410	2.390	2.420	2.420
Height (in)	5.09	5.10	5.05	4.99
Height-To-Diameter Ratio	2.11	2.13	2.09	2.06
TEST DATA				
Unconfined Compressive Strength (psf)	10291	6146	7676	2430
Undrained Shear Strength (psf)	5146	3073	3838	1215
Strain Rate (in./min.)	0.05	0.05	0.05	0.05
Specific Gravity (Assumed)	2.650	2.650	2.650	2.650
Strain at Failure (%)	8.88	14.29	15.02	3.92
Liquid Limit				
Plastic Limit				
Test Remarks				

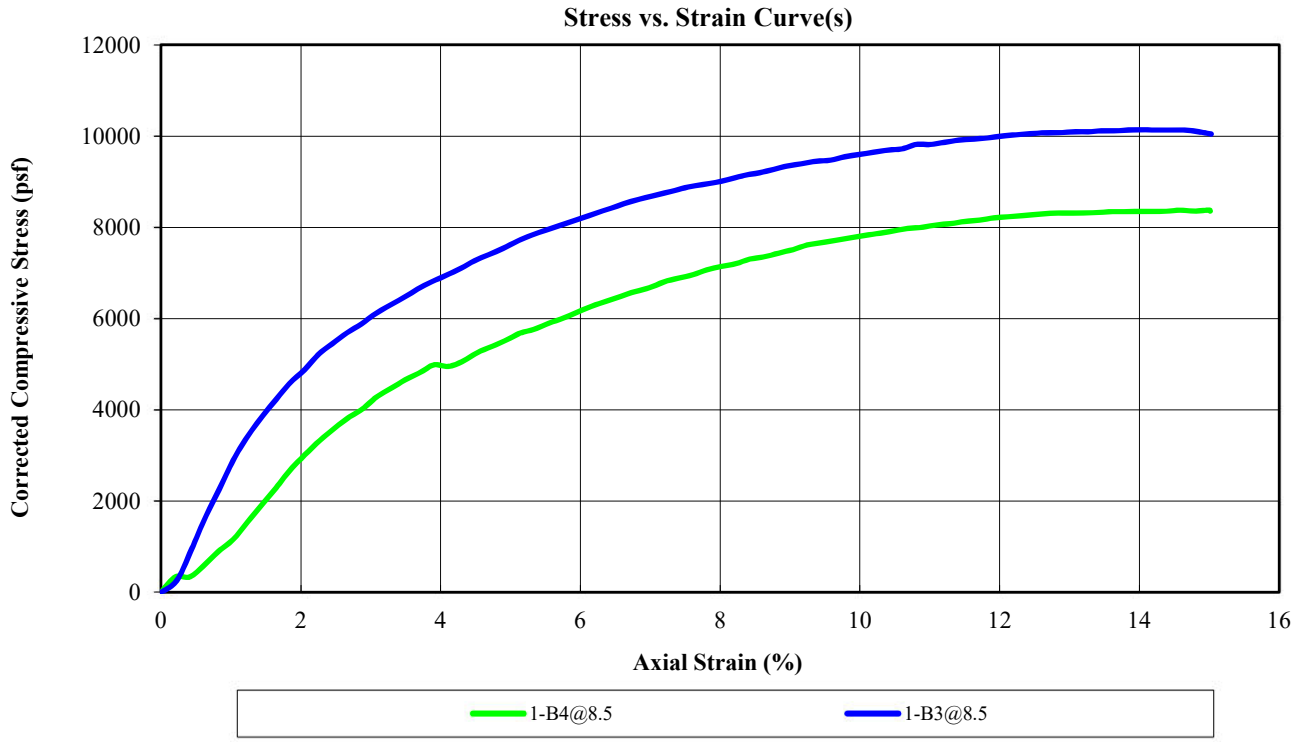
SPECIMEN	**DESCRIPTION**
1-B2@3.5	See exploration logs
1-B2@6	See exploration logs
1-B3@3.5	See exploration logs
1-B4@3.5	See exploration logs

PROJECT NAME: City of Goleta Design for Train Station
PROJECT NO: 16370.000.000
CLIENT: Anil Verma Associates, Inc.
LOCATION: Goleta, CA
PHASE NO: RIEM

Test Date: 08/28/19
Tested By: M. Quasem
Reviewed By: G. Criste

ENGEO
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UNCONFINED COMPRESSION TEST REPORT
(ASTM D2166)



	SPECIMEN	
BEFORE TEST	**1-B4@8.5**	**1-B3@8.5**
Moisture Content (%)	15.1	16.9
Dry Density (pcf)	116.6	116.4
Saturation (%)	95.6	97.6
Void Ratio	0.42	0.46
Diameter (in)	2.420	2.396
Height (in)	5.00	5.04
Height-To-Diameter Ratio	2.07	2.10
TEST DATA		
Unconfined Compressive Strength (psf)	8380	10138
Undrained Shear Strength (psf)	4190	5069
Strain Rate (in./min.)	0.05	0.05
Specific Gravity (Assumed)	2.650	2.650
Strain at Failure (%)	15.00	13.86
Liquid Limit		
Plastic Limit		
Test Remarks		

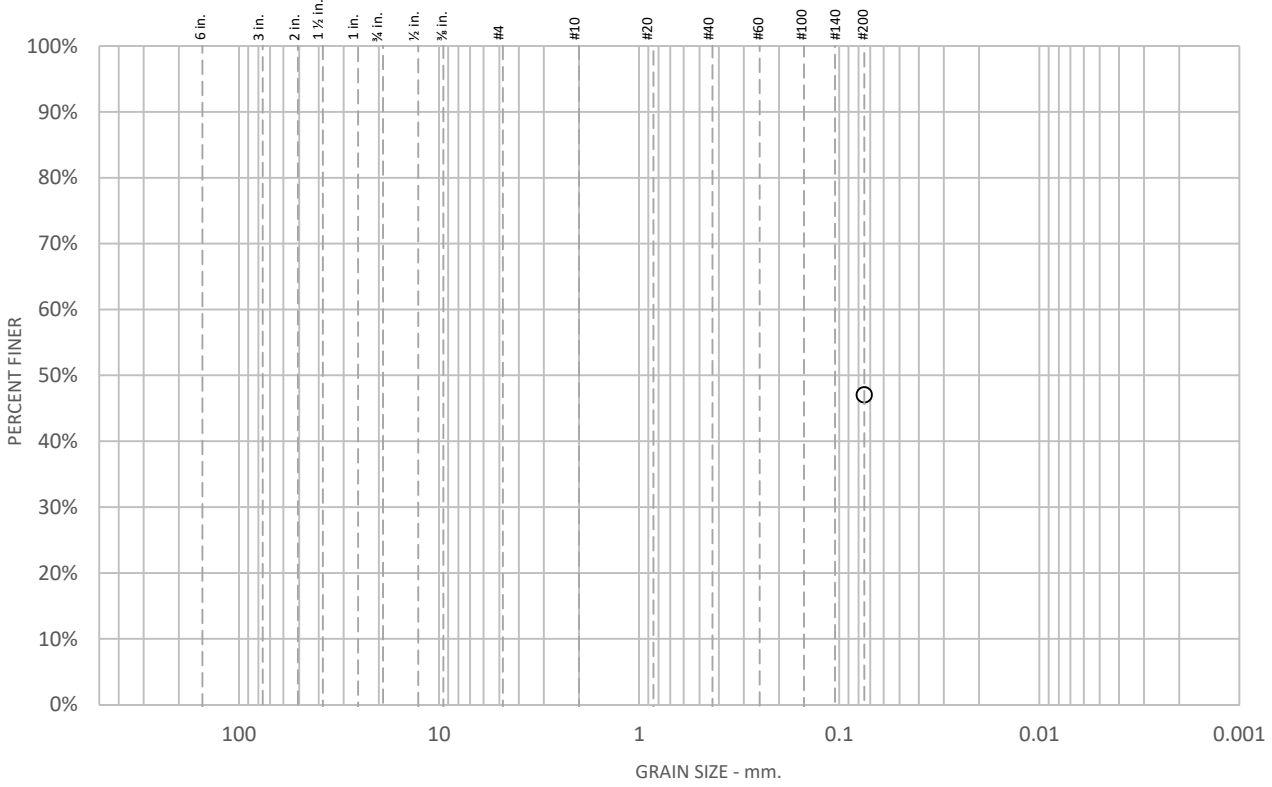
SPECIMEN	DESCRIPTION
1-B4@8.5	See exploration logs
1-B3@8.5	See exploration logs

PROJECT NAME: City of Goleta Design for Train Station
PROJECT NO: 16370.000.000
CLIENT: Anil Verma Associates, Inc.
LOCATION: Goleta, CA
PHASE NO: RIEM

Test Date: 08/28/19
Tested By: M. Quasem
Reviewed By: G. Criste

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Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
						47.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	47.0		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = 14 LL = 28 PI = 14

Coefficients

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

Classification

USCS =

Remarks

PI: ASTM D4318, Wet Method
ASTM D1140, Method B
Soak time = 180 min
Dry sample weight = 142.82 g

Sample Number: 1-B1 (Bulk)

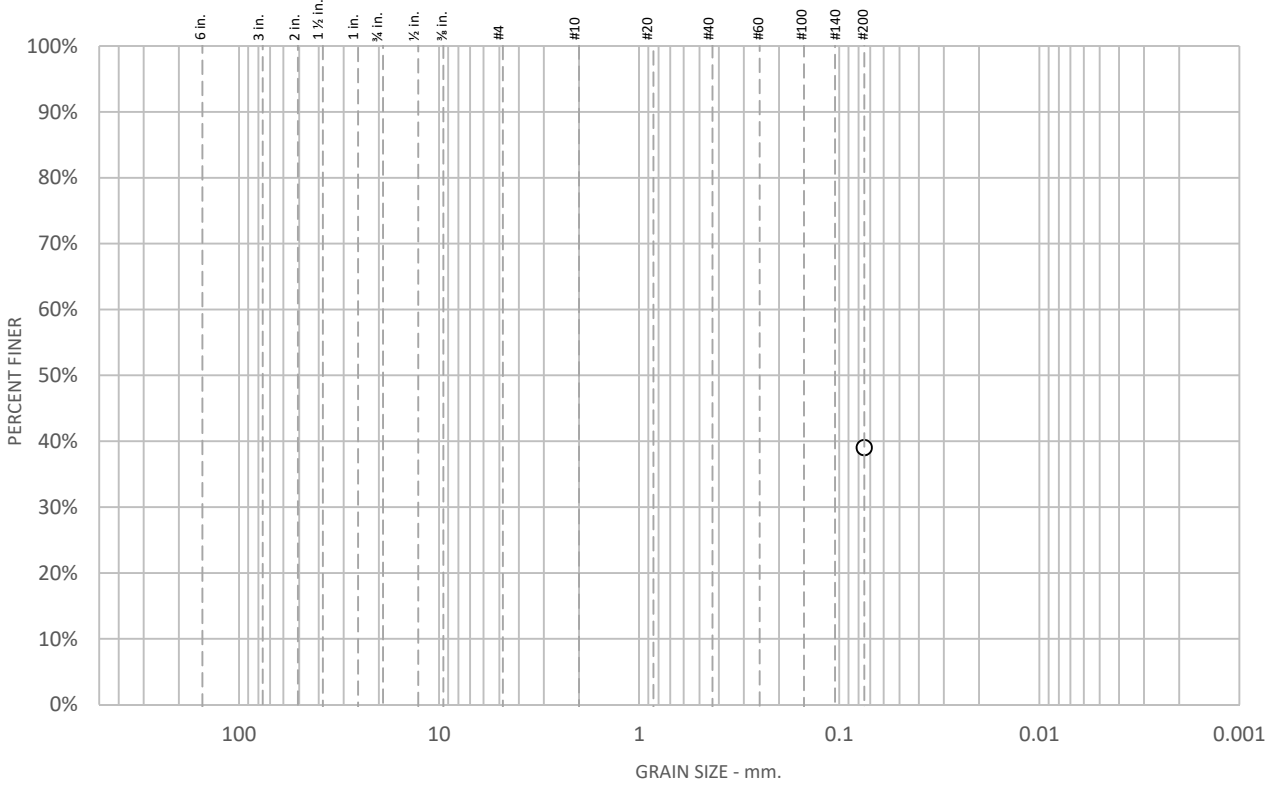
Client: Anil Verma Associates, Inc. **Project Number:** 16370.000.000
Project: City of Goleta Design for Trian Station **Date:** 8/30/2019
Project location: Goleta, CA

ENGEO Expect Excellence

Tested By: L. Santo Domingo **Checked By:** M. Quasem

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
						39.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	39.0		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = LL = PI =

Coefficients

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

Classification

USCS =

Remarks

ASTM D1140, Method B
Soak time = 180 min
Dry sample weight = 44.85 g

Sample Number: 1-B2 @ 10.5

Client: Anil Verma Associates, Inc.
Project: City of Goleta Design for Trian Station
Project location: Goleta, CA

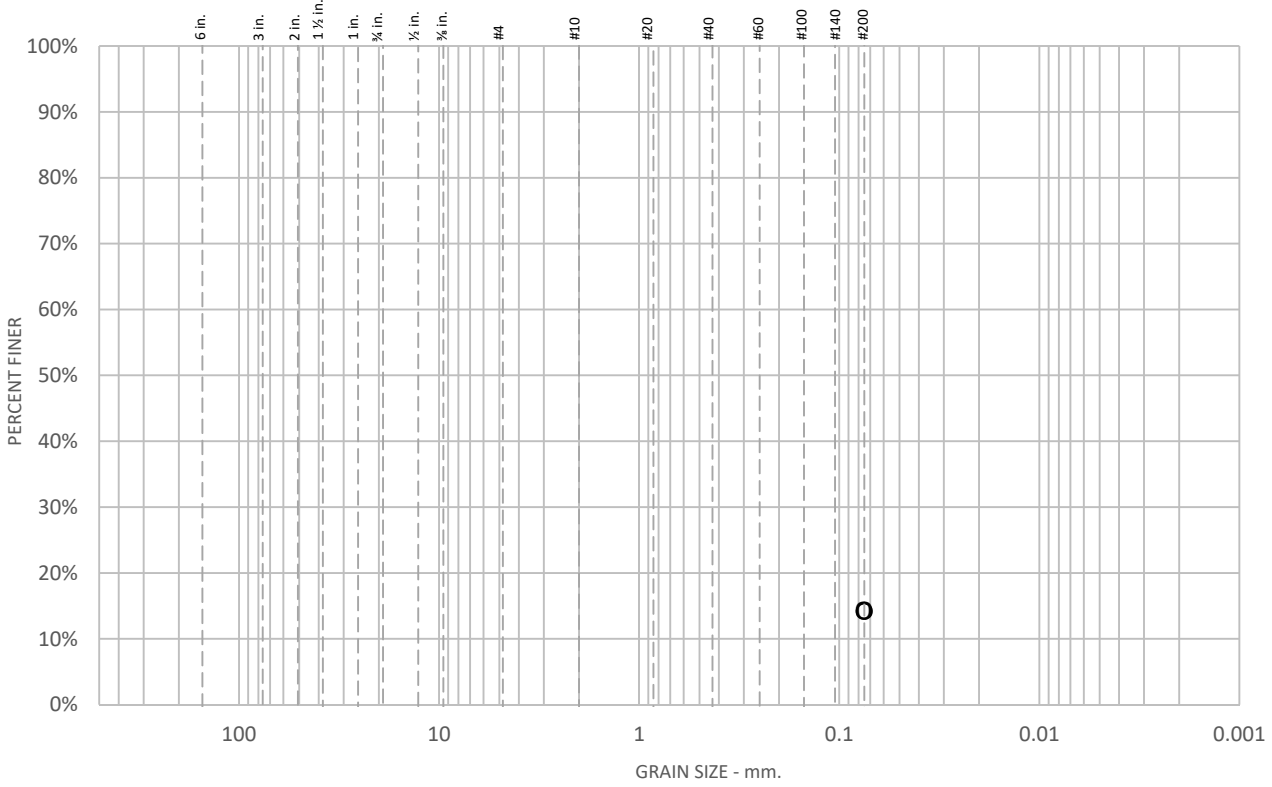
Project Number: 16370.000.000
Date: 8/30/2019

ENGEO Expect Excellence

Tested By: L. Santo Domingo
Checked By: M. Quasem

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
						14.2	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	14.2		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = LL = PI =

Coefficients

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

Classification

USCS =

Remarks

ASTM D1140, Method B
Soak time = 180 min
Dry sample weight = 118.52 g

Sample Number: 1-B2 @ 16.5

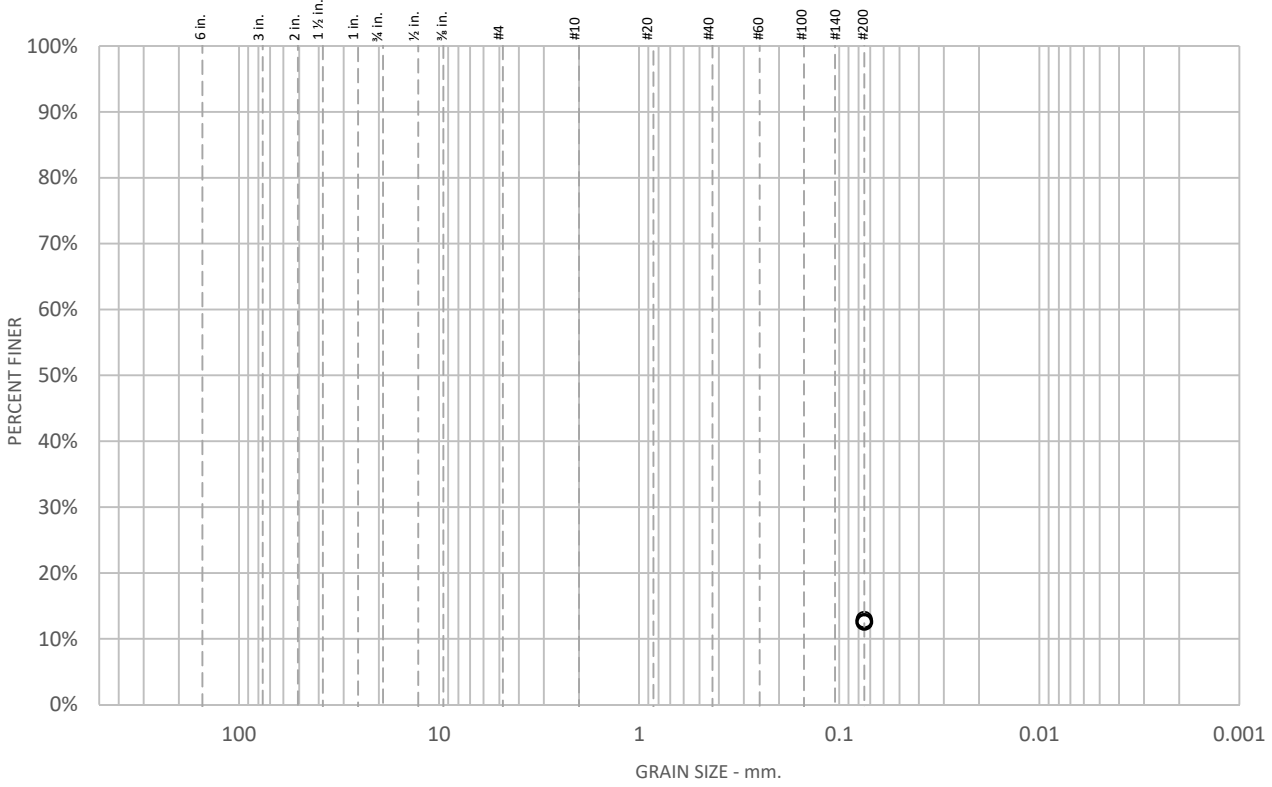
Client: Anil Verma Associates, Inc. **Project Number:** 16370.000.000
Project: City of Goleta Design for Trian Station **Date:** 8/30/2019
Project location: Goleta, CA

ENGEO Expect Excellence

Tested By: L. Santo Domingo **Checked By:** M. Quasem

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
						12.9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	12.9		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = LL = PI =

Coefficients

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

Classification

USCS =

Remarks

ASTM D1140, Method B
Soak time = 180 min
Dry sample weight = 107.75 g

Sample Number: 1-B2 @ 20.5

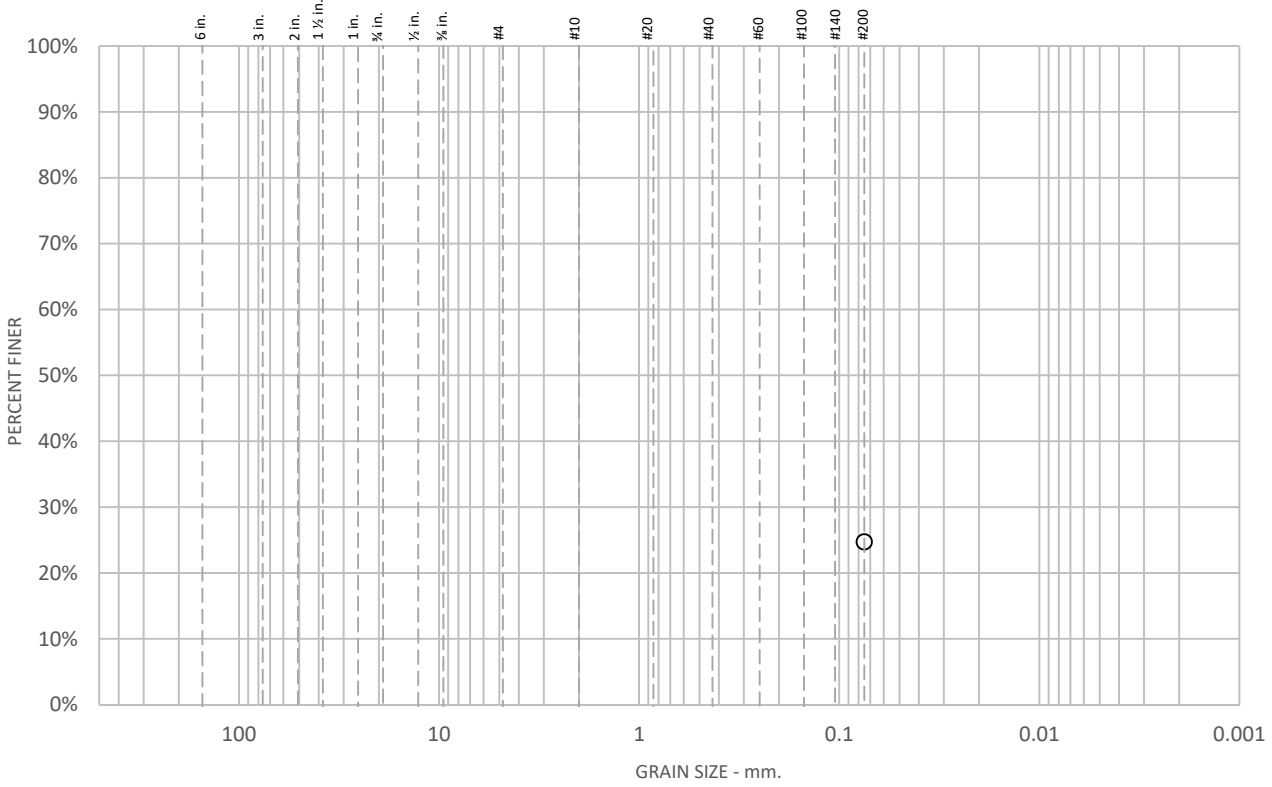
Client: Anil Verma Associates, Inc. **Project Number:** 16370.000.000
Project: City of Goleta Design for Trian Station **Date:** 8/30/2019
Project location: Goleta, CA

ENGEO Expect Excellence

Tested By: L. Santo Domingo **Checked By:** M. Quasem

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
						24.7	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	24.7		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = LL = PI =

Coefficients

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

Classification

USCS =

Remarks

ASTM D1140, Method B
Soak time = 180 min
Dry sample weight = 227.5 g

Sample Number: 1-B2 @ 25.5

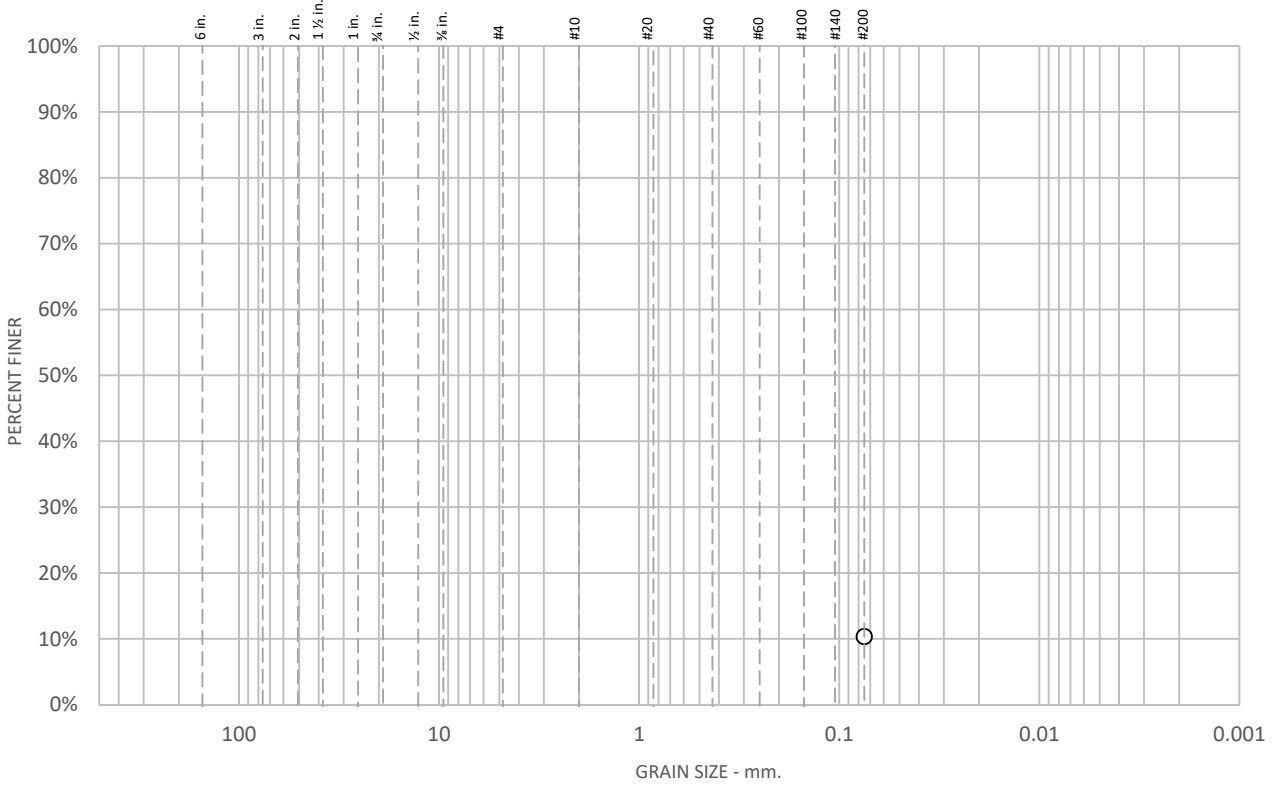
Client: Anil Verma Associates, Inc. **Project Number:** 16370.000.000
Project: City of Goleta Design for Trian Station **Date:** 8/30/2019
Project location: Goleta, CA

ENGEO Expect Excellence

Tested By: L. Santo Domingo **Checked By:** M. Quasem

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
						10.3	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	10.3		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = LL = PI =

Coefficients

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

Classification

USCS =

Remarks

ASTM D1140, Method B
Soak time = 180 min
Dry sample weight = 166.76 g

Sample Number: 1-B2 @ 35

Client: Anil Verma Associates, Inc.
Project: City of Goleta Design for Trian Station
Project location: Goleta, CA

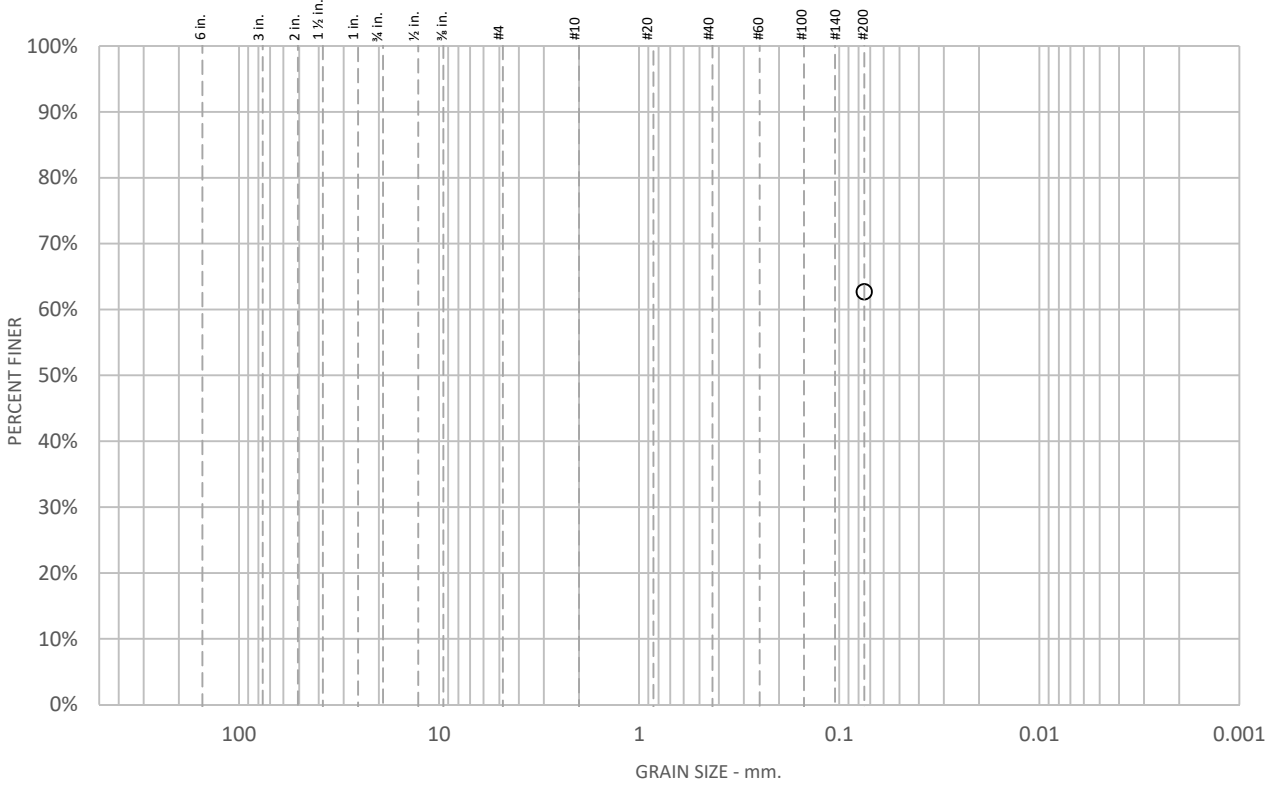
Project Number: 16370.000.000
Date: 8/30/2019

ENGEO Expect Excellence

Tested By: L. Santo Domingo **Checked By:** M. Quasem

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
						62.7	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	62.7		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = LL = PI =

Coefficients

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

Classification

USCS =

Remarks

ASTM D1140, Method B
Soak time = 180 min
Dry sample weight = 122.7 g

Sample Number: 1-B3 @ 11

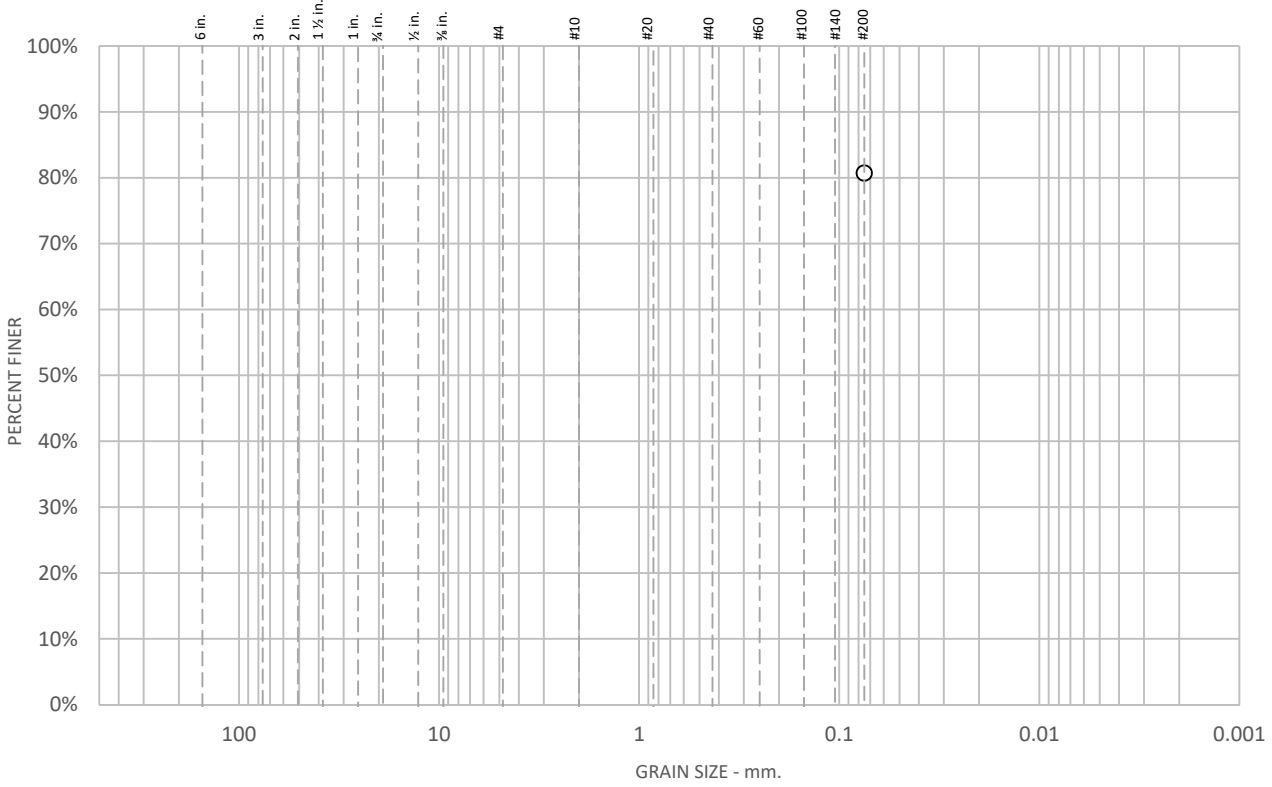
Client: Anil Verma Associates, Inc. **Project Number:** 16370.000.000
Project: City of Goleta Design for Trian Station **Date:** 8/30/2019
Project location: Goleta, CA

ENGEO Expect Excellence

Tested By: L. Santo Domingo **Checked By:** M. Quasem

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
						80.7	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	80.7		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = LL = PI =

Coefficients

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

Classification

USCS =

Remarks

ASTM D1140, Method B
Soak time = 180 min
Dry sample weight = 159.2 g

Sample Number: 1-B3 @ 15

Client: Anil Verma Associates, Inc.
Project: City of Goleta Design for Trian Station
Project location: Goleta, CA

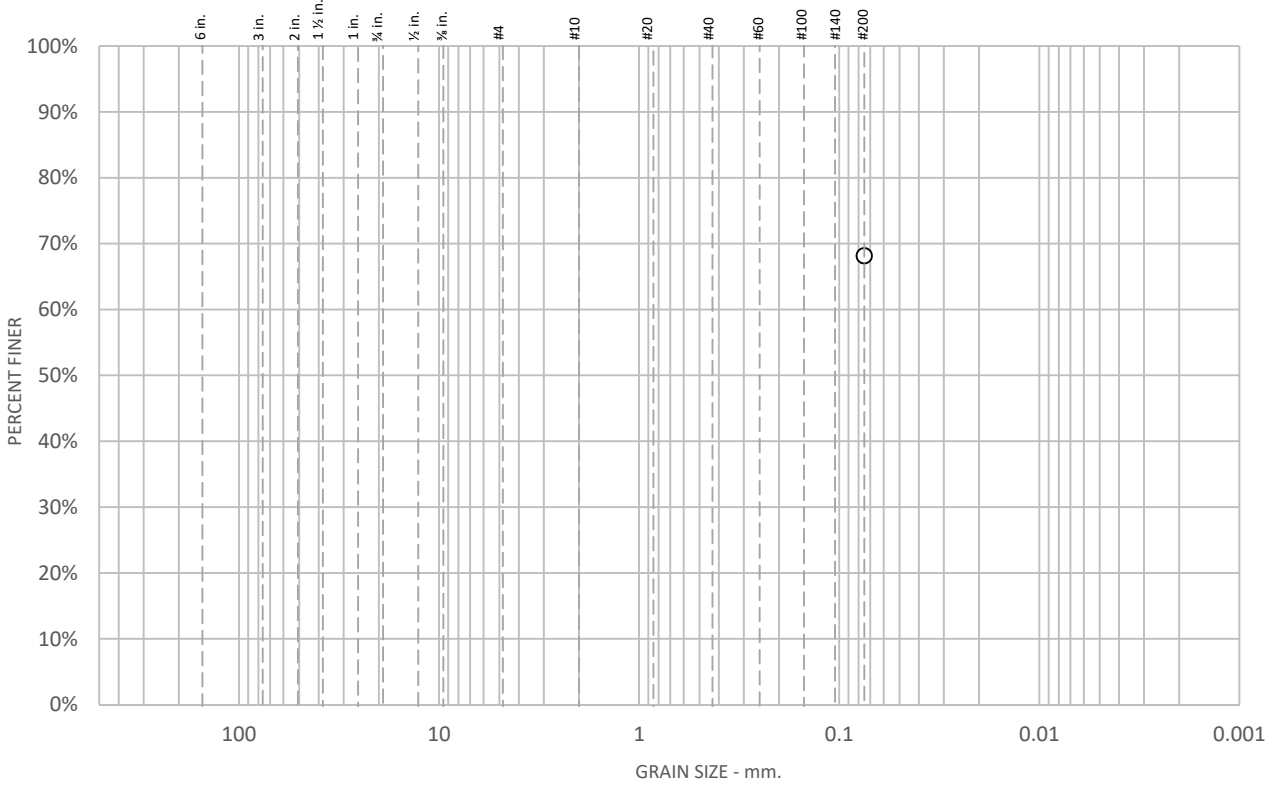
Project Number: 16370.000.000
Date: 8/30/2019

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Tested By: L. Santo Domingo **Checked By:** M. Quasem

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
						68.1	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	68.1		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = LL = PI =

Coefficients

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

Classification

USCS =

Remarks

ASTM D1140, Method B
Soak time = 180 min
Dry sample weight = 131.42 g

Sample Number: 1-B3 @ 20

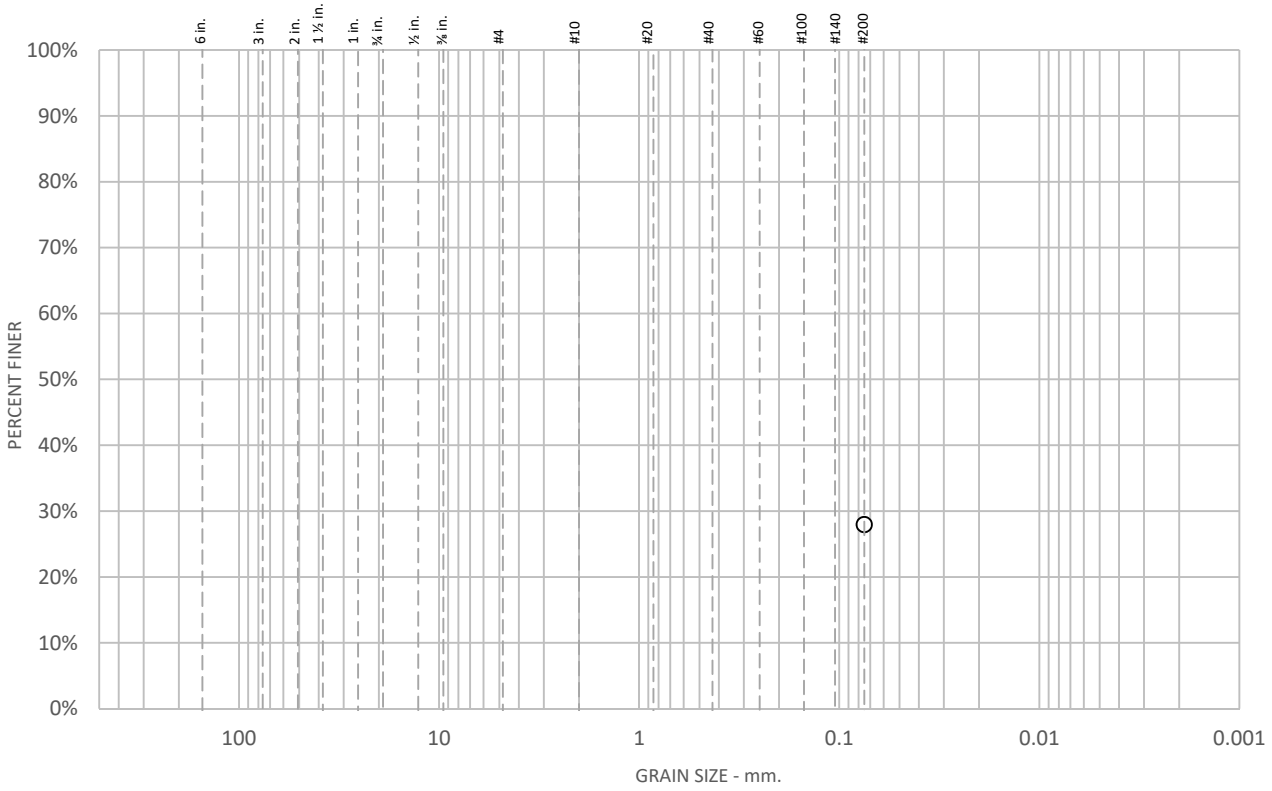
Client: Anil Verma Associates, Inc. **Project Number:** 16370.000.000
Project: City of Goleta Design for Trian Station **Date:** 8/30/2019
Project location: Goleta, CA

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Tested By: L. Santo Domingo **Checked By:** M. Quasem

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
						28.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	28.0		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = LL = PI =

Coefficients

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

Classification

USCS =

Remarks

ASTM D1140, Method B
Soak time = 180 min
Dry sample weight = 109.97 g

Sample Number: 1-B3 @ 25

Client: Anil Verma Associates, Inc.
Project: City of Goleta Design for Trian Station
Project location: Goleta, CA

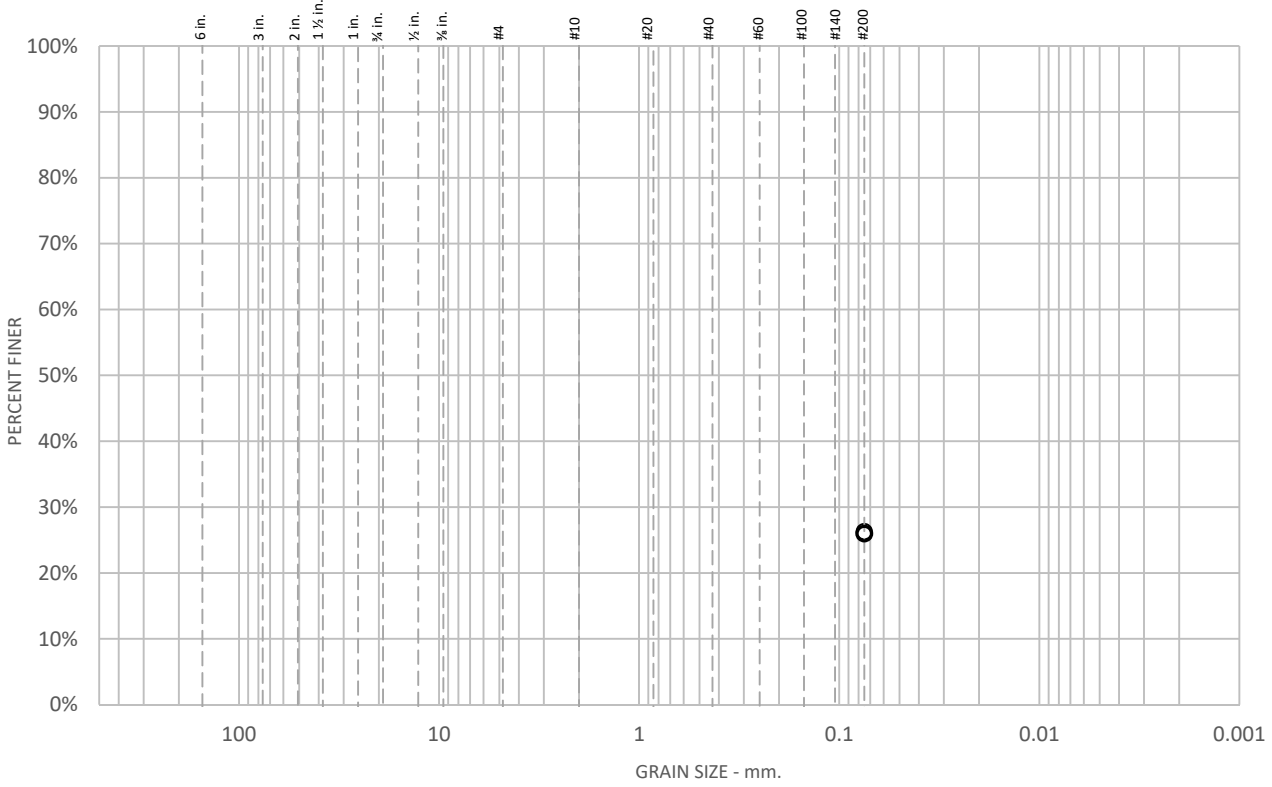
Project Number: 16370.000.000
Date: 8/30/2019

ENGEO Expect Excellence

Tested By: L. Santo Domingo
Checked By: M. Quasem

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
						26.3	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	26.3		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = LL = PI =

Coefficients

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

Classification

USCS =

Remarks

ASTM D1140, Method B
Soak time = 180 min
Dry sample weight = 185.99 g

Sample Number: 1-B3 @ 30

Client: Anil Verma Associates, Inc.
Project: City of Goleta Design for Trian Station
Project location: Goleta, CA

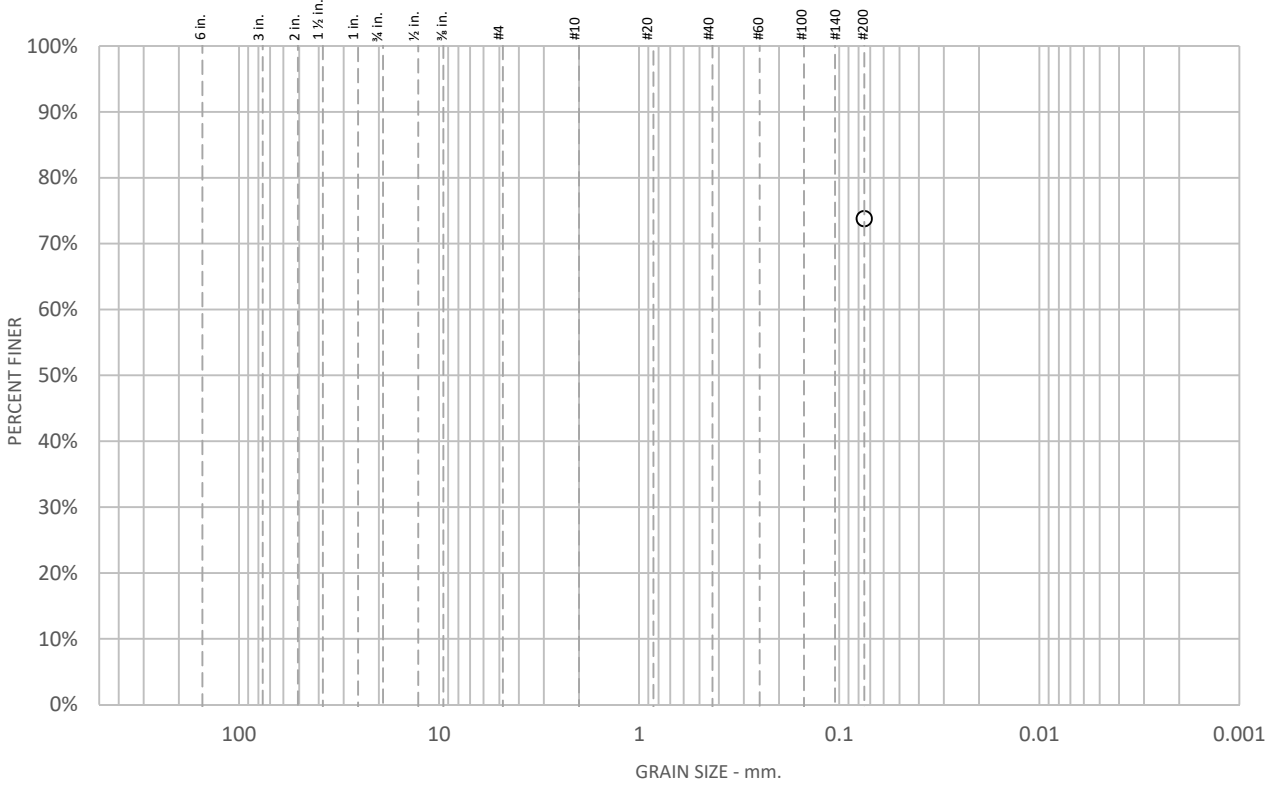
Project Number: 16370.000.000
Date: 8/30/2019

ENGEO Expect Excellence

Tested By: L. Santo Domingo **Checked By:** M. Quasem

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
						73.8	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	73.8		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = NP LL = NV PI = NP

Coefficients

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

Classification

USCS =

Remarks

PI: ASTM D4318, Wet Method
ASTM D1140, Method B
Soak time = 180 min
Dry sample weight = 109.91 g

Sample Number: 1-B3 @ 32.5

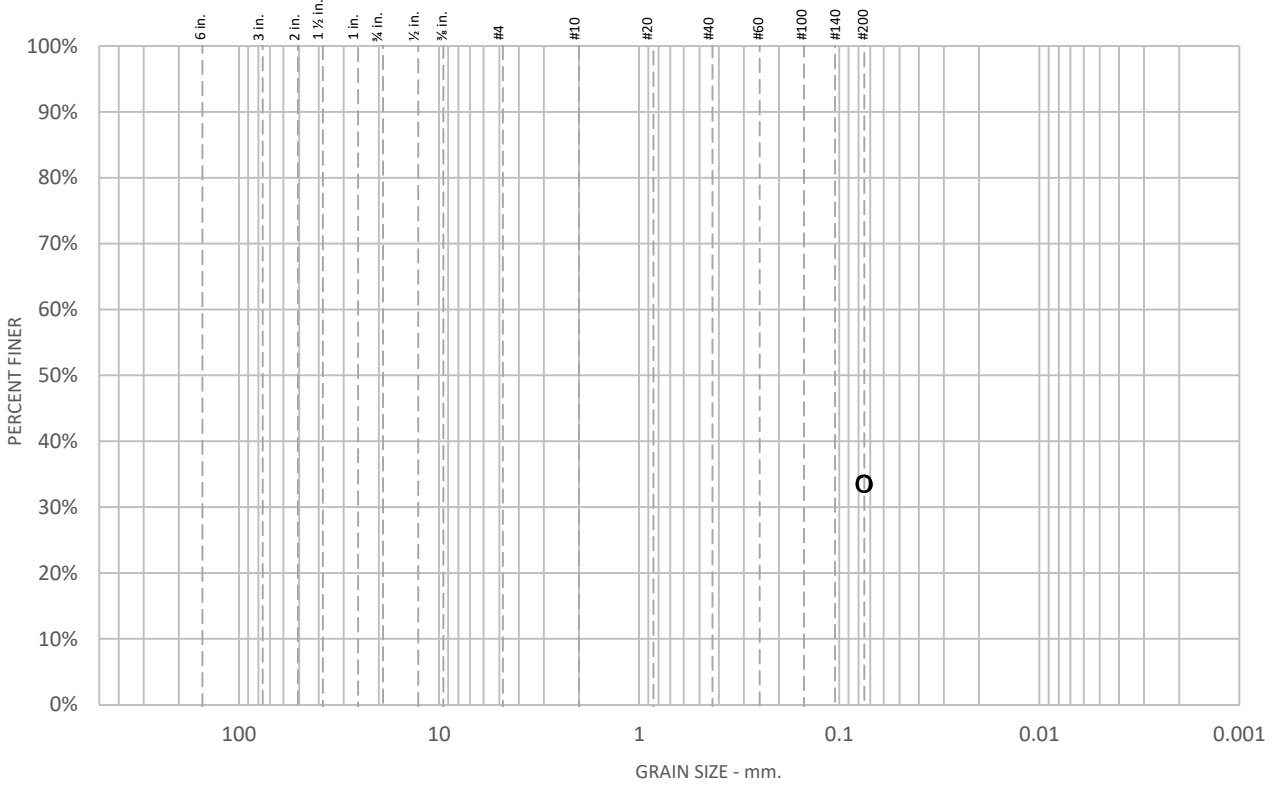
Client: Anil Verma Associates, Inc. **Project Number:** 16370.000.000
Project: City of Goleta Design for Trian Station **Date:** 8/30/2019
Project location: Goleta, CA

ENGEO Expect Excellence

Tested By: L. Santo Domingo **Checked By:** M. Quasem

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
						33.4	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	33.4		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = LL = PI =

Coefficients

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

Classification

USCS =

Remarks

ASTM D1140, Method B
Soak time = 180 min
Dry sample weight = 174.65 g

Sample Number: 1-B4 @ 20

Client: Anil Verma Associates, Inc.
Project: City of Goleta Design for Trian Station
Project location: Goleta, CA

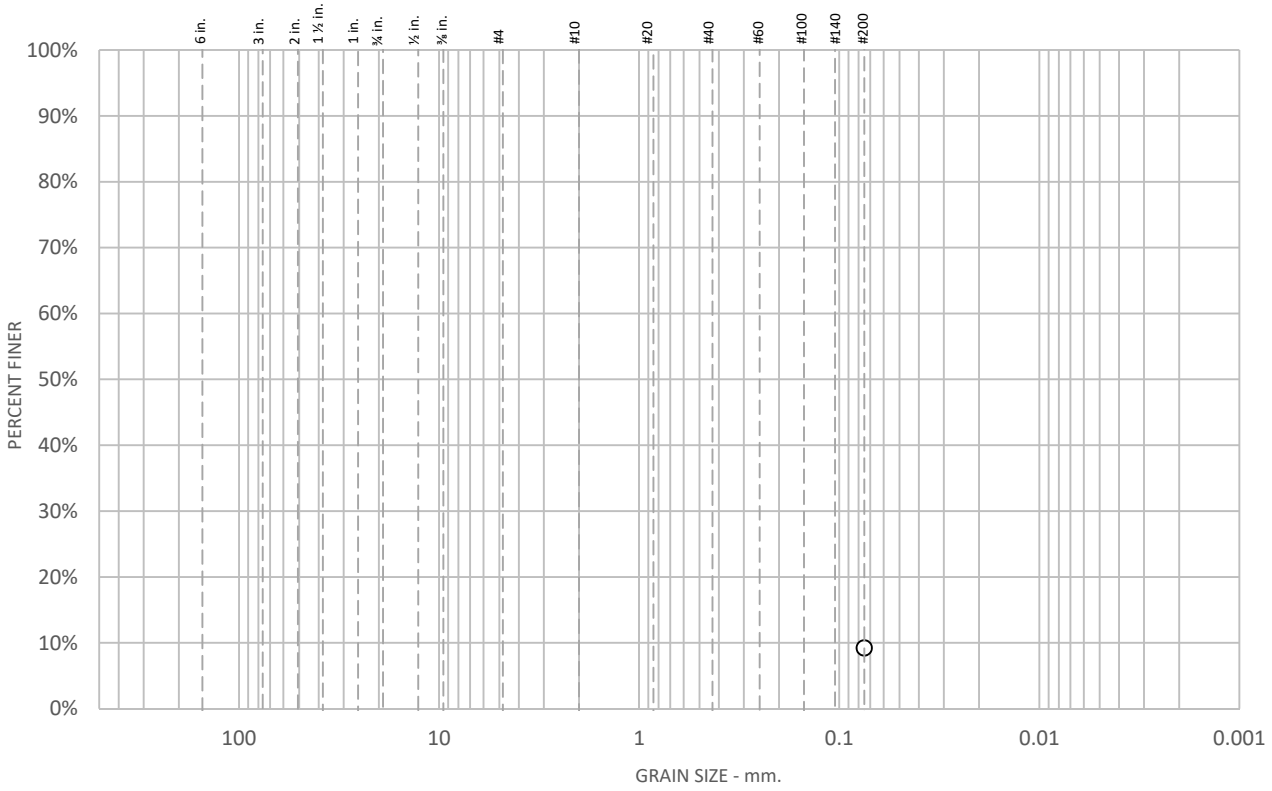
Project Number: 16370.000.000
Date: 8/30/2019

ENGEO Expect Excellence

Tested By: L. Santo Domingo **Checked By:** M. Quasem

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
						9.2	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	9.2		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = LL = PI =

Coefficients

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

Classification

USCS =

Remarks

ASTM D1140, Method B
Soak time = 180 min
Dry sample weight = 141.65 g

Sample Number: 1-B4 @ 25

Client: Anil Verma Associates, Inc.
Project: City of Goleta Design for Trian Station
Project location: Goleta, CA

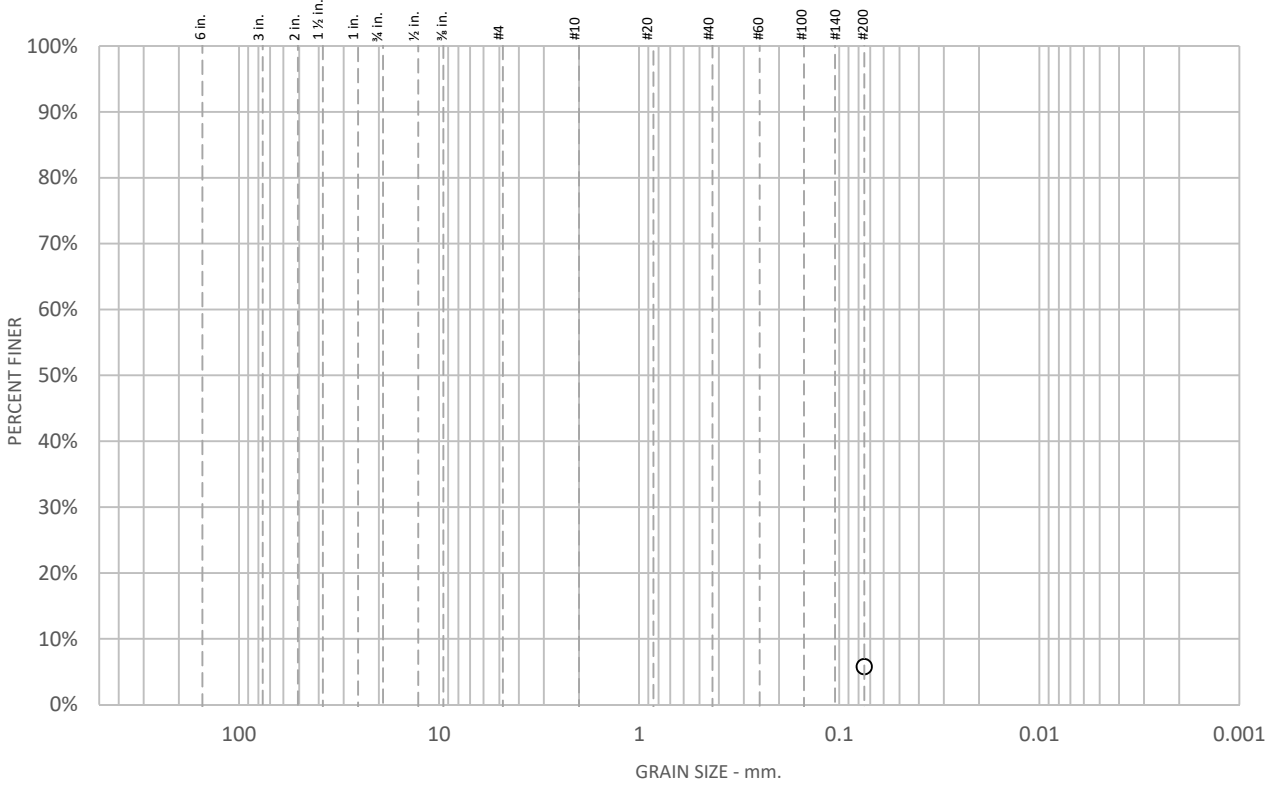
Project Number: 16370.000.000
Date: 8/30/2019

ENGEO Expect Excellence

Tested By: L. Santo Domingo
Checked By: M. Quasem

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
						5.8	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	5.8		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = LL = PI =

Coefficients

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

Classification

USCS =

Remarks

ASTM D1140, Method B
Soak time = 180 min
Dry sample weight = 172.09 g

Sample Number: 1-B4 @ 30

Client: Anil Verma Associates, Inc.
Project: City of Goleta Design for Trian Station
Project location: Goleta, CA

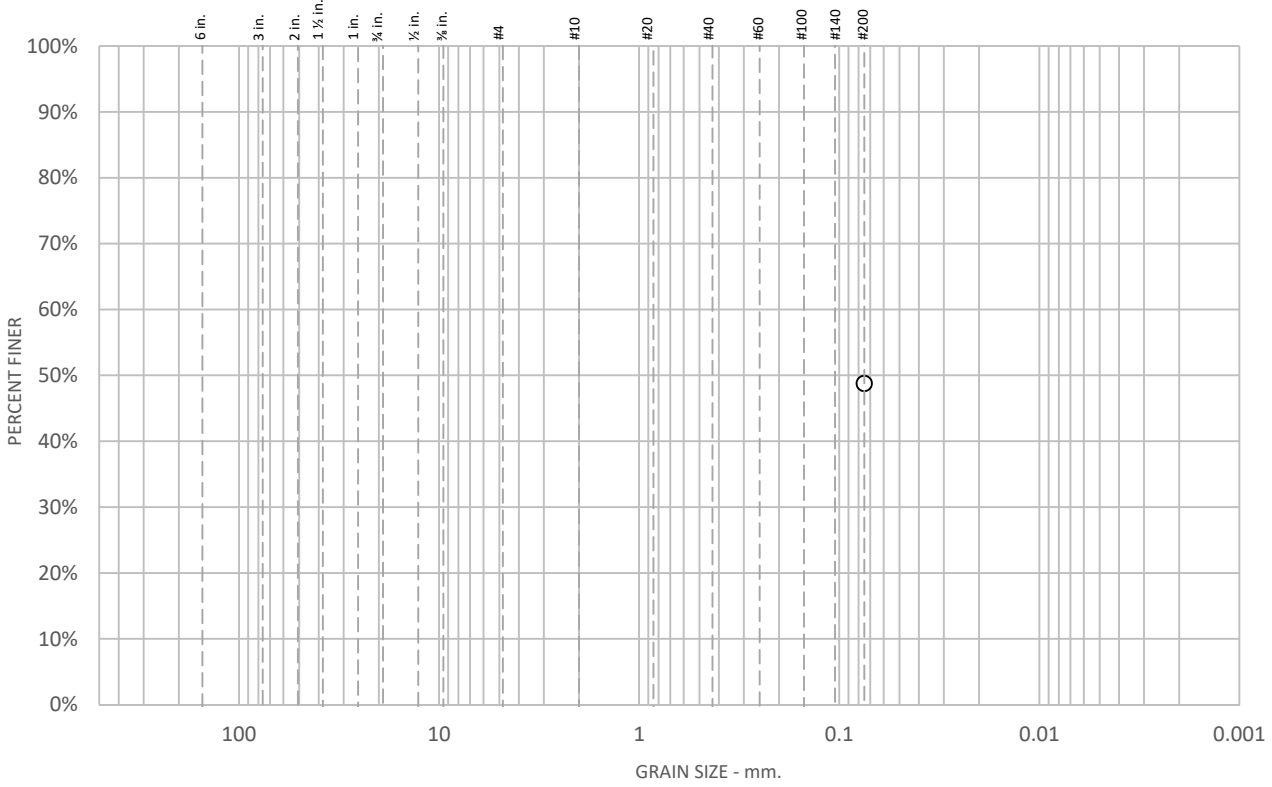
Project Number: 16370.000.000
Date: 8/30/2019

ENGEO Expect Excellence

Tested By: L. Santo Domingo
Checked By: M. Quasem

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
						48.8	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	48.8		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = 14 LL = 30 PI = 16

Coefficients

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

Classification

USCS =

Remarks

PI: ASTM D4318, Wet Method
ASTM D1140, Method B
Soak time = 180 min
Dry sample weight = 158.43 g

Sample Number: 1-B5 (Bulk)

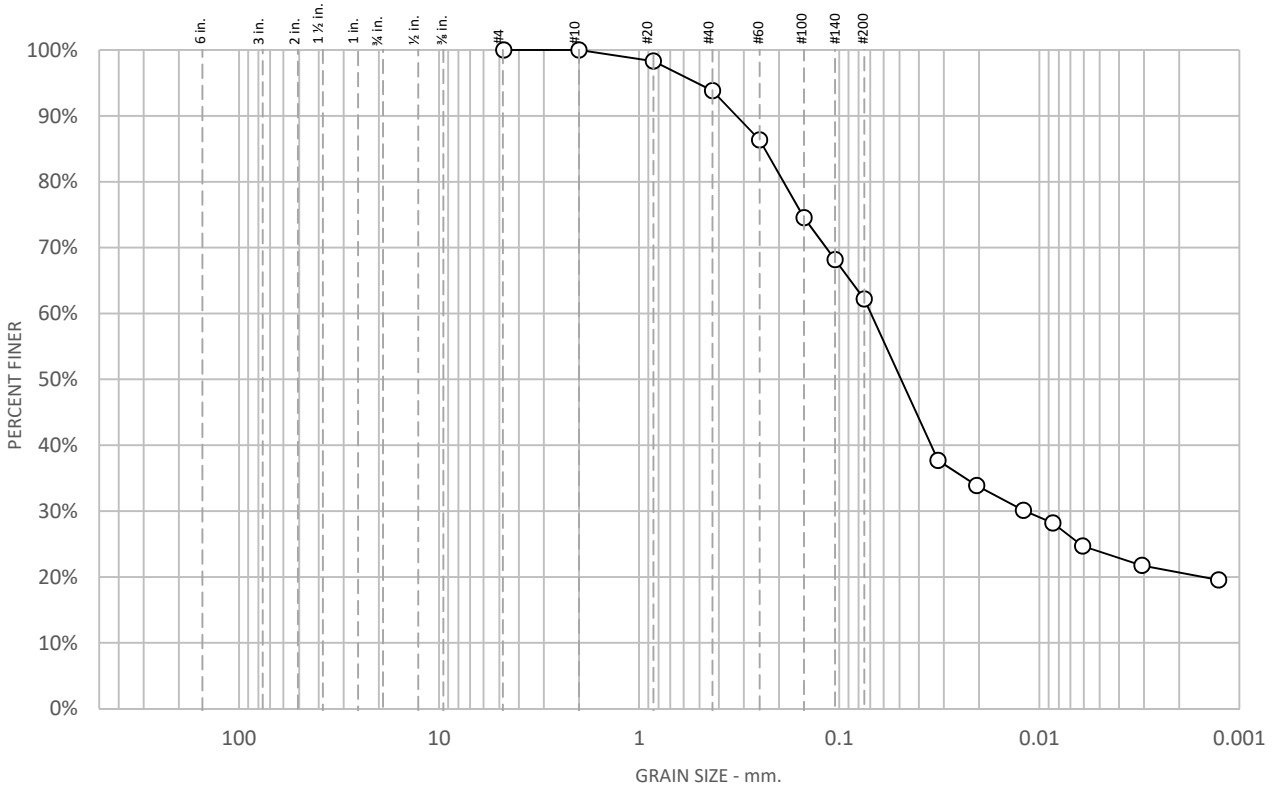
Client: Anil Verma Associates, Inc. **Project Number:** 16370.000.000
Project: City of Goleta Design for Trian Station **Date:** 8/30/2019
Project location: Goleta, CA

ENGEO Expect Excellence

Tested By: L. Santo Domingo **Checked By:** M. Quasem

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
				6.2	31.6	41.5	20.7

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	100.0		
#20	98.3		
#40	93.8		
#60	86.3		
#100	74.5		
#140	68.2		
#200	62.2		
0.0321 mm.	37.7		
0.0206 mm.	33.9		
0.0120 mm.	30.1		
0.0086 mm.	28.2		
0.0061 mm.	24.7		
0.0031 mm.	21.7		
0.0013 mm.	19.5		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = 16 LL = 37 PI = 21

Coefficients

D_{90} = 0.3260 mm D_{85} = 0.2359 mm D_{60} = 0.0695 mm
D_{50} = 0.0491 mm D_{30} = 0.0118 mm D_{15} =
D_{10} = C_u = C_c =

Classification

USCS = CL

Remarks

GS: ASTM D422 ASTM D422
Silt/clay division of 0.002mm used
PI: ASTM D4318, Wet Method
USCS: ASTM D2487

Sample Number: 1-B2 @ 1-3

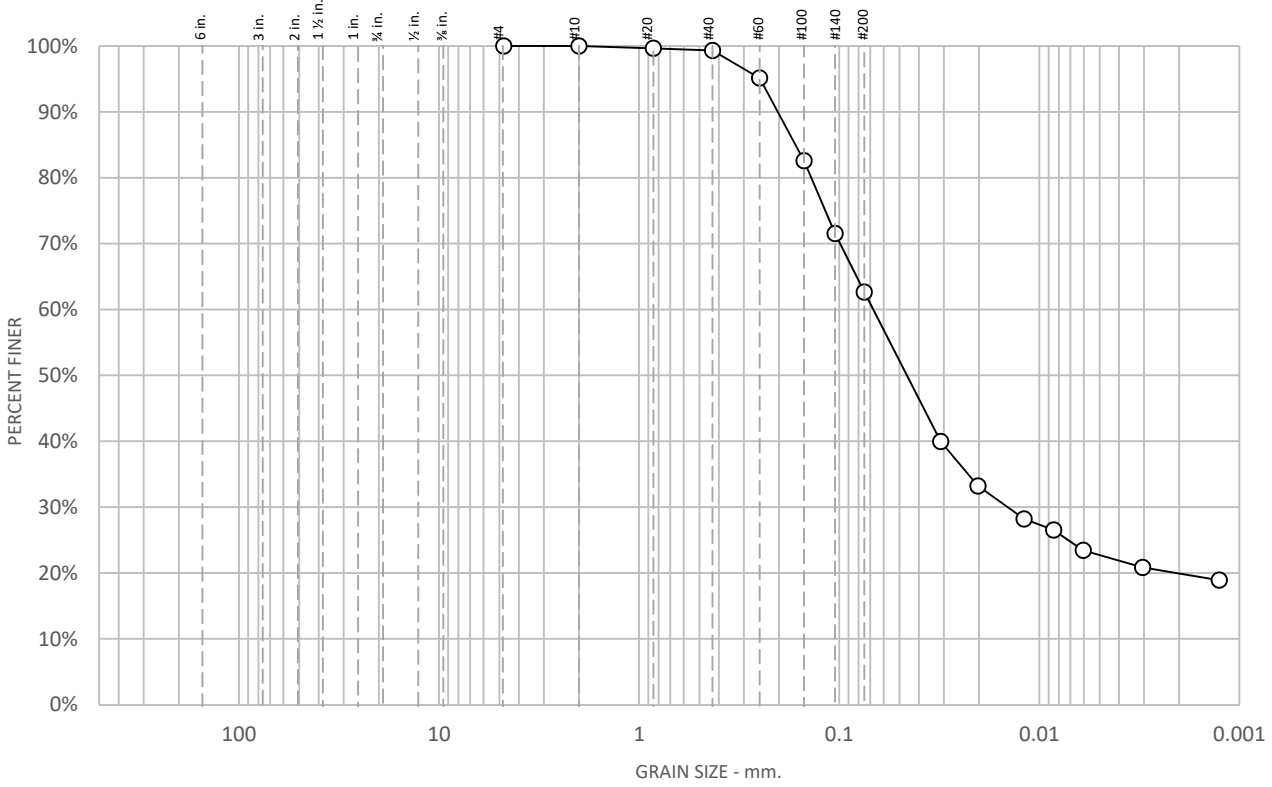
Client: Anil Verma Associates, Inc. **Project Number:** 16370.000.000
Project: City of Goleta Design for Train Station **Date:** 8/30/2019
Project location: Goleta, CA

ENGEO Expect Excellence

Tested By: L. Santo Domingo **Checked By:** M. Quasem

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
				0.7	36.7	42.7	19.9

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	100.0		
#20	99.7		
#40	99.3		
#60	95.1		
#100	82.6		
#140	71.5		
#200	62.6		
0.0311 mm.	39.9		
0.0202 mm.	33.2		
0.0119 mm.	28.2		
0.0085 mm.	26.5		
0.0060 mm.	23.4		
0.0030 mm.	20.8		
0.0013 mm.	18.9		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = 16 LL = 31 PI = 15

Coefficients

D_{90} = 0.2028 mm D_{85} = 0.1655 mm D_{60} = 0.0677 mm
D_{50} = 0.0460 mm D_{30} = 0.0144 mm D_{15} =
D_{10} = C_u = C_c =

Classification

USCS = CL

Remarks

GS: ASTM D422 ASTM D422
Silt/clay division of 0.002mm used
PI: ASTM D4318, Wet Method
USCS: ASTM D2487

Sample Number: 1-B2 @ 6

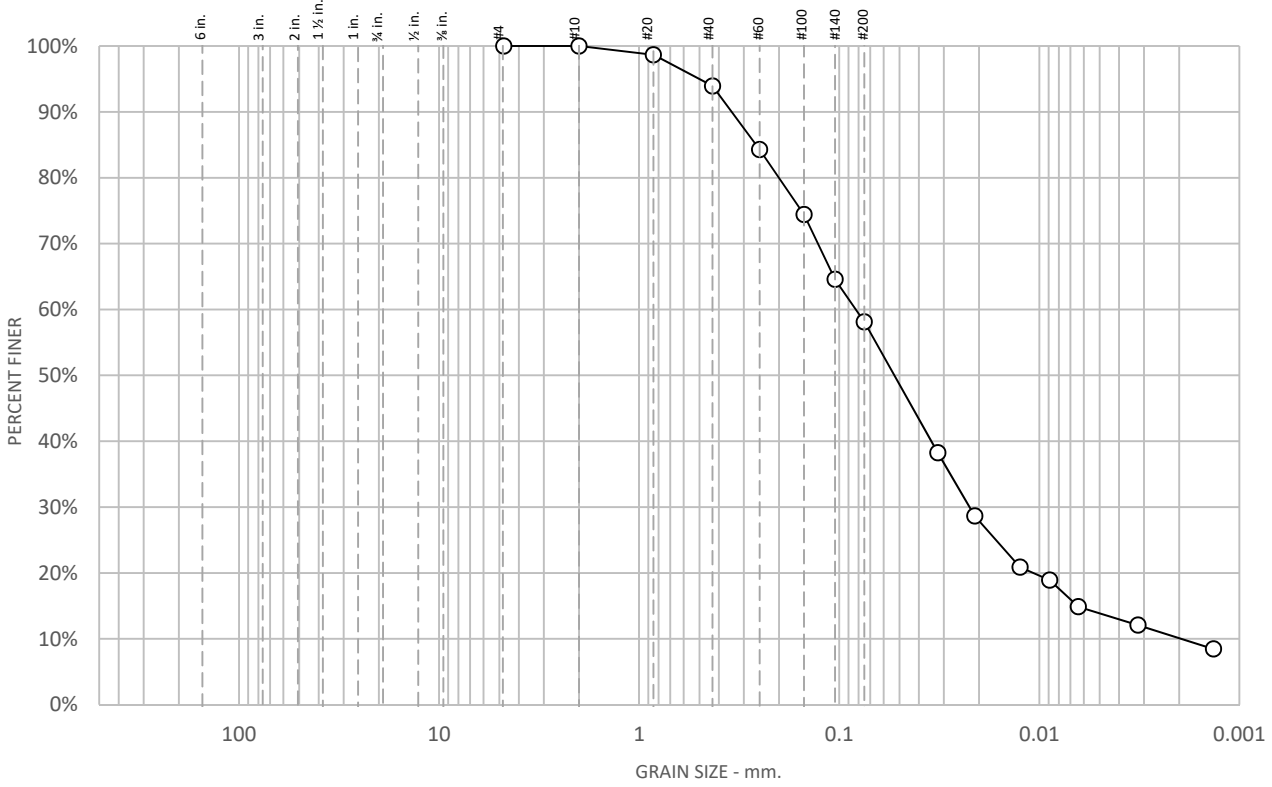
Client: Anil Verma Associates, Inc. **Project Number:** 16370.000.000
Project: City of Goleta Design for Train Station **Date:** 8/30/2019
Project location: Goleta, CA

ENGEO Expect Excellence

Tested By: L. Santo Domingo **Checked By:** M. Quasem

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
				6.1	35.8	48.0	10.1

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	100.0		
#20	98.7		
#40	93.9		
#60	84.3		
#100	74.4		
#140	64.6		
#200	58.1		
0.0322 mm.	38.2		
0.0210 mm.	28.7		
0.0125 mm.	20.9		
0.0089 mm.	18.9		
0.0064 mm.	14.9		
0.0032 mm.	12.1		
0.0013 mm.	8.5		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = 14 LL = 22 PI = 8

Coefficients

D_{90} = 0.3447 mm D_{85} = 0.2604 mm D_{60} = 0.0827 mm
D_{50} = 0.0531 mm D_{30} = 0.0223 mm D_{15} = 0.0065 mm
D_{10} = 0.0020 mm C_u = 42.38 C_c = 3.09

Classification

USCS = CL

Remarks

GS: ASTM D422 ASTM D422
Silt/clay division of 0.002mm used
PI: ASTM D4318, Wet Method
USCS: ASTM D2487

Sample Number: 1-B3 @ 1-3

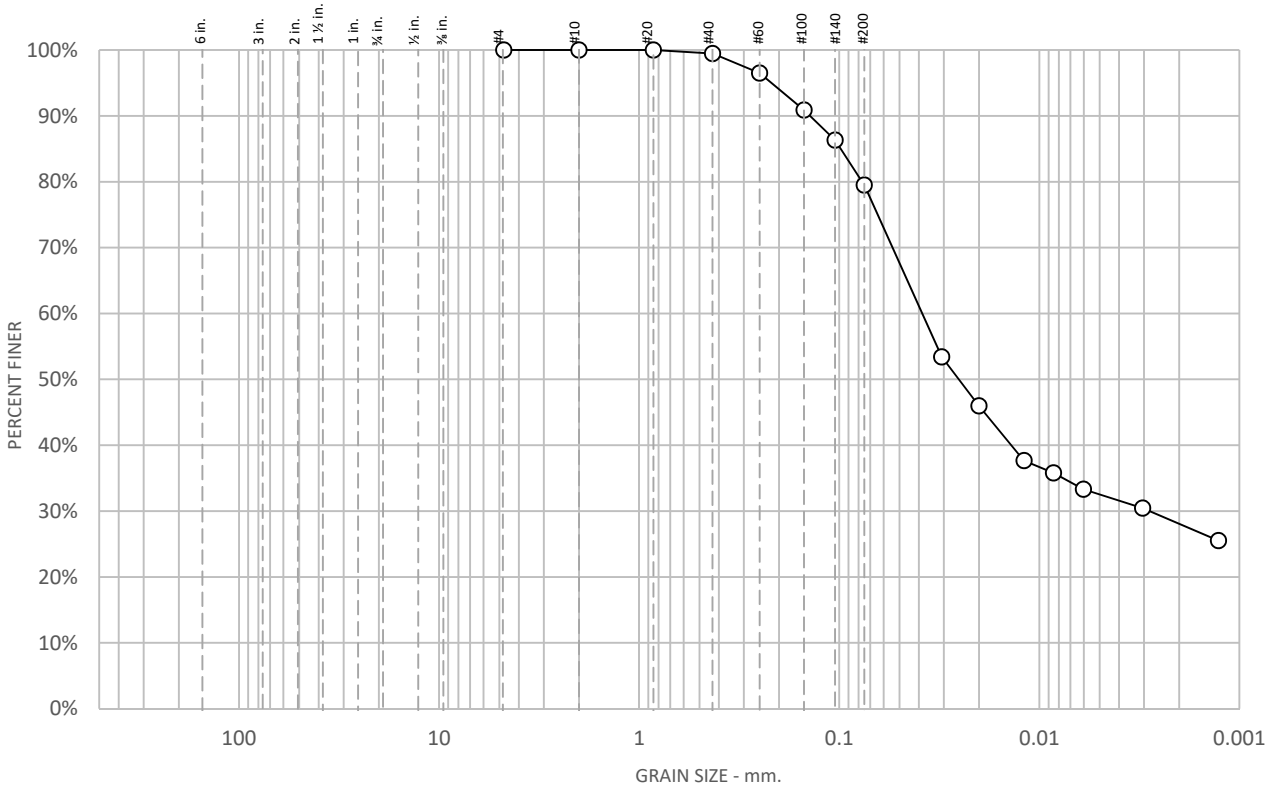
Client: Anil Verma Associates, Inc. **Project Number:** 16370.000.000
Project: City of Goleta Design for Train Station **Date:** 8/30/2019
Project location: Goleta, CA

ENGEO Expect Excellence

Tested By: L. Santo Domingo **Checked By:** M. Quasem

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
				0.5	20.0	51.4	28.1

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	100.0		
#20	100.0		
#40	99.5		
#60	96.5		
#100	90.9		
#140	86.3		
#200	79.5		
0.0307 mm.	53.4		
0.0200 mm.	46.0		
0.0119 mm.	37.7		
0.0085 mm.	35.8		
0.0060 mm.	33.3		
0.0030 mm.	30.5		
0.0013 mm.	25.5		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = 19 LL = 50 PI = 31

Coefficients

D_{90} = 0.1400 mm D_{85} = 0.0984 mm D_{60} = 0.0385 mm
D_{50} = 0.0253 mm D_{30} = 0.0028 mm D_{15} =
D_{10} = C_u = C_c =

Classification

USCS = CL

Remarks

GS: ASTM D422 ASTM D422
Silt/clay division of 0.002mm used
PI: ASTM D4318, Wet Method
USCS: ASTM D2487

Sample Number: 1-B3 @ 3.5

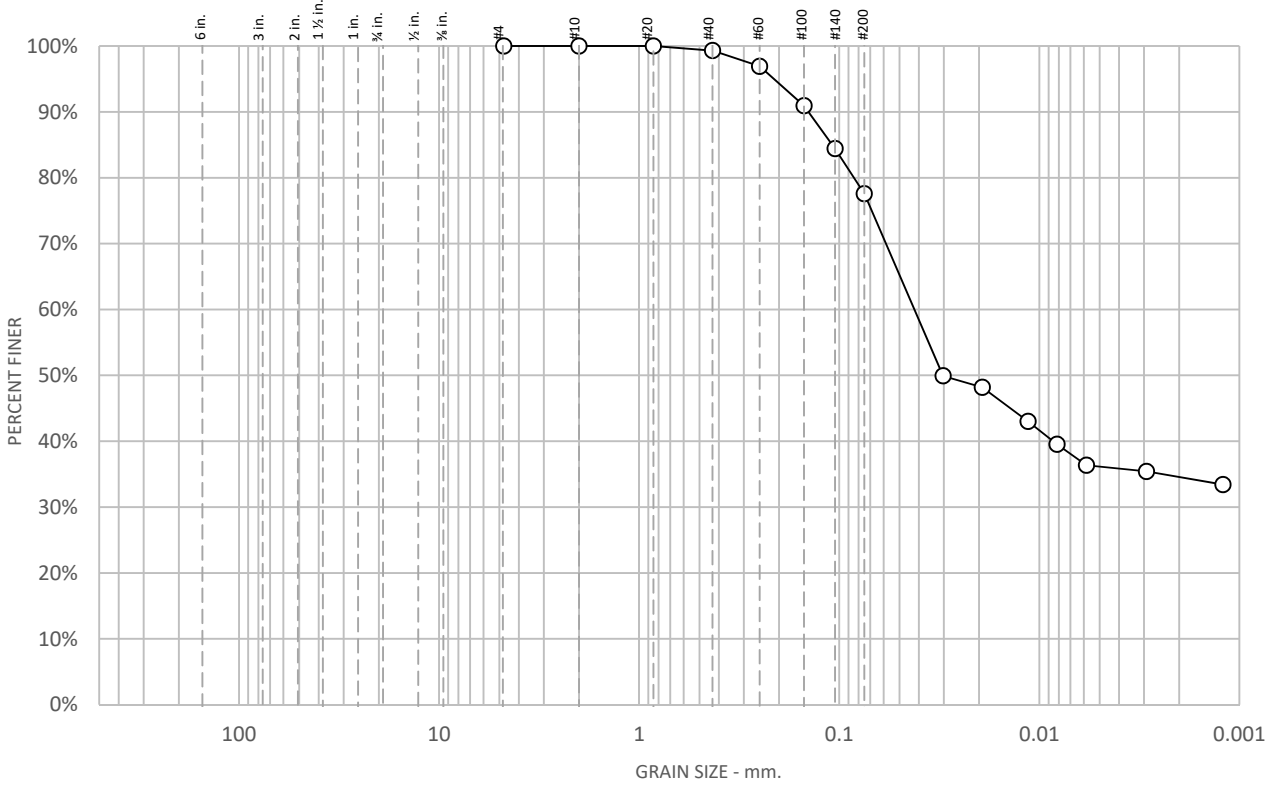
Client: Anil Verma Associates, Inc. **Project Number:** 16370.000.000
Project: City of Goleta Design for Train Station **Date:** 8/30/2019
Project location: Goleta, CA

ENGEO Expect Excellence

Tested By: L. Santo Domingo **Checked By:** M. Quasem

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
				0.7	21.7	43.0	34.6

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	100.0		
#20	100.0		
#40	99.3		
#60	96.9		
#100	90.9		
#140	84.4		
#200	77.6		
0.0303 mm.	49.9		
0.0193 mm.	48.2		
0.0114 mm.	43.0		
0.0082 mm.	39.5		
0.0058 mm.	36.3		
0.0029 mm.	35.4		
0.0012 mm.	33.4		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = 16 LL = 35 PI = 19

Coefficients

D_{90} = 0.1425 mm D_{85} = 0.1084 mm D_{60} = 0.0421 mm
D_{50} = 0.0303 mm D_{30} = D_{15} =
D_{10} = C_u = C_c =

Classification

USCS = CL

Remarks

GS: ASTM D422 ASTM D422
Silt/clay division of 0.002mm used
PI: ASTM D4318, Wet Method
USCS: ASTM D2487

Sample Number: 1-B3 @ 8.5

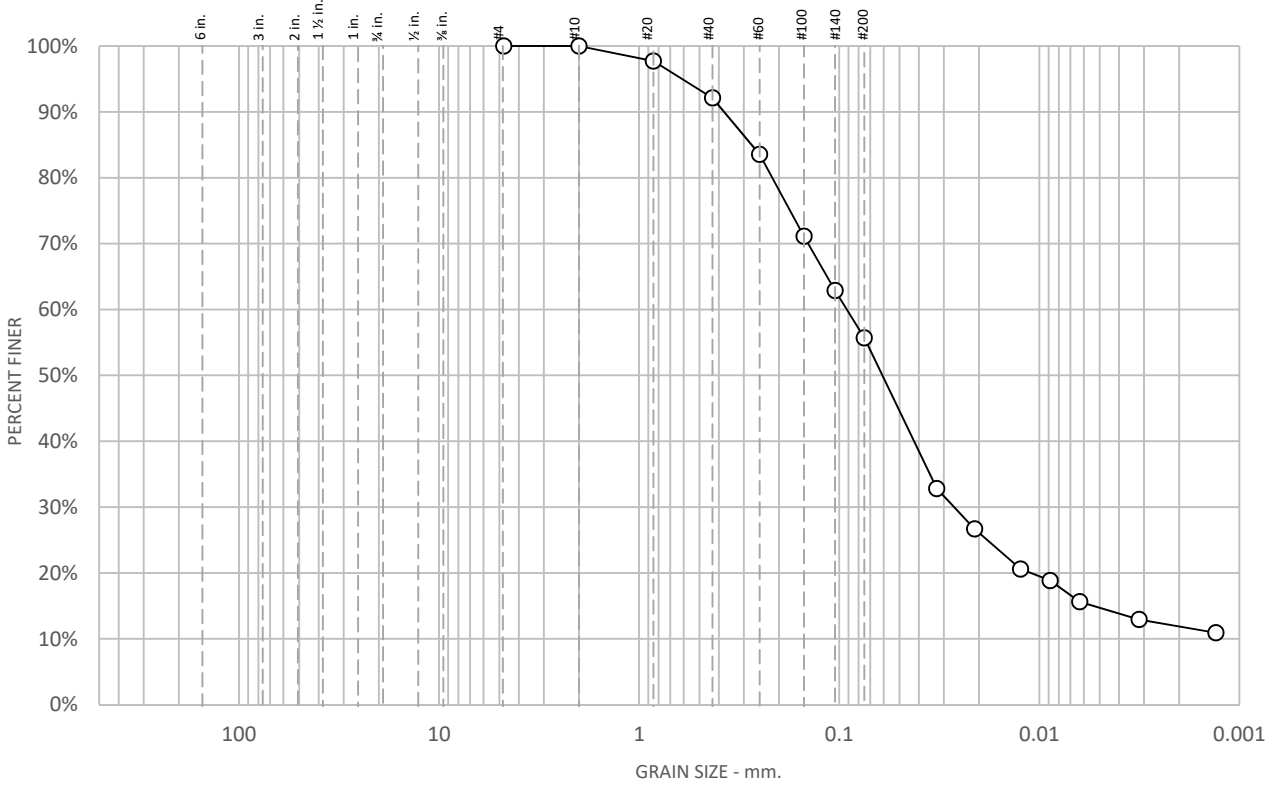
Client: Anil Verma Associates, Inc. **Project Number:** 16370.000.000
Project: City of Goleta Design for Train Station **Date:** 8/30/2019
Project location: Goleta, CA

ENGEO Expect Excellence

Tested By: L. Santo Domingo **Checked By:** M. Quasem

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
				7.9	36.4	43.8	11.9

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	100.0		
#20	97.7		
#40	92.1		
#60	83.5		
#100	71.1		
#140	62.9		
#200	55.7		
0.0326 mm.	32.8		
0.0211 mm.	26.7		
0.0124 mm.	20.6		
0.0088 mm.	18.8		
0.0063 mm.	15.6		
0.0032 mm.	12.9		
0.0013 mm.	10.9		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = 16 LL = 18 PI = 2

Coefficients

D_{90} = 0.3761 mm D_{85} = 0.2742 mm D_{60} = 0.0917 mm
D_{50} = 0.0609 mm D_{30} = 0.0267 mm D_{15} = 0.0054 mm
D_{10} = C_u = C_c =

Classification

USCS = CL

Remarks

GS: ASTM D422 ASTM D422
Silt/clay division of 0.002mm used
PI: ASTM D4318, Wet Method
USCS: ASTM D2487

Sample Number: 1-B4 @ 3.5

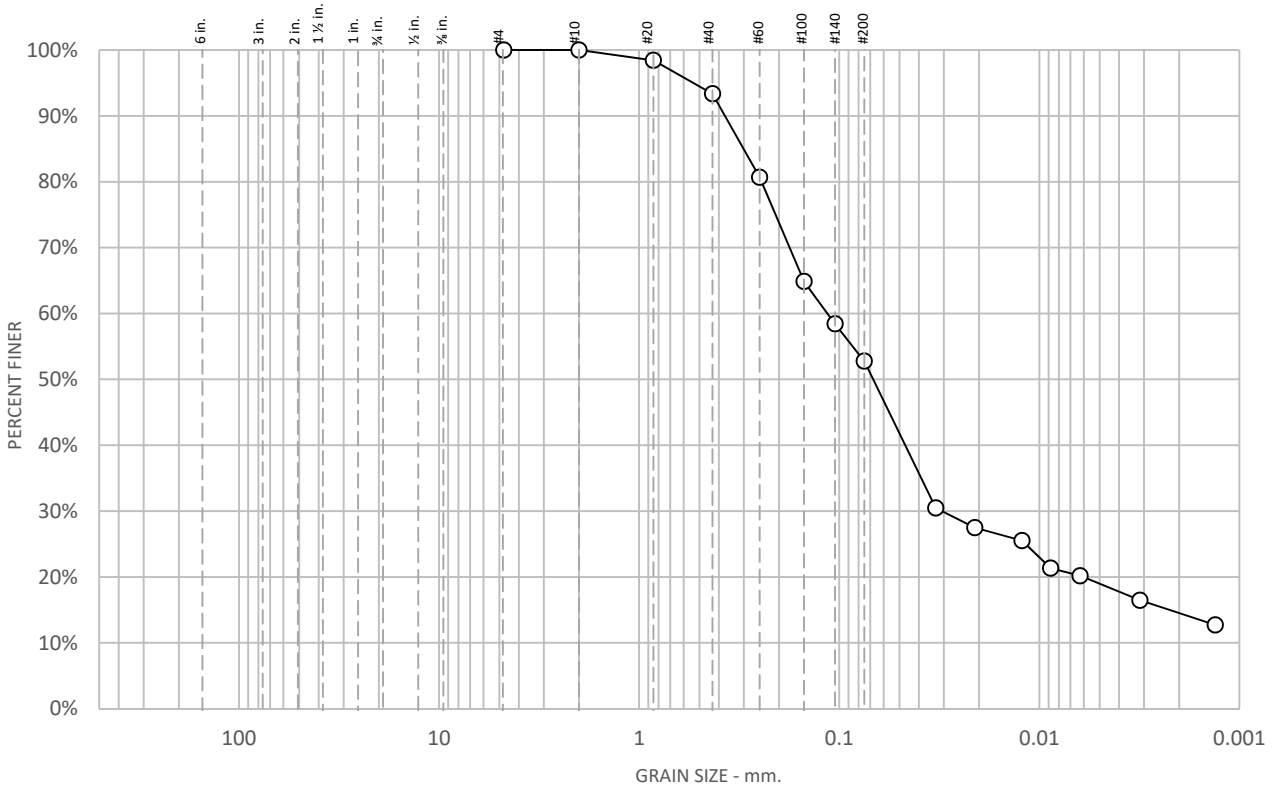
Client: Anil Verma Associates, Inc. **Project Number:** 16370.000.000
Project: City of Goleta Design for Train Station **Date:** 8/30/2019
Project location: Goleta, CA

ENGEO Expect Excellence

Tested By: L. Santo Domingo **Checked By:** M. Quasem

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
				6.6	40.6	38.3	14.5

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	100.0		
#20	98.4		
#40	93.4		
#60	80.7		
#100	64.9		
#140	58.4		
#200	52.8		
0.0329 mm.	30.5		
0.0210 mm.	27.5		
0.0122 mm.	25.5		
0.0088 mm.	21.3		
0.0063 mm.	20.2		
0.0031 mm.	16.5		
0.0013 mm.	12.7		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL = 18 LL = 26 PI = 8

Coefficients

D_{90} = 0.3724 mm D_{85} = 0.3008 mm D_{60} = 0.1146 mm
D_{50} = 0.0677 mm D_{30} = 0.0307 mm D_{15} = 0.0022 mm
D_{10} = C_u = C_c =

Classification

USCS = CL

Remarks

GS: ASTM D422 ASTM D422
Silt/clay division of 0.002mm used
PI: ASTM D4318, Wet Method
USCS: ASTM D2487

Sample Number: P2 @ 1-3

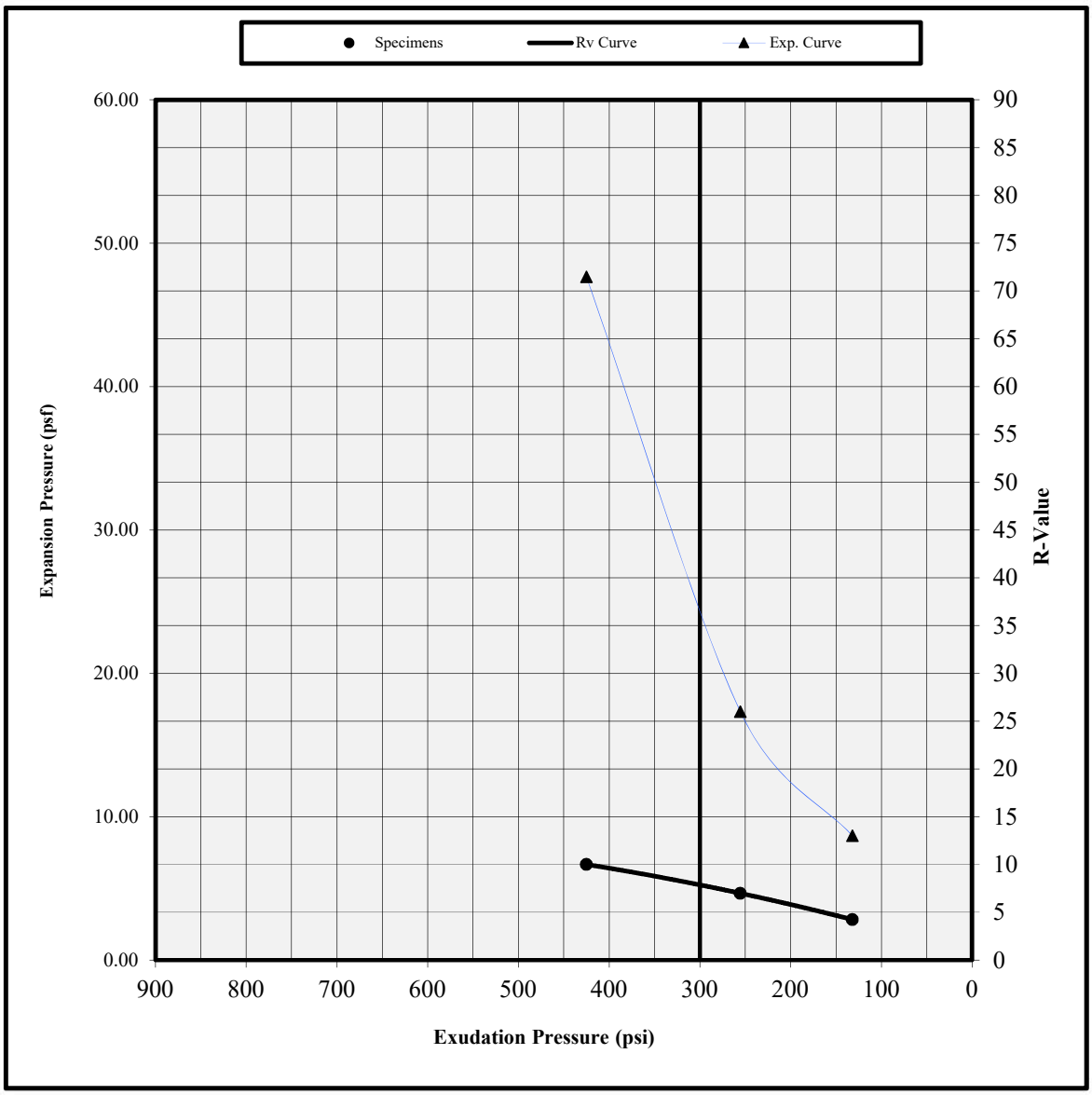
Client: Anil Verma Associates, Inc. **Project Number:** 16370.000.000
Project: City of Goleta Design for Train Station **Date:** 8/30/2019
Project location: Goleta, CA

ENGEO Expect Excellence

Tested By: L. Santo Domingo **Checked By:** M. Quasem

Test Location: 3420 Fostoria Way, Suite E, Danville, CA 94526

R VALUE TEST REPORT
CTM-301



Sample ID/Location: 1-B1
Description: See Exploration Logs
Test remarks:

Specimen	Specimen 1	Specimen 2	Specimen 3
Exudation Pressure (p.s.i.)	425	255	132
Expansion dial (0.0001")	11	4	2
Expansion Pressure (p.s.f.)	48	17	9
Resistance Value, "R"	10	7	4
% Moisture at Test	13.3	14.7	16.9
Dry Density at Test, p.c.f.	119.3	114.7	110.4
"R" Value at Exudation Pressure of 300 psi.		7	
Expansion Pressure (psf) at Exudation Pressure of 300 psi.		25	

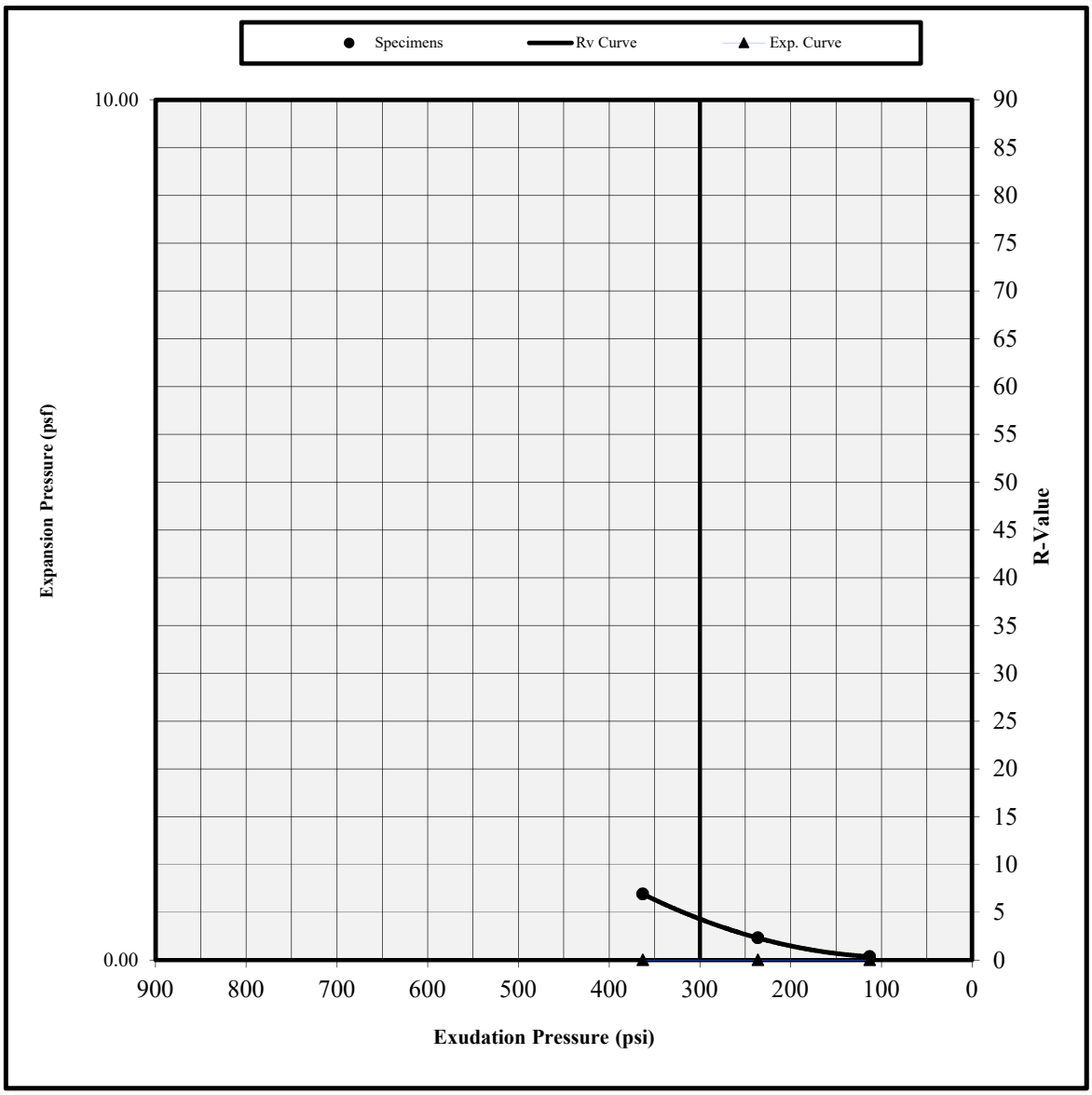
PROJECT NAME: City of Goleta Design for Train Station
PROJECT NUMBER: 16370.000.000
CLIENT: Anil Verma Associates, Inc.
PHASE NUMBER: REIM
DATE: 08/23/19

ENGEO Expect Excellence

Tested by: W. Miller
Reviewed by: G. Criste

Lab Address : 3420 Fostoria Way, Suite E, Danville, CA 94526

R VALUE TEST REPORT
CTM-301



Sample ID/Location: 1-B4
Description: See Exploration Logs
Test remarks:

Specimen	Specimen 1	Specimen 2	Specimen 3
Exudation Pressure (p.s.i.)	363	236	113
Expansion dial (0.0001")	0	0	0
Expansion Pressure (p.s.f.)	0	0	0
Resistance Value, "R"	7	2	0
% Moisture at Test	10.8	15.0	16.9
Dry Density at Test, p.c.f.	119.9	113.8	112.6
"R" Value at Exudation Pressure of 300 psi.	Less Than 5		
Expansion Pressure (psf) at Exudation Pressure of 300 psi.	0		

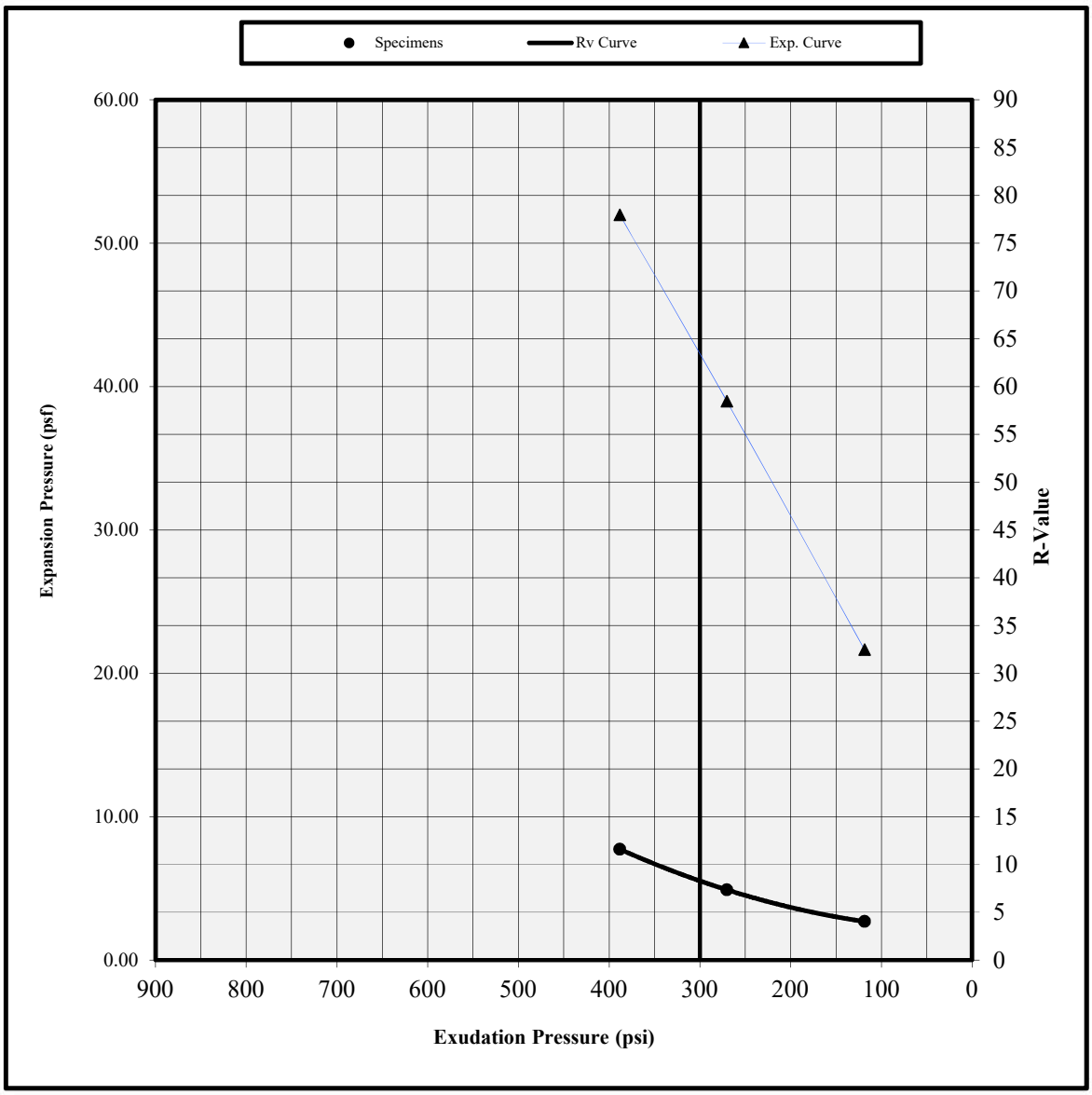
PROJECT NAME: City of Goleta Design for Train Station
PROJECT NUMBER: 16370.000.000
CLIENT: Anil Verma Associates, Inc.
PHASE NUMBER: REIM
DATE: 08/24/19

ENGEO Expect Excellence

Tested by: W. Miller
Reviewed by: G. Criste

Lab Address : 3420 Fostoria Way, Suite E, Danville, CA 94526

R VALUE TEST REPORT
CTM-301



Sample ID/Location: 1-B5
Description: See Exploration Logs
Test remarks:

Specimen	Specimen 1	Specimen 2	Specimen 3
Exudation Pressure (p.s.i.)	388	270	119
Expansion dial (0.0001")	12	9	5
Expansion Pressure (p.s.f.)	52	39	22
Resistance Value, "R"	12	7	4
% Moisture at Test	15.5	17.4	18.9
Dry Density at Test, p.c.f.	112.6	109.3	106.6
"R" Value at Exudation Pressure of 300 psi.		8	
Expansion Pressure (psf) at Exudation Pressure of 300 psi.		43	

PROJECT NAME: City of Goleta Design for Train Station
PROJECT NUMBER: 16370.000.000
CLIENT: Anil Verma Associates, Inc.
PHASE NUMBER: REIM
DATE: 08/24/19

ENGEO Expect Excellence

Tested by: W. Miller
Reviewed by: G. Criste

Lab Address : 3420 Fostoria Way, Suite E, Danville, CA 94526

California State Certified Laboratory No. 2153

CERCO analytical
1100 Willow Pass Court, Suite A
Concord, CA 94520-1006
925 462 2771 Fax. 925 462 2775
www.cercoanalytical.com

4 September, 2019

Job No. 1908138
Cust. No. 13096

Mr. Randy Hildebrant
ENGISO Inc.
2646 Santa Maria Way, Suite 107
Santa Maria, CA 93455

Subject: Project No.: 16370.000.000
Project Name: Goleta, CA
Corrosivity Analysis – ASTM Test Methods

Dear Mr. Hildebrant:

Pursuant to your request, CERCO Analytical has analyzed the soil samples submitted on August 19, 2019. Based on the analytical results, this brief corrosivity evaluation is enclosed for your consideration.

Based upon the resistivity measurements, Samples No.001 & No.002 are classified as "corrosive" and Sample No.003 is classified as "moderately corrosive". All buried iron, steel, cast iron, ductile iron, galvanized steel and dielectric coated steel or iron should be properly protected against corrosion depending upon the critical nature of the structure. All buried metallic pressure piping such as ductile iron firewater pipelines should be protected against corrosion.

The chloride ion concentrations reflect none detected with a reporting limit of 15 mg/kg.

The sulfate ion concentrations ranged from 25 to 43 mg/kg and are determined to be insufficient to damage reinforced concrete structures and cement mortar-coated steel at these locations.

The pH of the soils ranged from 7.71 to 8.85, which does not present corrosion problems for buried iron, steel, mortar-coated steel and reinforced concrete structures.

The redox potentials ranged from 180 to 210-mV. Sample No.001 is indicative of potentially "moderately corrosive" soils and the remaining samples are indicative of potentially "slightly corrosive" soils resulting from anaerobic soil conditions,

This corrosivity evaluation is based on general corrosion engineering standards and is non-specific in nature. For specific long-term corrosion control design recommendations or consultation, please call *JDH Corrosion Consultants, Inc. at (925) 927-6630*.

We appreciate the opportunity of working with you on this project. If you have any questions, or if you require further information, please do not hesitate to contact us.

Very truly yours,
CERCO ANALYTICAL, INC.

J. Darby Howard, Jr., P.E.
President

JDH/jdl
Enclosure

California Stare Certified Laboratory No. 2153

CERCO analytical
1100 Willow Pass Court, Suite A
Concord, CA 94520-1006
925 462 2771 Fax. 925 462 2775
www.cercoanalytical.com

Client: ENGEO Incorporated
Client's Project No.: 16370.000.000
Client's Project Name: Goleta, CA
Date Sampled: 13-Aug-19
Date Received: 19-Aug-19
Matrix: Soil
Authorization: Signed Chain of Custody

Date of Report: 4-Sep-2019

Job/Sample No.	Sample I.D.	Redox (mV)	pH	Conductivity (umhos/cm)	Resistivity (100% Saturation) (ohms-cm)	Sulfide (mg/kg)*	Chloride (mg/kg)*	Sulfate (mg/kg)*
1908138-001	1-B2 @ 1-3'	180	8.85	-	1,900	-	N.D.	30
1908138-002	1-B3 @ 1-3'	200	7.87	-	1,400	-	N.D.	43
1908138-003	1-B4 @ 1-3'	210	7.71	-	4,400	-	N.D.	25

Method:	ASTM D1498	ASTM D4972	ASTM D1125M	ASTM G57	ASTM D4658M	ASTM D4327	ASTM D4327
Reporting Limit:	-	-	10	-	50	15	15
	29-Aug-2019	29-Aug-2019	-	30-Aug-2019	-	3-Sep-2019	3-Sep-2019

Cheryl McMillen
Laboratory Director

* Results Reported on "As Received" Basis
N.D. - None Detected

Quality Control Summary - All laboratory quality control parameters were found to be within established limits

Chain of Custody

Page 1 of 1

Concord, CA 94520-1006
925 462 2771
Fax: 925 462 2775
CERCO analytical

Job No.	CU#		Client Project I.D.	Schedule	Date Sampled	Date Due
1405138			1637o.000.000	Analyte		

Full Name: Randy Hildebrant (Y) — Phone: 805-838-1110 X — Fax:

Company and/or Mailing Address: ENGEO, 2646 XX 107, Santa Maria, CA 93455 ☒ — Cell:

Sample Source: Goleta, CA

Lab No.	Sample I.D.	Date	Time	Matrix	Contain.	Size	Preserv.	Qtv.	Redox Potential	pH	Sulfate	Chloride	Resistivity-100% Saturated			Brief Evaluation						
									ANALYSIS													ASTM
1	1-B2 @ 1-3 ft	8/13	11:50am	Soil		1 gal		1	x	x	x	x	x			x						
2	1-B3 @ 1-3 ft	8/13	9:00am	Soil		1 gt		1	x	x	x	x	x			x						
3	1-B4 @ 1-3 ft	8/13	11:02	Soil		1 gal		1	x	x	x	x	x			x						

MATRIX: DW - Drinking Water; GW - Ground Water; SW - Surface Water; WW - Waste Water; Water; SL - Sludge; S - Soil; Product

ABBREVIATIONS: HB - Hosebib; PV - Petcock Valve; PT - Pressure Tank; PH - Pump House; RR - Restroom; GL - Glass; PL - Plastic; ST - Sterile

SAMPLE RECEIPT: Total No. of Containers; Rec'd Good Cond/Cold; Conforms to Record; Temp. at Lab - °C; Sampler

Relinquished By:	Date 12/14/2013	Time 8:00
Received By:	Date 8/19/14	Time 0930
Relinquished By:	Date	Time
Received By:	Date	Time
Relinquished By:	Date	Time
Received By:	Date	Time

Comments:

THERE IS AN ADDITIONAL CHARGE FOR EXTRUDING SOIL FROM METAL TUBES

Email Address: rhildebrant@engeo.com



APPENDIX C

PERCOLATION TEST DATA

Location 1-P1

Date 8/14/2019
Job # 16370.000.000
Job Name Goleta Train Station

Hole diameter (in) 5
Perf pipe diam (in) 4
Depth of hole (ft) 4.5
Gravel thickness ~2"

Saturated water level Surface
Saturation date & time 8/13/2019 12:00pm

Percolation Test Measurements

	Notes	Time	Depth to Water from Reference Point (ft)	Total Head (in)	Elapsed Time (min.)	Change in Water Level (ft)	Prec. Rate (m.p.i)
1	12" Starting head	8:53 AM	4.16	12			
2		9:42 AM	4.13	12.4	49	-0.03	-
3		10:03 AM	4.13	12.4	21	0	-
4		10:23 AM	4.12	12.5	20	-0.01	-
5		10:43 AM	4.12	12.5	20	0	-
6		11:03 AM	4.11	12.6	20	-0.01	-
7		11:23 AM	4.11	12.6	20	0	-
8		12:23 PM	4.1	12.7	60	-0.01	-
9		12:53 PM	4.08	13.0	30	-0.02	-
10		1:23 PM	4.08	13.0	30	0	-
11		2:00 PM	4.08	13.0	37	0	-
12		2:30 PM	4.07	13.1	30	-0.01	-
13		3:00 PM	4.07	13.1	30	0	-
14		3:30 PM	4.07	13.1	30	0	-
15		4:00 PM	4.07	13.1	30	0	-
16		4:30 PM	4.07	13.1	30	0	-
17		5:00 PM	4.07	13.1	30	0	-
18		5:30 PM	4.07	13.1	30	0	-
19	8/15/2019	8:24 AM	4.12	12.5	894	0.05	1490

Comments:

Water standing in hole, excess water removed to establish 12 inches of water at start of test

ENGEO
Expect Excellence

Location 1-P2

Date 8/14/2019
Job # 16370.000.000
Job Name Goleta Train Station

Hole diameter (in) 5
Perf pipe diam (in) 4
Depth of hole (ft) 4
Gravel thickness ~2"

Saturated water level Surface
Saturation date & time 8/13/2019 12:20pm

Percolation Test Measurements

	Notes	Time	Depth to Water from Reference Point (ft)	Total Head (in)	Elapsed Time (min.)	Change in Water Level (ft)	Prec. Rate (m.p.i)
1	12" Starting head	9:20 AM	4.01	12			
2		9:47 AM	3.95	12.72	27	-0.06	-
3		10:05 AM	3.95	12.72	18	0	-
4		10:32 AM	3.95	12.72	27	0	-
5		10:52 AM	3.95	12.72	20	0	-
6		11:12 AM	3.96	12.6	20	0.01	-
7		11:32 AM	3.96	12.6	20	0	-
8		12:31 PM	3.94	12.84	59	-0.02	-
9		1:01 PM	3.95	12.72	30	0.01	-
10		1:31 PM	3.94	12.84	30	-0.01	-
11		2:04 PM	3.94	12.84	33	0	-
12		2:34 PM	3.95	12.72	30	0.01	-
13		3:04 PM	3.94	12.84	30	-0.01	-
14		3:34 PM	3.95	12.72	30	0.01	-
15		4:04 PM	3.94	12.84	30	-0.01	-
16		4:34 PM	3.94	12.84	30	0	-
17		5:04 PM	3.94	12.84	30	0	-
18		5:34 PM	3.95	12.72	30	0.01	-
19	8/15/2019	8:41 AM	4.03	11.76	907	0.08	945

Comments:

Water standing in hole, excess water removed to establish 12 inches of water at start of test

ENGEO
Expect Excellence

Location 1-P3

Date 8/14/2019
Job # 16370.000.000
Job Name Goleta Train Station

Hole diameter (in) 5
Perf pipe diam (in) 4
Depth of hole (ft) 4.35
Gravel thickness ~2"

Saturated water level Surface
Saturation date & time 8/13/2019 12:10pm

Percolation Test Measurements

	Notes	Time	Depth to Water from Reference Point (ft)	Total Head (in)	Elapsed Time (min.)	Change in Water Level (ft)	Prec. Rate (m.p.i)
1	12" Starting head	8:23 AM	4.02	12			
2		9:39 AM	4.02	12	76	0	-
3		10:00 AM	4.04	11.76	21	0.02	87
4		10:28 AM	4.06	11.52	28	0.02	117
5		10:48 AM	4.06	11.52	20	0	-
6		11:08 AM	4.07	11.4	20	0.01	167
7		11:28 AM	4.07	11.4	20	0	-
8		12:28 PM	4.09	11.16	60	0.02	250
9		12:58 PM	4.09	11.16	30	0	-
10		1:28 PM	4.09	11.16	30	0	-
11		2:02 PM	4.1	11.04	34	0.01	283
12		2:32 PM	4.11	10.92	30	0.01	250
13		3:02 PM	4.11	10.92	30	0	-
14		3:32 PM	4.12	10.8	30	0.01	250
15		4:02 PM	4.12	10.8	30	0	-
16		4:32 PM	4.13	10.68	30	0.01	250
17		5:02 PM	4.13	10.68	30	0	-
18		5:32 PM	4.14	10.56	30	0.01	250
19	8/15/2019	7:49 AM	4.3	8.64	857	0.16	446

Comments:

Water standing in hole, excess water removed to establish 12 inches of water at start of test

ENGEO
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Lot # 1-P4

Date 8/14/2019
Job # 16370.000.000
Job Name Goleta Train Station

Hole diameter (in) 7.5
Perf pipe diam (in) 4
Depth of hole (ft) 4.05
Gravel thickness ~2"

Saturated water level Surface
Saturation date & time 8/12/2019 4:00pm

Percolation Test Measurements

	Notes	Time	Depth to Water from Reference Point (ft)	Total Head (in)	Elapsed Time (min.)	Change in Water Level (ft)	Prec. Rate (m.p.i)
1	12" Starting head	9:34 AM	4.15	12			
2		9:54 AM	4.15	12	20	0	-
3		10:14 AM	4.17	11.76	20	0.02	83
4		10:37 AM	4.18	11.64	23	0.01	192
5		10:57 AM	4.19	11.52	20	0.01	167
6		11:17 AM	4.19	11.52	20	0	-
7		11:37 AM	4.2	11.4	20	0.01	167
8		12:34 PM	4.22	11.16	57	0.02	238
9		1:04 PM	4.24	10.92	30	0.02	125
10		1:34 PM	4.25	10.8	30	0.01	250
11		2:08 PM	4.27	10.56	34	0.02	142
12		2:38 PM	4.28	10.44	30	0.01	250
13		3:08 PM	4.28	10.44	30	0	-
14		3:38 PM	4.29	10.32	30	0.01	250
15		4:08 PM	4.3	10.2	30	0.01	250
16		4:38 PM	4.31	10.08	30	0.01	250
17		5:08 PM	4.32	9.96	30	0.01	250
18		5:38 PM	4.33	9.84	30	0.01	250
19	8/15/2019	9:13 AM	4.53	7.44	935	0.2	390

Comments:

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Appendix B

Notice of Preparation

NOTICE OF PREPARATION
OF A DRAFT ENVIRONMENTAL IMPACT REPORT
AND NOTICE OF SCOPING PRESENTATION

GOLETA TRAIN DEPOT PROJECT
27 S. La Patera Lane; APN 073-050-033

PURPOSE OF THIS NOTICE: This Notice of Preparation (NOP) is being issued by the City of Goleta for the proposed Goleta Train Depot Project located in the City of Goleta. The City is the lead agency for the project and will prepare an Environmental Impact Report (EIR) in accordance with the requirements of the California Environmental Quality Act (CEQA) and the CEQA implementation guidelines. This NOP is being circulated pursuant to California Resources Code Section 211153(a) and CEQA Guidelines Section 15082.

The City is requesting written feedback from the public, interested organizations, and responsible trustee agencies about the scope and content of the environmental information that will be addressed in the draft EIR. The EIR will address the environmental issues discussed in the project's initial study that can be found online on the City's website at: https://www.cityofgoleta.org/projects-programs/studies-and-other-projects/goleta-train-depot-project

A paper copy can be mailed upon written request (one copy per requestor). This offer is limited to just those projects for which there is a public comment period that runs during the Health Orders requiring members of the public to shelter in place or be safer at home due to COVID-19.

PROJECT LOCATION: The project would be located at the northern terminus of S. La Patera Lane on a 2.5-acre project site currently occupied by an industrial warehouse structure (former DRI building), a parking lot, outdoor storage area, and vehicle yard. The project is located near a number of regionally important areas, land uses, and transportation facilities, which include Old Town Goleta, University of California Santa Barbara (UCSB), the Santa Barbara Airport, US Hwy 101, the Union Pacific Rail Road (UPRR) train corridor, and the existing Goleta Rail Station.

GENERAL PLAN DESIGNATION: Business Park (I-BP)

ZONING: Business Park (BP)

BACKGROUND: The complete conceptual design of the depot station has not yet been completed. The City will seek community input on the design in upcoming community workshops. This notice and upcoming presentation are only related to environmental concerns and comments on the environmental analysis, which is based on a worst-case development footprint of a new train depot.

PROJECT DESCRIPTION: The proposed project would include demolition of an existing industrial warehouse structure (approximately 39,800 square feet) in order to develop a new train depot on the City-owned property adjacent to the existing Goleta Rail Station and Union Pacific right-of-way. The proposed new train depot is anticipated to be approximately 9,000 square feet. It would provide a permanent, enclosed, and safe structure for Amtrak passengers to use as they wait to board or after they disembark from

trains. The proposed train depot would be located in the northern portion of the project site adjacent to the railroad right-of-way.

The proposed new train depot would include a lobby, vending machines, a café area for riders to purchase beverages and food, restroom facilities, multiple indoor waiting areas, a meeting room, an on-site ticketing area, as well as adequate luggage and storage space. The project will also accommodate bicycle access and provide onsite bicycle storage options, as well as ample vehicle parking on an adjacent surface parking lot. A proposed "Kiss N' Ride" space in front of the building would allow for designated pick-up and drop-off locations for passengers.

EIR SCOPE OF ANALYSIS: The EIR is intended to provide decision-makers and the public with information that enables them to consider the environmental consequences of the proposed project. The EIR would identify potentially significant effects, cumulative impacts, and any feasible means of avoiding or reducing the effects through project redesign, the imposition of mitigation measures, or implantation of project alternatives. Based on the analysis contained in the Initial Study, the probable environmental effects to be analyzed in the EIR include but are not limited to the following:

Air Quality
Greenhouse Gas Emissions
Hazards and Hazardous Materials
Noise
Transportation
Tribal Cultural Resources
Utilities and Service Systems

The issues of Biological Resources, Cultural Resources, and Geology and Soil were determined to be less than significant with mitigation in the Initial Study. In addition, the following issues were determined to be less than significant and will not be addressed in the EIR:

Aesthetics
Agricultural Resources
Energy
Hydrology and Water Quality
Land Use and Planning
Mineral Resources
Population and Housing
Public Services
Recreation
Wildfire

Reponses received on this NOP may modify or add to the preliminary assessment of potential issues addressed in the EIR.

SCOPING PRESENTATION: In light of the COVID-19 pandemic and County stay-at-home orders, a virtual Scoping Presentation has been prepared and posted in the link below in place of an in-person Scoping Meeting to provide information and solicit comments from the public about the issues and content of the EIR. All interested parties are encouraged to watch the virtual Scoping Presentation, which will be available from May 25, 2020 to June 24, 2020 at the link below. Comments, feedback, or questions on the presentation can be addressed to Jaime Valdez, as detailed below under the Public Comment Period.

VIRTUAL PRESENTATION: **May 25 through June 24, 2020.**

PLACE https://www.cityofgoleta.org/projects-programs/studies-and-other-projects/goleta-train-depot-project

NOTICE OF PREPARATION PUBLIC COMMENT PERIOD: The public comment period begins on May 25, 2020 and ends on June 24, 2020 (30 days). All letters should be addressed to Jaime Valdez, Principal Project Manager, City of Goleta, 130 Cremona

Drive, Suite B, Goleta, CA 93117 or jvaldez@cityofgoleta.org. **All comments must be postmarked no later than June 24, 2020 at 5:30 P.M.** Please limit comments to environmental issues. Emails are the preferred method of comment during the COVID-19 pandemic and must be received by June 24, 2020 at 5:30 P.M.

NOTE: In compliance with the Americans with Disability Act, if you need special assistance to view or submit comments or questions on the Scoping Presentation, please contact the City Clerk's Office at (805) 961-7505.

Published: *Santa Barbara Independent, May 28, 2020 and Santa Barbara News Press, May 23, 2020*

STATE OF CALIFORNIA Gavin Newsom, Governor

NATIVE AMERICAN HERITAGE COMMISSION

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[Vacant]

EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

May 27, 2020

CITY OF GOLETA
CALIFORNIA
JUN 04 2020
RECEIVED

Jaime Valdez
City of Goleta
130 Cremona Drive, Suite B
Goleta, CA 93117

Re: 2020050499, Goleta Train Depot Project, Santa Barbara County

Dear Mr. Valdez:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

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

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

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

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

a. A brief description of the project.

b. The lead agency contact information.

c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).

d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

a. Alternatives to the project.

b. Recommended mitigation measures.

c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

a. Type of environmental review necessary.

b. Significance of the tribal cultural resources.

c. Significance of the project's impacts on tribal cultural resources.

d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

a. Whether the proposed project has a significant impact on an identified tribal cultural resource.

b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

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

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

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

- **i.** Planning and construction to avoid the resources and protect the cultural and natural context.
- **ii.** Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

- **i.** Protecting the cultural character and integrity of the resource.
- **ii.** Protecting the traditional use of the resource.
- **iii.** Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

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

SB 18

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

Some of SB 18's provisions include:

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

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

NAHC Recommendations for Cultural Resources Assessments

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

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

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Nancy.Gonzalez-Lopez@nahc.ca.gov.

Sincerely,



Nancy Gonzalez-Lopez
Staff Services Analyst

cc: State Clearinghouse

DEPARTMENT OF TRANSPORTATION
CALTRANS DISTRICT 5
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3101
FAX (805) 549-3329
TTY 711
www.dot.ca.gov/dist05/

Making Conservation a California Way of Life.

June 24, 2020

SB-101-23.16
SCH # 2020050499

Jaime Valdez, Planner
City of Goleta
130 Cremonda Drive, Suite B
Goleta, CA 93117

COMMENTS FOR THE NOTICE OF PREPARATION OF THE DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE GOLETA TRAIN DEPOT PROJECT

Dear Mr. Valdez:

The California Department of Transportation (Caltrans) thanks you for the opportunity to review the Notice of Preparation of the Draft Environmental Impact Report (DEIR) for the Goleta Train Depot Project and offers the following comments:

Caltrans supports this project which will develop a new train depot providing a safe and comfortable structure for arriving and departing Amtrak passengers. The plan addresses the Caltrans Rail Plan goals and further it helps to reduce vehicle miles traveled (VMT) by providing an alternative to vehicle travel. Additionally, the planned onsite bicycle and luggage storage will help accommodate bicyclists and pedestrians as they explore the area. We encourage the City to integrate connectivity to the near-by airport and promote the use of local transit.

Caltrans supports local planning efforts that are consistent with State planning priorities intended to promote equity, strengthen the economy, protect the environment, and promote public health and safety. We accomplish this by working with local jurisdictions to achieve a shared vision of how the transportation system should and can accommodate inter-regional and local travel.

Projects that support smart growth principles which include improvements to pedestrian, bicycle, and transit infrastructure (or other key Transportation Demand Strategies) are supported by Caltrans and are consistent with our mission, vision, and goals.

We look forward to continued coordination with the City on this project. If you have any questions, please contact me at (805) 835-6555 or ingrid.mcroberts@dot.ca.gov.

Sincerely,

Ingrid McRoberts

Ingrid McRoberts
Development Review Coordinator
District 5, LD-IGR South Branch

SANTA YNEZ BAND OF CHUMASH INDIANS

P.O. BOX 517 · SANTA YNEZ · CA · 93460

Tel: 805.688.7997 · Fax: 805.686.9578

www.santaynezchumash.org

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GARY PACE, COMMITTEE MEMBER

June 22, 2020

Michelle Greene, City Manager
Jaime Valdez, Principal Project Manager
City of Goleta
130 Cremona, Suite B, Goleta, CA 93117
mgreene@cityofgoleta.org

RE: CEQA Public Resources Code section 21080.3, subd. (b) ("AB 52") Request for Formal Notification of Proposed Projects Within the Chumash Tribe's Geographic Area of Traditional and Cultural Affiliation

Dear Ms. Greene and Ms. Valdez:

In accordance with Public Resources Code Section 21080.3.1, subd. (b), the Santa Ynez Band of Chumash Indians ("Chumash"), requests formal notice of and information on proposed projects for which your agency will serve as a lead agency under the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq., in the Chumash traditionally and culturally affiliated geographic area from Paso Robles south to Malibu and inland to Bakersfield. We also request, without limitation, AB 52 consultation as to GOLETA TRAIN DEPOT PROJECT 27 S. La Patera Lane; APN 073-050-033.

Pursuant to Public Resources Code section 21080.3.1, subd. (b), and until further notice, we hereby designate the following person as the tribe's lead contact person for purposes of receiving notices of proposed projects from your agency:

Kenneth Kahn, Tribal Chairman
P.O. Box 517
Santa Ynez, CA 93460
Phone: 805-688-7997 / Fax: 805-686-9578
Email: Kkeever@sybmi.org
CC: Sam Cohen, Government Affairs and Legal Officer, scohen@sybmi.org, cell: 805-245-9083

We request that all notices be sent via certified U.S. Mail with return receipt and by email. Following receipt and review of the information your agency provides, within the 30-day period proscribed by Public Resources Code section 21080.3.1, subd. (d), the Chumash may request consultation, as defined by Public Resources Code section 21080.3.1, subd. (b), pursuant to Public Resources Code section 21080.3.2 to mitigate any project impacts a specific project may cause to tribal cultural resources.

If you have any questions or need additional information, please contact me or Sam Cohen, Government Affairs and Legal Officer, listed above.

Sincerely,

Kenneth Kahn,
Tribal Chairman

CC: Christina Snider, NAHC Executive Director, Christina.snider@nahc.ca.gov

Ksen~Sku~Mu
Frank Arredondo ~Chumash MLD
Po Box 161
Santa Barbara Ca, 93102

June 19, 2020

Jaime Valdez, Principal Project Manager
City of Goleta
130 Cremona, Suite B, Goleta, CA 93117

Re: GOLETA TRAIN DEPOT PROJECT 27 S. La Patera Lane; APN 073-050-033

Respectfully, Mr. Valdez,

Thank you for the opportunity to comment on the above referenced project. My name is Frank Arredondo. I am of Chumash decent. I am a member of the Native American Heritage Commission Most Likely Descendants List (MLD) for the Chumash Territory and listed on the Native American Contact/Consultants list for Santa Barbara County. I have been working in Cultural Resource management for over 14 yrs. now. My comments today are of my own.

Being of Native American descendant, from the Chumash territory, I have a strong vested interest in the activities that take place in my ancestral homeland. Over the years I have provided comments on several projects in the surrounding areas that have/or have the potential to impact cultural resources. I've been an advocate for the preservation of those Cultural Resources as well as placing an emphasis on local governments adhering to policies and procedures and laws that have been established by all forms of Government. To this end, with my education and vast experience I've acquired under the subject, I have become a bit of an expert. I hope that you will take my comments seriously.

This project is located in an area that I have worked in a great detail, over the past 14 years. I hope that you find my comments relevant and pertinent and assist in the direction going forward.

I thank you for taking the time to review my comments.

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Introduction

This is a review of the Cultural resources Assessment report that was provided for public review by the City of Goleta in proposition of the Goleta Train Depot project. This review is contrasted against the Secretary of the Interior Standards of Archaeological Documentation. (https://www.nps.gov/history/local-law/arch_stnds_0.htm)

The practice of CRM archaeology in California is lightly regulated through local agency policies and ordinances. The result has produced two types of studies to address the potential to impact Cultural Resources under CEQA. Studies that are deficient under CEQA and studies that are held to high standards found under Federal laws are often the two types that are produced in CRM Archaeology.

Typically, a study that is deficient will have inadequate documentation carried out by unqualified individuals for such criteria of work. Pre-fieldwork plans, field survey coverage that is inadequate, partite study's being carried out unnecessarily and not vetted for errors.

Inadequate consultation with Native American Tribes, other descendant groups and stakeholders not frequently consulted, or inadequately consulted during all phases of archaeological work often take place in deficient CRM-archaeology reports.

Often times this deficiency is allowed to be carried out when it is overseen by unqualified public officials who do not have the appropriate training to recognize deficient archaeological practices. These deficiencies tend to show up in the documents used to support the CEQA-mandated requirements for studies. They cover fieldwork, research, reporting and curation.

The public officials often lack the appropriate training especially when a local government agency has failed to implement ordinances or regulations that they are required to so that they can be incompliance with Federal and State laws that have passed.

Studies carried out to address CRM-archaeology result in the characterization of a region's cultural setting. The technique and level of effort that is made directly relate to the management needs and preservation goals. The stronger the effort put into the archaeological reporting process increases the potential for preservation of resources.

This report addresses several issues found in the City of Goleta review of Cultural Resources. It has been contrasted against the high standards found under federal law and has proven to be very deficient in its review of resources of the area. Not only the report but the activities or lack of qualified activities by the City of Goleta to adhere to State and Federal laws is a major part of this deficiency. A primary failing of the City of Goleta is the lack of ordinances in its review of cultural resources for this project. Several recommendations for improvement are provided throughout this document in the hope that they will be adopted.

AB 52, Initiation of Tribal Consultation.

"The Trigger"

Agency responsibility to notice Tribes when they embark on a project.

The City of Goleta was required to initiate AB52 consultation the moment that CEQA requirements applied to Government actions. Here is a breakdown of the events that took place before proper notice was issued.

In 2018 the Santa Barbara County Association of Governments (SBCAG) received a grant for the development of a new train station. It required that a Station Area Master Plan (SAMP) be carried out first. In January of 2019 the City of Goleta approved an agreement with Rincon Consulting for the preparation of the SAMP.

In December Rincon Consultants carry out a Cultural Resource Assessment for the City of Goleta. The first date listed in this document is December 10th, 2019 where Rincon Consultants submit a Sacred Lands File request with the NAHC, the next day December 11th a field survey and then on December 12th a records search request with the Central Coast Information Center (CCIC).

On February 4th 2020 the SAMP was adopted by the City council. Staff believed this was the time to initiate Tribal Consultation and on February 8th requested the official Tribal Consultation list from the NAHC. This list was received on February 11th and notices to Tribes were sent out on February 13th.

The rational for initiating Tribal consultation in February 2020 was due to the belief that this proposal did not come with "a land use entitlement application". In addition, the City of Goleta felt for this proposal to fit the criteria of a "project", needed to be based on the support of the "goals, objectives, and desired amenities/features", and that would be included in the SAMP. This is incorrect when the proposal is Government "initiated".

Government-initiated proposals and the CEQA related requirements are embedded in numerous regulations and laws. This covers the activities and projects:

- 14 CCR § 15002(b)(1)-(2). CEQA requirements apply to government action including "activities directly undertaken by a governmental agency, activities financed in whole or in part by a governmental agency…"
- 14 CCR § 15378 § 15378. Project.(a) "Project" means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and that is any of the following:(1) An activity directly undertaken by any public agency including but not limited to public works construction and related activities clearing or grading of land, improvements to existing public structures, enactment and amendment of zoning ordinances, and the adoption and amendment of local General Plans or elements thereof pursuant to Government Code Sections 65100-65700.

Assembly Bill 52 (Chapter 532, Statutes 2014) Tribal Cultural Resources, aka, "AB52".

Currently the way that AB52 is written it does not address "Government Initiated" activities directly it requires local governments to "build on" the already SB-18 Tribal Consultation and notification practices and ensure that local Governments comply with the requirements of both statues.

AB52 TEXT – Applicability to both statues & notification

- Since 2004, cities and counties have had to consult with California Native American Tribes before adoption or amendment of a general plan, specific plan or designation of open space. (Gov. Code, § 65352.4., "Senate Bill 18" (Burton, Chapter 905, Statutes of2004).) The Tribal Consultation Guidelines explain those requirements in detail. The new requirements in the Public Resources Code do not change those ongoing responsibilities. In instances in which the requirements of both the Government Code and the Public Resources Code apply to a project, while there may be substantial overlap, the lead agency must ensure that it complies with the requirements of both statutes.
    - PRC 21080.3.1.(d) Within 14 days a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the Tribes listed on the NAHC contact list.

Senate Bill No. 18 CHAPTER 905 Burton. Traditional tribal cultural places. Aka "SB-18 TRIBAL CONSULTATION GUIDELINES"

What Triggers Consultation?

- Government Code §65352.3 requires local governments to consult with tribes prior to the adoption or amendment of a general plan or specific plan proposed on or after March l, 2005. Local governments should consider the following when determining whether a general plan or specific plan adoption or amendment is subject to notice and consultation requirements:
    - In the case of a general plan or specific plan amendment initiated by the local government, any proposal introduced for study in a public forum on or after March 1, 2005 is subject to Government Code §65352.3. A legislative body must take certain actions to initiate, or propose, a general plan or general plan amendment. These actions must be taken in a duly noticed public meeting, and may include, but are not limited to, any of the following: **appropriation of funds, adoption of a work program, engaging the services of a consultant, or directing the planning staff to begin research on the activity.**

Admittedly the section cited above is based on General Plan or specific plan amendments but they clearly define what "actions" are triggers to initiate consultation when a proposal is Government initiated.

Based on the information obtained till now the best estimate of when "activities" were undertaken by the City of Goleta that would trigger "initiation" can be tied to the "appropriation of funds, adoption of a work program, engaging the services of a consultant, or directing the planning staff to begin research on the activity."

. These Six (6) activities constitute the process of project development:

1.	Government activity financed in whole,	(Grant 2018)
2.	A decision to undertake a SAMP,	(2018 -2019?)
3.	Whole of an action,	(The concept SAMP to Train Depot)
4.	Work program,	(Planning & Organizing)
5.	Engaging the services of a consultant, and	(January 2019)
6.	Directing staff to begin research on the SAMP.	(2018/2019?)

The only certain date that can be established at this point is January 2019 when the City Council took action to approve an agreement for a consultant to be contracted, Rincon Consultants was contracted to carry out the preparation of the SAMP. This is the "*Trigger*" to initiate AB 52 Consultation. The City of Goleta delayed initiation notifications for over 13 months.

With regards to a Government initiated activity CEQA, AB52 SB-18 does not require the local government to have "goals, objectives and desired amenities/features" in place before they decide to initiate tribal consultation. Local Government is required to create ordinances to address the preservation of cultural resources. This brings up a most disturbing situation with this project and the local government inability to carry out the laws that have been passed to preserve cultural resources.

As noted in the Rincon Consultants Cultural Resource Assessment report section - 2.5 Local Regulations, the City of Goleta does not currently have "historic preservation/historic resources ordinance in place".

If the City of Goleta had included ordinances to implement the requirements of "Senate Bill 18" (Burton, Chapter 905, Statutes of 2004) they would have been up to date on the use of the Tribal Consultation Guidelines and the process for Government Initiated proposals.

COMMENTS AND ISSUES RAISED

"The Report"

This covers the key points in the Cultural Assessment Report that are in contention. Comments are indicated with the ■ symbol. References that support comments are listed as "See Section…"

Executive Summary – Goal is to Identify and Evaluate

- Purpose and Scope
  - The Cultural Resource Assessment states "This study includes…Assembly Bill 52 (AB 52) consultation,"
    - A Cultural Resource Assessments prepared by a consultant, does not have the responsibility or authority to carry out the requirements in this bill. It is strictly for Government to Government activities between Tribes and Local government. Inclusion of this bill in any reference to reports should not be included. Otherwise it makes an implication that Cultural Resource Assessments carried out by a contractor have something to do with AB 52. (See Section 2. *"Needed Data" & Section 3. "Other Individuals")*
- Dates of investigation
  - December 10 NAHC contacted & request for SFL & AB52 list
    - A consultant conducting a review of resources in a specified area is not limited to outreach to any and all "interested parties", an effective outreach will include multiple sources and many parties for information about a resource. Doing the due diligence in background research is always a good thing. (See Section 3. "*Other Individuals*")
  - December 11 Field survey conducted by Historian
    - Field survey conducted before records search. This is a practice that leads to negative finds, improper characterization of an area. Does not adhere to the best management practices of the Secretary of the Interior guidelines to proper production of the Archaeological record.
    - Field survey not carried out by a qualified Archaeologist
    - No archaeological survey carried out as stated in Rincon report
    - (See Section 1. "The Standards")
  - December 12 Archaeological records search requested
    - All records search and Background work should have been conducted first in order to follow the Secretary of the Interior' Guidelines for Archaeological Documentation. (See Section 1. "The Standards")
  - December 19 letter sent to contacts on AB52 list.
    - A consultant conducting a review of resources in a specified area is not limited to outreach to any and all "interested parties", an effective outreach will include multiple sources and many parties for information about a resource. Doing the due diligence in background research is always a good thing.

- Tribes understand that Government to Government consultation is not about responding to a consultant. A consultant does not have the authority that a local government agency has. To engage in any form of consultation would mislead the consultant, the local government that any form of consultation is acceptable. Consultation is now defined legally under public Resources Code § 21080.3. I (a) and with a cross-reference to Government Code § 65352.3, § 65352.4, Government Code § 65562.5, which applies when local governments consult with tribes. Under CEQA, the only other time consultation is used is between a Responsible and Trustee Agencies(PRC Sections 21080.3) Consultants contracted to carry out any cultural resources review should not use the word "consult" or "consultation" because they do not retain any legal authority to carry out the current defined meaning under CEQA or under the current laws relating to Tribes. They should use "confer" or something related to denote the outreach to "interested parties". A cultural assessment report falls under the General direction of the Secretary of the Interiors guidelines to archaeological documents, and those standards reply on the Section 106 process for conducting archaeological review.
- (See Section 3. "Other Individuals")

- Summary of Findings
  - "Background research identified 91 cultural resources within 0.5-mile search radius"
    - Actual count of the listings in "Table 1 Previously recorded Cultural Resources within 0.5-mile radius of the project site" is 68. The author has increased the amount of reports by 23 reports not listed in Table 1. (See Section 4. "Data")
  - "No reply from Native American Contacts specific to SLF results"
    - As stated above- a consultant should not only seek information from Native American contacts specific to SFL search results. They should be doing outreach to all "Interested parties". (See Section 3. "Other Individuals")
  - "Ethnographic settlement patterns"
    - No descriptive information is presented, no time period referenced is presented. This is a vague statement and should not be the bases of a summary finding unless it is defined. Unless this statement is an argument that the Chumash only settled on the south sides of a hill side and not a norther side where the train depot is proposed? (See Section 1. "The Standards")
  - "Existing level of ground disturbance"
    - Most of the parcel is paved with blacktop parking lot. Construction standards for parking lot pavement thickness is 6" below the surface with 4" inches of aggregate base. Overall surface disturbance is likely to be 10" at most. In this region cultural resources have been known to be found at depths 18" below the surface and up to 4feet below. Recently a burial ground was located 3 feet below a paved roadway and was dated to be over

6 thousand years old. The only meaningful ground disturbance observed for this project is the area of the loading docks which would have required extended depths to create. (See Section 1. "The Standards")

- "Results of records search"
  - Results of the records search is flawed. (See Section 4. "Data")
- "Pedestrian survey results"
  - Survey was not conducted by an archaeologist (Section 5.1-Methods, page 40),
  - Rincon admits no archaeological report carried out. (Section 5.1-Methods, page 40)
  - Survey done before background or records search was done- Does not adhere to the best management practices of the Secretary of the Interior guidelines to proper production of the Archaeological record.
  - (See Section 1. "The Standards")
- "Low potential for subsurface archaeological resources"
  - Basis for this conclusion is flawed due to previous steps and standards not followed. Approximately 98% of the property is covered and according to the best management practices of the Secretary of the Interior guidelines to proper production of the Archaeological record. Shovel test units should have been conducted to characterize the subsurface soil context. (See Section 1. "The Standards")
- Recommends mitigation measure
  - The report never states what the mitigation measure is they are suggesting.
- "The project is also required to adhere to regulations regarding the unanticipated discovery of human remains, detailed below."
  - This statement should not be included in this section or paragraph. It is misleading being so close to the CEQA guidelines 15064.5. to the uninformed this is misleading.
- Unanticipated Discovery of Cultural Resources
  - This section is not a Mitigation measure but a protocol required by law to follow in the event of a discovery. This section should be given its own section and not associated with mitigation measure cited just before this section.

1.Introduction

- "This assessment was prepared in compliance with the requirements of the California Environmental Quality Act (CEQA) and includes…consultation with Native American groups…"
  - Contractors do not engage in the legal term under CEQA of "consultation". This should not be a part of the assessment report as stated above. Appropriate terms would be conferral with interested parties including Native Americans.
  - (See Section 3. "Other Individuals")

1.2 Project Description

- Offsite construction activities and improvements
  - The survey does not address these impacts or makes any discussion about it.
- Restroom, showers, sewage lines
  - None of these are discussed relative to the subsurface impacts they will cause and the potential for cultural resources.
- Turnaround location
  - No research material is provided that addresses the location of this work. Relevant field studies that indicate subsurface conditions in all potential locations should be used to determine the extent of resources.
- Roadway and Sidewalk improvements
  - Previous studies 1,065 feet (0.20) required these types of work be monitored for the potential of subsurface resources.

2.4 Assembly Bill 52

- The inclusion of this section is misleading. As required by ARMR, reports need to include the laws that apply to the project. If the rational was to make this section of the report follow those directives then it would seem more relevant to include laws and regulations that apply to this report and those activities that this consulting firm is associated with. AB 52 has nothing to do with the creation of a cultural assessment report. (See Section 2. "Needed Data")

2.4.1 Pertinent Federal and State laws

- This section is completely missing. (See Section 2. "Needed Data")

2.5 Local Regulations

- "The City of Goleta does not currently have historic preservation/historic resources ordinances in place."
  - In 2004, SB-18 was passed into law and its effective date was March 5th 2005. Since then the City of Goleta was required to comply with the new law. Local government typically create ordinances in order to assure that staff make this part of the review and verification of being followed according to the law. 14years has passed and the City of Goleta has failed to pass ordinances that address cultural resources which fall under prehistoric/historic categories.

4. Background Research. The purpose was to identify and evaluate.

4.1 California Historical Resources Information System

- Previous Studies
  - "CCIC records search identified 124 previously conducted cultural resource studies with-in a 0.5-mile radius." (See Section 4. "Data" for all below)
    - That statement is not correct. The correct number based on review of CCIC "Report List", "Resources List" provided in Appendix A, is 141 previously

conducted cultural resource studies. A number count was done. (covered in extensive detail later in this report.)

- Using the CCIC "Resource List" which identify the reports associated with each "primary number" recorded site number. A total of 77 studies were counted. 9 more studies than the 68 studies listed in the Appendix A, "table 1 Previous Cultural Resources Studies with-in 0.5-mile radius of the project site" location. (covered in extensive detail later in this report.) This is an error in the Rincon report calculation of Table 1.
- Of the 77 reports identified, 17 reports listed on the "Resource list" are not listed in the "Table 1 Previous Cultural Resources Studies in 0.5-Mile radius." These 17 reports have no description and do not provide any information about what the type of study was conducted, just a SR number. (1 exception is a report SR-01082 which does show up in Table 1 with a description of the type of study work but this report does not show up in the "Report List". This report is associated with resource CA-SBa-57, it does appear as a report associated and listed in the "Resources List.") appears to be a CCIC database error.
    - This section provides the corrected process of identifying resources and studies associated with those resources. A review of the 14 recorded resources and previous studies associated with them within the 0.5-mile radius was done and a new relevant list brought the number of recorded resources to 8.(listed below) The new list of previous studies associated with the 8 resources was compared to the "Reports List" and "Resource List", this provided a grand total of 80 studies relative to the 8 Resources. 21 of those studies are missing from the "Resource List" and Table 1 but do appear on the "Report List". This leaves 59 studies with some description to use as a starting point to characterize the cultural setting of the area.
    - To further narrow down which studies to use several key indicators were used. The study description in Appendix A "Table 1 Previous Cultural Resources Studies within 0.5-mile radius of the project site", "the Report List" title description, the distance from project location
    - 30 studies out of the 59 studies are relevant for use to characterize the area. Ironically 16 of these studies are approximately 55 feet to 1,500 feet from the project site.
    - These 30 studies focus on reports that involve the exposure of subsurface profiles. They include Monitoring reports, Phase II, III reports. All involve the witnessing of subsurface soils. Most cultural resources of the area are often found at about 18" below the surface. They can be thin layers or thick layers expanding as much as 3 to 5 ft thick based on duration of habitation. This approach is contrary to use of phase 1 studies and work located in the utility ROW listed by Rincon Consultants.
    - The importance of reviewing reports that are close to the project site help to provide a glimpse into the character of the area. More importantly using reports that provide information of the subsurface soils help in guiding researcher as to the type of habitation sites in the area. This in turn can influence the review of the project site location. (See Section 1. "The Standards")

- "Ten studies include portions the project site and are summarized below"
  - These ten studies are poor examples used to characterize the area and the survey reports that have taken place. Other studies that include subsurface activities should have been used to characterize the are not surface surveys or where the majority of wok is located in a utility ROW. It is misleading when a recorded site boundary is less than 400 feet away. Further more relevant studies should have been used. (See Section 4. "Data")

- Previously Recorded Resources
  - "The CCIC records search identified 68 previously recorded cultural resources with-in a 0.5-mile radius of the project site, none of which were within or adjacent to the project site (Table1)."
    - As stated previously 14 resources were identified to be within 0.5-mile radius. After a closer review of the 0.5-mile radius 8 resources were more suitable and offer a relative example of characterization of the area. These 8 resources are: CA-SBA- 0056, CA-SBa- 0057, CA-SBa-58, CA-SBa-0059, CA-SBa- 002391, CA-Sba-01703, CA-SBa-0062, CA-SBa-1576. (See Section 4. "Data")

4.3 Native American Outreach

- As stated previously, Rincon consultants had no limitation in using just the contact list obtained from the NAHC. They are not part of the AB52 process and have no requirement to provide any reference to that lay in this type of report. Of all the parties involved archaeologist goal is to adhere to the goals listed under the National Historic Preservation Act, in conducting outreach to sources of information that will assist in identifying potential resources as well as all parties of interest. In this area, the outreach they conducted was a failure. (See Section 2. "Needed Data" & Section 3. "Other Individuals")

4.4 Archival Research Methods

- This activity was done after the field survey. This practice leads to limited skewed results when a surveyor goes out with no reference to what is known about the area.
- Historical review included the development and areas surrounding the APE, but why is this same methodology not applied to archaeological site?
- (See Section 1. "The Standards")

5.1 Methods

- Survey method was carried out before the records search thus limiting the surveyor scope of review.
- Survey not conducted by archaeologist
- Rincon report states that No Archaeological sure was done.
- (See Section 1. "The Standards")

5.2 Results

- Property Description (See Section 1. "The Standards" for all)
    - The property description is entirely focused on a historical building and its structure attributes. No focus on the type of foundation and depth potential of subsurface disturbance activities.
  - Concrete foundation
    - The building is only stated as having a concrete foundation. No detailed information from the survey as to the possible depth of the concrete slab. 2inch, to 8 inches…etc. given the structure that is described it appears to be a low-level load bearing building that wouldn't necessitate a very thick concrete slab to be used. This becomes an important factor when discussing subsurface resources at 18 inches below the surface.
  - Concrete loading dock
    - This loading dock would have required depths of soil disturbance that would meet or exceed 4 feet below the surface. This is only on one side of the property.
    - A photo of the area elevation would assist in determining the amount of disturbance through development of the hill and the surrounding area has taken place as opposed to viewing the structure asthenic designs. Most development projects tend to use the landscape as it than trying to reshape and reform it to meet its development project.
    - The parking lot was not discussed and the amount of subsurface potential was not mentioned.
- Development History
  - Developed in 1966
    - No further development on this parcel, no CEQA review in the original development and no CEQA review since. For this reason alone, subsurface investigations should have taken place.
    - The train track platform is never discussed in any of this report. No information of when it was constructed and what type of CEQA review took place.

6. Findings and Recommendations

- "The cultural records search…identified 70 cultural resources (14 prehistoric-era archaeological sites…)"
    - The reference is incorrect again. 68 cultural resources were identified.
    - 14 are prehistoric sites, 1 historic era archaeological site, 53 historic era buildings and structures.
    - Rincon recommends mitigation but never states what that mitigation is.
  - (See Section 4. "*Data*")

1. Standards for Archaeological Documentation,
"The Standards"

This section is provided as a baseline of the type of study that should be produced to meet these standards. Using this information, a reader should then review the Cultural Assessment under this scope of standards. The City of Goleta and all archaeological consultants should adhere and follow this approach when addressing archaeological survey reports. Comments are made along this description to show how the current Rincon Cultural Assessment report and the City of Goleta fail to meet this standard.

Secretary of the Interior's Guidelines for Archeological Documentation, (https://www.nps.gov/history/local-law/arch_stnds_7.htm) provides guidance and Standards for Archeological Documentation and include specific technical information. Archeological documentation is a series of actions applied to properties of archeological interest. Documentation of such properties may occur at any or all levels of planning, identification, evaluation or treatment. The nature and level of documentation is dictated by each specific set of circumstances.

Archeological documentation consists of activities such as archival research, observation and recording of above-ground remains, and observation (directly, through excavation, or indirectly, through remote sensing) of below-ground remains. Archeological documentation is employed for the purpose of gathering information on individual properties or groups of properties. It is guided by a framework of objectives and methods derived from the planning process, and makes use of previous planning decisions, such as those on evaluation of significance. Archeological documentation comes with several standards to help accomplish this goal. Standards I to IV are covered in abbreviated form here.

Standards I to IV

Standard I, requires documentation follow the objectives that are identified by in the planning process by local governments. The planning needs are articulated in a statement of objectives to be accomplished by the archeological documentation activities. The statement of objectives guides the selection of methods and techniques of study and provides a comparative framework for evaluating and deciding the relative efficiency of alternatives. Satisfactory documentation involves the use of archeological and historical sources, as well as those of other disciplines. This is found in the ordinances created to address cultural resources. Without this in place the direction of Archaeological Documentation is at risk of failure.

- COMMENT - *The City of Goleta does not have any ordinances in place that lay out the objectives for archaeological documentation. Even though they have been legally required to implement SB-18, Tribal Consultation Guidelines Since 2005 they have yet failed to incorporate any ordinances to carry out this law for 14 years. The same is true with regards to AB52 passed in 2015.*

Standard II. The methods and techniques chosen for archeological documentation should be ones that are the most effective, least destructive, most efficient and economical means of obtaining

the needed information. Methods and techniques should be selected so that the results may be verified, if necessary.

- COMMENT - *These methods are currently left to the discretion of the contracted archaeologist to decide on which are most effective. No apparent method or technique was used in the production of the Cultural Assessment report for this project.*

Standard III. The Results of Archeological Documentation are Assessed Against the Statement of Objectives and Integrated into the Planning Process. One product of archeological documentation is the recovered data; another is the information gathered about the usefulness of the statement of objectives itself. The recovered data are assessed against the objectives to determine how they meet the specified planning needs.

- COMMENT - *Without established Objectives created by the City of Goleta ordinances, the results can never be assessed. No viable data is provided in the Cultural Assessment*

Standard IV. The Results of Archeological Documentation are Reported and Made Available to the Public. Results must be accessible to a broad range of users including appropriate agencies, the professional community and the general public. Results should be communicated in reports that summarize the objectives, methods, techniques and results of the documentation activity, and identify the repository of the materials and information so that additional detailed information can be obtained, if necessary. The public may also benefit from the knowledge obtained from archeological documentation through pamphlets, brochures, leaflets, displays and exhibits, or by slide, film or multimedia productions. The goal of disseminating information must be balanced, however, with the need to protect sensitive information whose disclosure might result in damage to properties.

- COMMENT - *The City of Goleta has only started to deploy reports like this one for public review and hopefully they continue this practice. This Standard has been met.*

Archeological Documentation Objectives

The term "archeological documentation" is used here to refer specifically to any operation that is performed using archeological techniques as a means to obtain and record evidence about past human activity that is of importance to documenting history and prehistory in the United States. Historic and prehistoric properties may be important for the data they contain, or because of their association with important persons, events, or processes, or because they represent architectural or artistic values, or for other reasons. Archeological documentation may be an appropriate option for application not only to archeological properties, but to aboveground structures as well, and may be used in collaboration with a wide range of other treatment activities.

If a property contains artifacts, features, and other materials that can be studied using archeological techniques, then archeological documentation may be selected to achieve particular goals of the planning process, within the overall goals and priorities established by the planning process, particular methods of investigation are chosen that best suit the types of study to be performed.

- COMMENT - *Currently this is left to the decision of the contracted Archaeologist. No Archaeological survey was conducted*

Documentation Methods

Archaeological Documentation involves several elements of activities that assist in the production of meaningful recommendations to support an operation using archeological techniques. In this review just the portions of a Phase 1 study documentation method are discussed since it is the only portion that is applicable to the current project report. They are broken down as follows:

STUDIES: Phase I – Inventory of Cultural Resources

- A Background Review Study
- A Records/Background search
- A Field Survey
  - A FIELD SURVEY (Techniques):
    - "Reconnaissance" and
    - "Intensive".
  - FIELD SURVEY (Methods):
    - Pedestrian,
    - STP's

RECOMMENDATIONS

STUDIES: Phase I – Inventory of Cultural Resources

Documentation methods fall under Three (3) Phases of studies. They are further defined though the implementation of Environmental Quality Act (CEQA). There are three studies phases of concern to the developer, landowner, and County or City Planning Agencies Only Phase 1 is covered here:

1. Phase I – Inventory of Cultural Resources
2. Phase II – Evaluation of Cultural Resources
3. Phase III – Treatment of Impacted, Significant Cultural Resources.

- COMMENT - *All of these phases should be implemented by a qualified professional archaeologist.*

Phase I – Inventory of Cultural Resources

This phase generally involves three steps:

- A Background Review Study & Records/Background search
- A field Survey
- A written report

In addition, conferral with local California Native Americans and "interested parties" is highly recommended.

Background Review Study:

Archeological documentation usually is preceded by, or integrated with historical research (i.e. that intensive background information gathering including identification of previous archeological work and; gathering relevant data on geology, botany, urban geography and other related disciplines; archival research; informant interviews, or recording of oral tradition, etc.)

Depending on the goals of the archeological documentation, the background archeological research may exceed the level of research accomplished for development of the relevant prehistoric contexts or for identification and evaluation, and focuses on the unique aspects of the property to be treated. This assists in directing the investigation and locates a broader base of information than that contained in the property itself for response to the documentation goals. This activity is particularly important for archeological resources where information sources other than the property itself may be critical to preserving the significant aspects of the property. (See the Secretary of the Interior's Standards and Guidelines for Historical Documentation for discussion of associated research activities.)

A Background Review study of archaeological documents may yield information on the specific locations of particular archaeological sites, but this is not its most important purpose. The major function of background research is to allow the development of expectations about:

a. What kinds of sites may be expected in the study area?
b. What environmental, social, and historical factors may have influenced their distribution, and hence in what sorts of locations can they be-expected?
c. What they will look like if they are found?

d. What cultural processes and patterns do they reflect, and hence what is their possible significance for research?
e. What other social or cultural values may be attributed to them above and beyond their research value?
f. What special kinds of expertise, or special methods, maybe required to locate, identify and evaluate them?

A basic understanding of the available ethnographic and archaeological literature on the area is vital to the success of the survey. Background documentary research is an essential part of any survey program, but unless it reveals that the area has been subjected to highly intensive archaeological survey, or that archaeological sites could not exist there, it cannot eliminate the need for some type of inspection in the field. (The Archaeological Survey: Methods and Uses, by Thomas F. King 1978)

Records/Background Search

A subset of a Background review is an archaeological Records search (aka, Records/Background search) This process is much more narrowed than the Background review and primarily focuses on the archaeological documents that may yield information on the specific locations of particular archaeological sites in the project area.

This records/background search will minimally determine the following:

- Whether a part or all of the project area has been previously surveyed for cultural resources;
- Whether any known cultural resources have already been recorded on or adjacent to the project area;
- Whether the probability is low, moderate, or high that cultural resources are located within the project area; and,
- Whether a field survey is required to determine whether previously unrecorded cultural resources are present.
- Identify Area of Potential Effect (APE).

Records/Background research is a necessary component to fieldwork and allows the researcher to form a basic understanding of the environmental, geological and cultural history of the region and project area. Preliminary records/background searches also serve as the basis for developing archaeological and historical contexts for the region under study. A thorough knowledge of previously recorded cultural resources and environmental characteristics of a region or project area allows the researcher to formulate predictions for the types of archaeological sites that might be encountered during fieldwork. Through a synthesis of this information, A Background Review study & Records/Background search aid in strategies for conducting fieldwork and how they may be developed and implemented. All consultants conducting archaeological investigations in review and compliance-related cultural resource inventory projects must conduct a Background Review study & Records/Background search PRIOR to initiating fieldwork for this to be successful.

- COMMENT - *Rincon Consultants carried out the field survey first then submitted a records search after the field study was done. The field study was not an archaeological field study, neither* "reconnaissance" or "intensive" in techniques since it was *not carried*

*out by a professional trained archaeologist. The focus appears to be on historical building structure than archaeological. The Rincon Cultural Assessment report states (5.1 Methods) "*a separate archaeological survey of the project site was not undertaken".

A FIELD SURVEY (Techniques)

"Reconnaissance" and "Intensive"

The implementation of the research design in the field must be flexible enough to accommodate the discovery of new or unexpected data classes or properties, or changing field conditions. Survey techniques may be loosely grouped into two categories, according to their results. "Reconnaissance and Intensive". The terms "reconnaissance" and "intensive" are sometimes defined to mean particular survey techniques, generally with regard to prehistoric sites.

First are the techniques that result in the characterization of a region's historic/prehistoric properties. Such techniques might include "windshield" or walk-over surveys, with perhaps a limited use of sub-surface survey. This kind of survey is termed a "reconnaissance."

Reconnaissance survey might be used when gathering data to refine a prehistoric context—such as checking on the presence or absence of expected resource types, to define specific prehistoric resource types or to estimate the distribution of prehistoric resources in an area. The results of regional characterization activities provide a general understanding of the prehistoric resources in a particular area and permit management decisions that consider the sensitivity of the area in terms of prehistoric preservation concerns and the resulting implications for future land use planning. In most cases, areas surveyed in this way will require resurvey if more complete information is needed about specific resources.

A Reconnaissance survey should document:

- The kinds of resources looked for;
- The boundaries of the area surveyed;
- The method of survey, including the extent of survey coverage;

The second category of survey techniques is those that permit the identification and description of specific resources in an area; this kind of survey effort is termed "Intensive." Intensive survey describes the distribution of resources in an area; determines the number, location and condition of resources; determines the types of resources actually present within the area; permits classification of individual resources; and records the physical extent of specific resources. An intensive survey should document:

- The kinds of resources looked for;
- The boundaries of the area surveyed;
- The method of survey, including an estimate of the extent of survey coverage;
- A record of the precise location of all resources identified; and
- Information on the appearance, significance, integrity and boundaries of each resource sufficient to permit an evaluation of its significance.

- COMMENT - *Due to the abundance of resources and studies located in close proximity to this project proposal an "intensive" survey technique should have been carried out even if the City of Goleta is lacking a statement of objectives to accomplished suitable archeological documentation activities. This was not done by Rincon Consultants and this was not vetted by the City of Goleta staff. No viable professional techniques could be observed with the report provided.*

FIELD SURVEY (Methods)

Planning Fieldwork, Pedestrian, STP's

Planning Fieldwork

In most instances, a field survey by a professional archaeologist will be required. The purpose of the field survey is to survey the entire property for cultural resources. A Phase I fieldwork consists of a number of methods including pedestrian survey, excavation of shovel test probes, remote sensing, and deep testing of appropriate landscapes. The use of specific field methods and techniques is dependent upon the type of ground cover present, the topographic setting, and the amount of observed disturbance in a given situation.

Five basic points should be kept in mind in planning fieldwork:

1. Fieldwork should make maximum use of background information.
2. The field team should include persons trained to recognize all the types of archaeological phenomena that are likely to occur.
3. It is often most effective to conduct the fieldwork in several stages of increasing intensity.
4. Field methods should be planned carefully to allow for environmental diversity.
5. Within reason, all ground surfaces should be inspected and subsurface exploration should be done if the surface is obscured or if buried sites are thought to be present.

It is a mistake to assume that the mere fact of urbanization means that no archaeological sites can possibly survive. The survival of archaeological sites in an urban environment depends on the construction history of the city itself. If the building has been constructed on shallow foundations, preservation of subsurface remains may be quite good. Background research is of crucial importance in an urban survey. (The Archaeological Survey: Methods and Uses, by Thomas F. King 1978)

- COMMENT - *This project current development status (completely paved lot from 1967) would have afforded two survey methods to be employed. Pedestrian and Shovel Test Probes. It is highly probable shallow foundation work took place here.*

Pedestrian Survey

A pedestrian survey is conducted over the entirety of the project area in order to determine the locations of above-ground resources and to determine the nature of physical and environmental aspects of the project area. Pedestrian survey transects shall be spaced at 10-15m intervals to

ensure proper ground surveillance. As survey is conducted, photographs of the survey area should be taken, and any above ground resources should be mapped.

- COMMENT - *In this project, specifically documentation of the building footprint against the contours of the existing slopes of the property would assist in determining the amount of 'cut' that has taken place during original construction activities. This is crucial to determining the extent of subsurface disturbances and what is know in the area about buried resources. For example, 6inch of surface disturbance would not be enough to impact subsurface resources 18" below the surface. The photos provided in the public document are focused at the building structure 'facing upwards'. This focus would support further investigations since approximately 98% of the parcel is covered by pavement.*

Shovel Test Probes

When ground cover exceeds 25%, shovel test probes (STPs), must be used to locate cultural resources. Shovel tests are used to define areas of low, moderate and high artifact densities in order to guide the placement of excavation units.

- COMMENT - *Since no ground disturbance activity has taken place on this parcel since 1967, and a majority of the parcel is only paved with blacktop parking lot which has a typical disturbance impact of up to 8' to 12" below the surface. The potential for subsurface resources are typically found 18" to 3' ft below the surface based on previous subsurface excavations located in the site record reports, is supported by the proximity of a recorded site boundary no more than 500 ft away and numerous recorded sites and survey reports that have been ignored in this review. Had Rincon conducted the records search and background review first this method may have been employed.*

RECOMMENDATIONS

Phase I Investigation

If data generated during a Phase I investigation clearly document the absence of cultural resources, or if identified cultural resources do not meet the criteria for eligibility to the National Register of Historic Places, then a recommendation of no additional work is appropriate. In order to reach this conclusion, reasons for the determination of ineligibility must be clearly stated. The recordation and documentation of such a site exhausts its research potential, therefore the project will have no effect on the site. If the research potential for a particular site has not been exhausted at the Phase I level, further archaeological investigations may be necessary. A number of factors and questions may be considered at this point, including site integrity, presence/absence of intact stratigraphic deposits, subsurface features, site location, and topographic setting. If the eligibility of an archaeological resource cannot be determined upon completion of Phase I investigations, then Presence/ Absence Phase 1.5 testing may be recommended. If avoidance is not a viable option, then Phase II investigations must proceed.

- COMMENT – *The research potential for a particular site has not been exhausted, the study conducted does not clearly document the absence of cultural resources.*
- *The Background Review Study was conducted sometime after the field study*
- *The Records/ Background search was done after the field survey*
- *The Field Survey (techniques) was not existent, no Reconnaissance, no Intensive*
- *The Field Survey* (Methods) not carried out since no archaeological survey was done
- Pedestrian, not carried out since no archaeological survey was done
- STP's, not done

Based on the faulty steps in the production of the Phase 1 survey, neither a reconnaissance, or intensive survey was ever conducted, the process of Archaeological Documentation is not evident.

2. AB 52 CITATION & PERTINENT LAWS

"*Needed Data"*

AB 52 Citation in this cultural assessment report.

The Office of Historic Preservation (OHP) developed some guidelines for the preparation and review of archaeological reports. They are called Archaeological Resource Management Reports (ARMR). (https://ohp.parks.ca.gov/pages/1054/files/armr.pdf).

These guidelines were developed to aid in the in the preparation of an archaeological report and review. The focus was on "needed data" to provide efficiency and utility. (They are just guidelines and do not come with any strict requirements under current law to be used.)

The guidelines were created to improve the quality of archaeology in California. Under ARMR, the recommended contents and format are provided as a guideline for preparation and review of archaeological reports. Several sections of ARMR outline the need for identification and indication of the pertinent laws should be included in a report.

- Cover letter D - To identify the law, regulation or agreement which document was prepared.
- Cover letter G - Indicate which actions are being requested under applicable laws
- V. Undertaking Information/Introduction, B - Explain why a study was undertaken and citing relevant Federal, State, and local laws

The inclusion of AB52 data in the Rincon Cultural Assessment report does not align with ARMR guidance. It is not classified as "Needed Data" since the law falls under requirements by a government body and not by a contracted consultant. ("Needed Data" refers to information required by regulatory or review agencies) AB52 does not require a cultural assessment report carried out by contracted consultant to be included in any review. It is the Local Government that is required to include AB 52 in its documents. The inclusion of this reference is not relevant and does not provide efficiency or utility.

Pertinent Laws

The appropriate and pertinent laws that a cultural assessment report that is carried out by a contracted consultant and follows the ARMR guidelines are Included below. This list includes relevant citations of Federal, State laws that should have been used to explain why this study was undertaken.

- National Historic Preservation Act 1966. Public Law 89-665: STAT. 915; U.S.C. 470, as amended by Public Law 91-243, Public Law 94-458, Public Law 96-199, Public Law 96-244, and Public Law 96-515.
- Protection of Historic Properties (36 CFR Part 800). Federal Register, Vol. 51, No.169. September 1986
- National Register of Historic Places (36 CFR part 60).
- National Register of Historic Places (35 CFR part 60 and 63). Proposed Rule. Federal Register, Vol 51, No. 150. August 5, 1986.
- Curation of Federally-owned and Administered Archaeological Collections (36 CFR 79). Proposed Rule. Federal Register, Vol, 52, No. August 28, 1987.
- Uniform Rules and Regulations: Archaeological Resources Protection Act of 1979(43 CFR Part 7). Federal Register, Vol. 43, No. 4. January 6, 1984.
- CEQA: California Environmental Quality Act Statues and Guidelines. Office of Planning and Research, Office of Permit Assistance, Sacramento, Ca 1986.
- California Health and Safety code, section 7050.5
- California Public Resource Code, Section 5097, PRC 5097.9 – 5097.96, PRC 5097.97, PRC 5097.98, PRC 5097.99, PRC 5097.993, PRC 5097.994, PRC 21083.2, PRC 218084.1.
- The National Environmental Policy Act (NEPA)

3. "C"onsultation, "c"onsultation,

"other individuals"

Various federal and state laws and regulations define the term "consultation" slightly different, but common among them is that consultation is a means between interested parties to obtain and consider views and to exchange ideas and information. Often consultation is a defined process to reach an agreement, a consensus, and/or an informed decision.

The Interaction between the federal government and federally recognized Indian tribes is referred to government-to-government consultation, or in the vernacular as "Consultation" with a capital "C". Consultation, particularly for historic preservation issues under the Section 106 regulations, often is referred to as consultation with a small "c", since it is in reference to consultation with all parties not just tribes.

Since the definitions of consultation are found in the federal regulations for complying with section 106 of the National Historic Preservation Act (NHPA) they fall between the work of the "agency official" (5 U.S.C. 551.) and SHPO/THPO. This is officially carried out by the Government body.

Since the introduction of SB-18 and AB 52 the process of "Consultation" with Tribes has been further defined and is strictly between local government and the tribal government. The process of "consultation" is often interwoven between tribes and the outreach work done in an archaeological report.

Archaeological reports carried out by parties that meet the Secretary of the Interiors professional qualifications, are tasked with caring out reports that meet the goals of the Act (NHPA). This is an informal process and not governed by any law. The task of an Archaeological report working under the guidance of NHPA will work towards meeting both of these goals:

- (36 CFR 800.4 [a] (3) Seek information, as appropriate, from consulting parties, and other individuals and organizations likely to have knowledge of, or concerns with, historic properties in the area, and identify issues relating to the undertaking's potential effects on historic properties.
- (36 CFR 800.4 [b] (1) Level of effort. The agency official shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey.

When an archaeological report is produced it should address both of the goals above in its identification efforts.

In the Rincon Cultural Assessment report refers to "consultation" and Tribes in association with each other. As stated previously this is incorrect. Maybe the mistake was in the report preparation to make this distinction. Given the time and efforts of California Native American tribes to work for countess years to get these laws in place it seems disingenuous to conflate the different laws under one meaning. Lead agencies, local government and planning staff should

recognize this and require consultants to correct this mis-step than allowing them to pass a report into public view.

Meanwhile, an archaeological report should be clear that it attempted to full fill the criteria evidenced above. (36 CFR 800.4 [a] (3) & (36 CFR 800.4 [b] (1). In this case, neither the City of Goleta or Rincon Consultants attempted to contact me, other individuals and organizations likely to have knowledge of, or concerns with, historic properties in the area, and identify issues relating to the undertaking's potential effects on historic properties. I have been working on cultural resources in this specific neighborhood for the past 14yrs. The City of Goleta has always known this through the repeat oversight review I have done on numerous projects in this neighborhood.

4. RECORDS/ BACKGROUND

"Data"

The RINCON CONSULTANTS Cultural Resources Assessment, Jan 2020 report uses five (5) sources of information to support its conclusions and recommendations and summary findings for this proposed project. They include:

1. **Ten studies include portions the project site and are summarized** (report page numbered 23 – 25)
2. **Table 1 Previously Recorded Cultural Resources within 0.5 mile of the Project Site** (report page numbered 26 – 37)
3. **Table 1 Previous Cultural Resources Studies within 0.5-Mile of the Project Site.** Appendix (Document page 68/117 to 76/117)
4. "**Report List"** report page numbered 1 – 13
5. "**Resources List**" report pages numbered 1 – 7

Each of these documents are used to support RINCON CONSULTANTS Cultural Resources Assessment, Jan 2020 report findings falsely. Each source of information has been reviewed and compared and contrasted against each report as well detailed inspection of the appropriateness of each report and conclusions.

A detailed breakdown is covered for each source of information and includes appropriate reports for the proper characterization of the area with regards to Cultural resources.

1. **Ten studies include portions the project site and are summarized** (report page numbered 23 – 25)

Each study presented to characterize the area and setting for the potential of cultural resources in the area. Having a list of 10 reports provides the reader a sense of an abundance of data to help make a conclusion that plenty of information is known about the area to make an informed decision. A closer look at the source material and setting to an informed party this appears to be a diversionary tactic used to present limited information and appear to have provided relevant data.

SR- 01082 Proposed fiber optic line. This is a records search and surface survey- These reports are often broad and cover long distance surveys. (Found on pg. 70/77 of RINCON CONSULTANTS Cultural Resources Assessment, Jan 2020 report.) A general report.

- This report was NOT listed on the "Reports List" pg. 3/13.

If the CCIC database has some miss entry, it raises questions as to further error potential to all its database entries. If the CCIC is in error for not including this report on the "Report List". Rincon consultants also failed to adequately review the material they had received for completeness or to cross reference the source.

Since this report is only a surface survey it is not a high-ranking choice to properly characterize the area for cultural resources when there are dozens of other better reports to draw from. It is a report in close proximity to the project location. This is number 1/8 reports found in the ROW area of the utility agency.

SR- 01419 This is a consolidated report of previous studies for a proposed pacific pipeline project. This report summary on the surface shows potential for characterizing the project area since it discusses a recommendation to do a phase 2 text excavation program. It also includes burials, house pits, ground stones all the things to watch out for. However, a closer look at the details shows this is more likely to be at beyond the 0.5-mile radius of the current proposed project. It does state the authors focused the report on 0.6 miles to east of the current project. Using a report that is out of the 0.5-mile radius to characterize cultural resources for this project seems misleading meant to thwart the average reader. This report is adjacent to the project location but lacks any specifics as to any work done next to the parcel only suggesting information is about either end of the 0.5 mile-radius. This is number 2/8 reports found in the ROW of the utility agency.

SR- 01446 This report is about the fiber optics cable line that goes from Salinas to Los Angles. This is a records search and surface survey- Tells us noting about what lies underneath the surface. This report does not provide quality information for characterizing the area for cultural resources. This is number 3/8 reports found in the ROW area of the utility agency.

- This report is not in the "Report List" (report pg. 4/13.) or the "Resource List". Another CCIC missed entry error?

SR- 01447 This is a broad report that involves a record search and surface resurvey covering three counties, Santa Barbara, Ventura and LA county. It mentioned 24 shovel test pits but not at 57/60. A recommendation for trenching was suggested but the summary does not indicate if it was ever done at 57. The closest site to the project. This resurvey does not provide any relevant information to support the characterization of cultural resources of the area. It only provides an introduction for the next report. SR-01449. This is number 4/8 reports found in the ROW area of the utility agency.

SR-01449 This report is on backhoe work to define the boundaries of two sites located at opposite ends of this project proposal. One site is 0.2 miles, while the other is 0.6 miles away from the project location. It does not identify how many trenches or how close they came to the

project proposal. Information about the subsurface conditions would be useful in assisting on describing the soil conditions of the area. This in itself is helpful for characterizing the area for cultural resources but that focus of information was not used here. This report is relevant but not used to characterize the area. This is number 5/8 reports found in the ROW area of the utility agency.

SR-01811 This general overview report on "place-names" is a secondary use report to support recorded and identifiable data in the record. Of the 124 reports available to characterize the area for cultural resources any other report would have been primary. This is number 6/8 reports found in the ROW area of the utility agency.

SR-02142 A Management and preservation plan. Another report that does not support the concept of characterizing the area for cultural resources when dozens of actual subsurface reports are available for this project location.

SR-04058 This report is another repeat of work in an area where previous studies have taken place. It includes SLF search, surveys and maintenance work which tends to be isolated to specific points. Appears to be mostly cursory information that attempts to consolidate and redefine previous site records. Very little characterization information can be gleamed from this report.

SR-04111 Another project that takes place in the ROW north of the project site. This is a survey, monitoring and testing but further details are where testing took place or the outcome are not listed. Not a useful report to characterize the area for cultural resources. This is number 7/8 reports found in the ROW area of the utility agency.

SR-04985 This is a letter report of the roadway and is the only report that is documented in this list that is not part of the previous ROW projects and includes subsurface exposures that are leading up to the project parcel. Unfortunately, letter reports generally lack any real detailed useful information, this report appears to be the only relevant report that has yet to be referenced.

- COMMENT In Summary, 7 of the 10 reports used to characterize the area for cultural resources take place in the ROW of the aforementioned utility agency. They are either a compilation of past reports, survey reports or subsurface exposures at or beyond 0.5-mile radius of the project site. Or reports that lack relevance. The only report that has the potential to offer information about the subsurface characterizations of resources in the area is a letter report and just by the type of report these are they lack any viable information for characterizing an area.
- COMMENT Since 1967 when this project location was developed it has remained the same till now. CEQA was not enacted till 1970, and typically the archaeological survey reports we have on file are project driven in accordance with CEQA. Since it has remained the same development since origin than it would be futile to prepare a summary of reports that emphasize "the study identified no cultural resources within the proposed project site." It would have been far more honest to admit from the start that no surveys

would be on the project site and then focus on the reports and records that provide an insight into what we do know about the area on cultural resources. Providing a valid characterization of cultural resources for the area is important to the discipline of archaeology. Producing a summary of reports that lack primary information that would adequately characterize the potential of cultural resources but meets the requirements of the "checklist" under CEQA is a text book example of a report that is deficient under CEQA and to the discipline of archaeology.

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2. **Table 1 Previously Recorded Cultural Resources within 0.5 mile of the Project Site** (report page numbered 26 – 37)

Previously Recorded Cultural Resources within 0.5 mile of project site.

The Rincon Consultants Cultural Assessment report states "The CCIC records search identified 68 previously recorded cultural resources within a 0.5-mile radius." This is presented on Table 1 and listed on report page number 26 – 37. 14 of those resources are listed as prehistoric resources.

Alternate Recommendation

A closer look of the 0.5-mile radius shows 4 resources are beyond the 0.5-mile radius and 2 of the reports associated with these resources are unidentifiable because they have no summary information that indicate their location. This leaves 8 recorded sites are suitable for review.

Using the CCIC "Resource List" (report page numbered 1 – 7) a list of associated "reports" was created from the 8 recorded sites list defined as being under the 0.5-mile radius of the proposed project site. They offer relative examples of characterizing the area for cultural resources. These sites include:

CA-SBA- 0056	CA-SBa- 0057	CA-SBa-58	CA-SBa-0059
CA-SBa- 00 2391	CA-Sba- 01703	CA-SBa-0062	CA-SBa-1576

This list was then cross referenced against the "Table 1 Previous Cultural Resources Studies within 0.5-Mile of the Project Site. Appendix (Document page 68/117 to 76/117)".

3.Table 1 Previous Cultural Resources Studies within 0.5-Mile of the Project Site. Appendix (Document page 68/117 to 76/117)

As stated previously in the Rincon consultants Cultural Assessment report "The CCIC records search identified 124 previously recorded cultural resource studies within 0.5-mile radius of the project site."

- COMMENT- Appendix A provides the results of the records search. The exact count of Table 1 is 124, but this number does match not what is found in the "Report List" in Appendix A of 141 studies.

17 reports listed under the CCIC "Resource Listing" are not found on Table 1, or "Report Listing" This is outlined in the **Missing Reports** Table below.

To address the refined list of 8 recorded resources with-in the 0.5-mile radius and reports associated with them, a new list of possible studies needed to be identified.

This was done by using the SR number listed on the CCIC "Resource List". The CCIC "Resource List" identified 141 Survey reports associated with the 8 recorded resources that are within 0.5-mile radius of the project site. Unfortunately, the new 17 reports discovered are missing from the Table 1 on Document page 68/117 to 76/117. They did not come with any summary information.

This new discovery means that there is some issue with the CCIC database is leaving out reports in its summary Tables 1, assuming they are the ones producing the summary Table 1. Or it means that Rincon Consultants failed at transposing the report list they were issued from the CCIC center and adding it to their summary table 1. The absence of 1 or 2 reports from a records search might be acceptable but to have 17 reports missing could lead towards an unfavorable outcome of a review of a project proposal. At the very least Rincon Consultants should have been aware of the missing reports prior to the display of the information publicly and made a notation of it.

- COMMENT The list of reports found on Table 1, Document page 68/117 to 76/117 is listed first in order and numbered 1 to 124. I have included the 17 missing reports and the SR number. As stated previously these missing reports can be seen in the "Detailed Site Report Review." They are simply identified as "Missing". 6 of the 8 recorded sites have reports missing from the Table 1 summary review.

Table 1 Previous Cultural Resources Studies within 0.5-mile of the Project site (Appendix A, 68/117. RINCON CONSULTANTS CR Assessment, Jan 2020/ **Missing Reports**)

1. SR-00101
2. SR-00103
3. SR-00104
4. SR-00110
5. SR-00113
6. SR-00116
7. SR-00123
8. SR-00124
9. SR-00125
10. SR-00127
11. SR-00132
12. SR-00133
13. SR-00135
14. SR-00136
15. SR-00137
16. SR-00140
17. SR-00151
18. SR-00158
19. SR-00160
20. SR-00164
21. SR-00180
22. SR-00181
23. SR-00217
24. SR-00228
25. SR-00239
26. SR-00243
27. SR-00246
28. SR-00470
29. SR-00710
30. SR-00726
31. SR-00731
32. SR-00782
33. SR-01063
34. SR-01068
35. SR-01082
36. SR-01181
37. SR-01194
38. SR-01419
39. SR-01446
40. SR-01447
41. SR-01449
42. SR-01491
43. SR-01492
44. SR-01530
45. SR-01554
46. SR-01620
47. SR-01672
48. SR-01673
49. SR-01676
50. SR-01711
51. SR-01730
52. SR-01746
53. SR-01763
54. SR-01811
55. SR-01812
56. SR-01822
57. SR-01967
58. SR-02094
59. SR-02128
60. SR-02142
61. SR-02272
62. SR-02278
63. SR-02280
64. SR-02355
65. SR-02361
66. SR-02433
67. SR-02462
68. SR-02473
69. SR-02507
70. SR-02523
71. SR-02524
72. SR-02596
73. SR-02655
74. SR-02661
75. SR-02802
76. SR-02829
77. SR-02886
78. SR-02969
79. SR-02997
80. SR-03002
81. SR-03060
82. SR-03112
83. SR-03118
84. SR-03215
85. SR-03234
86. SR-03235
87. SR-03524
88. SR-03556
89. SR-03599
90. SR-04014
91. SR-04058
92. SR-40581
93. SR-04111
94. SR-04111a
95. SR-04111b
96. SR-04111c
97. SR-04397
98. SR-04443
99. SR-04543
100. SR-04555
101. SR-04588
102. SR-04598
103. SR-04630
104. SR-04638
105. SR-04644
106. SR-04670
107. SR-04696
108. SR-04715
109. SR-04715a
110. SR-04715b
111. SR-04715c
112. SR-04715d
113. SR-04715e
114. SR-04724
115. SR-04891
116. SR-04895
117. SR-04985
118. SR-04993
119. SR-05025
120. SR-05101
121. SR-05101b
122. SR-05101c
123. SR-05109
124. SR-05109a

List of 17 reports missing from this table but found in the CCIC "Reports List." (pg. 77/117 of this report)

1. **SR-00282**
2. **SR-01584**
3. **SR-02022**
4. **SR-02041**
5. **SR-02249**
6. **SR-02268**
7. **SR-03092**
8. **SR-03249**
9. **SR-04539**
10. **SR-04700**
11. **SR-04852**
12. **SR-04874**
13. **SR-05132**
14. **SR-05173**
15. **SR-05215**
16. **SR-05371**
17. **SR-05405**

4. "**Report List"** report page numbered 1 – 13

The CCIC produces a "Report List" when a records search is requested. This "Report List" is comprised of a geographical distance (in this case 0.5-mile radius) of all reports they have documented in that given area. It includes the Report number, Year, Author, Title, and resources associated with that record. The Title provides a brief description of the type of work and location. The information found here are just cursory and require further investigations to determine if the report is pertinent to a review.

5. "**Resources List**" report pages numbered 1 – 7

The CCIC produces a "Resource List" when a records search is requested. This "Resource List" is comprised of a geographical distance (in this case 0.5-mile radius) of all resources they have documented in that given area. It includes a Primary Number, Trinomial Number, Type, Age, recorded by and the Reports associated. (a few other criteria are listed by used for internal CCIC work) The "resource List" provides the Report numbers that the CCIC has recorded for that resource. A SR number has been assigned and listed in association with the resource. If a SR number has been assigned it should be included in a "Report List".

17 reports listed under the CCIC "Resource Listing" are not found on Table 1, or "Report Listing" This is outlined in the **Missing Reports** Table.

Available reports

No.	Site #	DISTANCE MI/FEET		REPORTS			Human remains	STUDY
		MILES	FEET	Poss.	Missing	Use		
1.	P-42-000056	0.38	2,006	17	4	4	YES	I.5,II,III
2.	P-42-000057	0.19	1,020	5	1	1	YES	M
3.	P-42-000058	0.08	400	24	3	16	YES	I.5,II,III,L
4.	P-42-000059	0.20	1,300	15	4	5	?	I.5,II,III,L
5.	P-42-000060	0.51	2,667	39	?	0	YES	
6.	P-42-000062	0.32	1,681	2	0	0	YES	0
7.	P-42-001574	0.55	2,900	1	?	0	NO	
8.	P-42-001575	0.54	2,864	0	0	0	NO	
9.	P-42-001576	0.5	2,621.33	0	0	0	NO	N/A
10.	P-42-001577	0.59	3,100	0	0	0	NO	
11.	P-42-001703	0.45	2,386.93	14	7	3	YES	M,II
12.	P-42-002391	0.42	2,216.81	3	2	1	?	M
13.	P-42-003822	?	?	0	0	0	?	
14.	P-42-003944	?	?	1	0	0	YES	
				*	*	30		

This chart above identifies the 14 Recorded Cultural resources that are Prehistoric based off the RINCON CONSULTANTS Cultural Resources Assessment, Jan 2020. It also identifies for easy reference the amount of possible reports available for each recorded resource and what was listed in the Appendix A of the same report. The distance from the project site and the resource. One column identifies the report count that are useful for proper characterization of cultural resources of the area. (* A few of the reports are duplicated between 2 resources, so the number totals under POSS & Missing are different. The count of 17 missing took this in to consideration)

The Study Type focused on the possibility of 'witnessing' any subsurface ground disturbances or exposures of subsurface soils.

Detailed Site Report Review

A detailed review of each of the 8 resources located with-in the 0.5-mile radius was crossed with the "reports list" and "resource List". The amount of reports, the summary information, the rational for use and the distance to the project location. The recommendation to use a report and which reports are 'missing' is listed.

CA-SBa- 56

No.	CA-SBa-56	Study	Table 1	Use	Reason to use or not use	Distance to project
1	SR-00151	Undetermined	Yes	No	No info	N/A
2	SR-00246	Report	Yes	No	Surface	N/A
3	SR-01730	Summary	Yes	No	Summary report	N/A
4	SR-01746	Stream report	Yes	No	Surface survey	N/A
5	SR-02128	Summary	Yes	No	Summary report	N/A
6	SR-02142	Plan	Yes	No	Management plan & summary. Surface work	N/A
7	SR-02249	MISSING	NO	NO	No info- missing from Table1 & Reports List	
8	SR-02462	Phase ii	Yes	YES	Phase ii, subsurface	0.38 Mi. / 2,006
9	SR-02969	Report	YES	No	Boundary defined, typically surface survey and report review	
10	SR-03118	Phase 1.5	Yes	YES	Subsurface investigation for presence or absence	0.32 Mi. /1,683
11	SR-04111	Monitor	YES	No	Monitor report for long haul- often broad report	
12	SR-04539	MISSING	No	NO	No info	
13	SR-04543	Assessment	Yes	No	Could be relevant but distance makes this isolated to this site	
14	SR-04715A	Survey	Yes	No	Surface survey	
15	SR-04874	MISSING	NO	NO	No info	
16	SR-05109	Data recovery	Yes	Yes	Phase III, date recovery	0.38 Mi./2,006
17	SR-05109a	Data, Geo.	Yes	Yes	Phase III, Geomorphology	0.38 Mi./2,006

CA-SBa- 56

- 17 reports possible
- 3 reports missing from Table 1 - SR-02249, SR-04539, SR-04874
- 4 recommended to use SR-02462, SR-03118, SR-05109, SR-05109A

CA-SBa-57

No.	CA-SBa-57	Study	Table 1	Use	Reason to use or not use	Distance to project
1	SR-00246	Report	Yes	No	Overall report, often general for flood plain uses surface studies	N/A
2	SR-01082	MISSING	No	No	No info	N/A
3	SR-01419	Report	Yes	No	Summary report	0.24 Mi./1,275
4	SR-01447	Report	Yes	No	Summary report	0.24 Mi. /1,275
5	SR-02272	Monitoring	Yes	Yes	Exposure & Observation of subsurface context	0.26 Mi. /1,386

CA-SBa-57

- 5 reports possible
- 1 report missing from Table 1, SR-01082
- 1 recommended report to use SR-02272

CA-SBa-58

No.	CA-SBa-58	Study	Table 1	Use	Reason to use or not use	Distance to project
1	SR-00101	Tech report	Yes	Yes	Report about area past disturbances	0.21 Mi. /1,085
2	SR-00103	Tech report	Yes	Yes	Report about area past disturbances	0.21 Mi. /1,085
3	SR-00116	Monitoring	Yes	Yes	Exposure & Observation of subsurface context	0.22 Mi. /1,152
4	SR-00123	Proposal	Yes	Yes	Phase II – Resource found & evaluated.	0.16 Mi. /832
5	SR-00124	Phase II	Yes	Yes	Phase II – Resource found & evaluated.	0.11 Mi. /555
6	SR-00125	Phase III	Yes	Yes	Phase III – DATA RECOVERY od resource.	0.11 Mi. /555
7	SR-00127	Sewer line	Yes	Yes	Exposure & Observation of subsurface context	0.10 Mi. / 510
8	SR-00136	Phase I	Yes	No	Surface survey	?
9	SR-00137	Evaluation	Yes	No	Report	0.08 Mi. /400
10	SR-00140	EIR	Yes	No	Report	0.32 Mi. /1,689
11	SR-00164	Tech Report	Yes	Yes	Report about area past disturbances	?
12	SR-00180	?	Yes	Yes	Investigations are location- unknow if subsurface activity	0.15 Mi. /794
13	SR-00228	Letter Report	Yes	Yes	Report about area past disturbances	0.27 Mi. /1,400
14	SR-01491	EA	Yes	Yes	Report about area past disturbances	0.27 Mi. / 1,400
15	SR-01492	DEIR	Yes	No	Summary	
16	SR-01554	Phase II	Yes	Yes	Phase II – Resource found & evaluated.	0.28 Mi. /1,490
17	SR-01584	MISSING	No	No	Missing	
18	SR-02022	MISSING	No	No	Missing	
19	SR-02655	Phase I & II	Yes	Yes	Phase II – Resource found & evaluated.	0.20 Mi. /1,076
20	SR-03060	Phase I	Yes	No	Surface survey	
21	SR-04744	Assessment	Yes	Yes	Report about area past disturbances	0.25 Mi. /1,300
22	SR-04891	Phase 1.5	Yes	Yes	Phase 1.5 – subsurface investigation for presence or absence	0.25 Mi. /1,300
23	SR-04895	Phase 1.5	Yes	Yes	Phase 1.5 – subsurface investigation for presence or absence	0.10 Mi. /600
24	SR-05215	MISSING	No	No	Missing	

CA-SBa-58

- 24 reports possible
- 3 report missing from Table 1, SR-01584, SR-02022, SR-05215
- 16 Recommended report to use SR-00101,103,116,123,124,125,127,164,180,228,1491,1554,2655,4644,4891,4895

CA-SBa- 59

No.	CA-SBa-59	Study	Table 1	Use	Reason to use or not use	Distance to project
1	SR-00116	Monitor	Yes	No	Observation of subsurface context- already used on 58	0.22 Mi. /1,152
2	SR-00160	Proposal	Yes	No	Report	0.20 Mi. / 1,300
3	SR-00180	Report	Yes	No	Report – Surface survey	0.20 Mi. / 1,300
4	SR-00217	Phase I	Yes	No	Surface survey	0.20 Mi. / 1,300
5	SR-00243	Report Eval	Yes	Yes	Evaluation - Report about area past disturbances	0.20 Mi. / 1,300
6	SR-00782	Report Letter	Yes	No	Report – Surface survey	0.20 Mi. / 1,300
7	SR-01194	Phase II, III	Yes	Yes	Resource found Evaluated Data recovery	0.20 Mi. / 1,300
8	SR-01530	Phase 1.5	Yes	Yes	Subsurface investigation for presence or absence	0.20 Mi. / 1,300
9	SR-01554	Phase II	Yes	Yes	Phase II – Resource found & evaluated.	0.20 Mi. / 1,300
10	SR-01584	Missing	No	No	No data	0.0
11	SR-02268	Missing	No	No	No data	0.0
12	SR-02280	Phase 1.5, II	Yes	Yes	Subsurface investigation for presence or absence & Evaluation	0.20 Mi. / 1,300
13	SR-02997	Report	Yes	No	Report – Surface survey	0.20 Mi. / 1,300
14	SR-04852	Missing	No	No	No Data	0.0
15	SR-05173	Missing	No	No	No Data	0.0

CA-SBa-59

- 15 reports possible
- 4 report missing from Table 1, SR-01584, SR-02022, SR-05215
- 5 Recommended report to use SR-00243, 1194, 1530, 1554. 2280

CA- SBa-2391

No.	CA-SBa-2391	Study	Table 1	Use	Reason to use or not use	Distance to project
1	SR-001584	Missing	No			
2	SR-004852	Missing	No			
3	SR-001711	Monitor	YES	Yes	Observation of subsurface context	0.42 Mi. /2,216

CA-SBa-2391

- 3 reports possible
- 2 report missing from Table 1, SR-01584, SR-004852,
- 1 Recommended report to use SR-01711

CA-SBa-1576

No.	CA-SBa-1576	Study	Table 1	Use	Reason to use or not use	Distance to project
1	No report				Only a Site record	

Nothing to recommend. Distance is at edge of 0.50-mile radius.

CA-SBa-1574,1575,1577 at 0.60+ of radius.

CA-SBa-62

No.	CA-SBa-52	Study	Table 1	Use	Reason to use or not use	Distance to project
1	SR-00246	Report	Yes	No	Report – Surface survey	0.33 Mi. / 1,763
2	SR-01746	Report	Yes	No	Report – Surface survey	0.33 Mi. / 1,763

Nothing to recommend.

CA-SBa-1703

No.	CA-SBa-1703	Study	Table 1	Use	Reason to use or not use	Distance to project
1	SR-00158	Report	Yes	No	Report – Surface survey	
2	SR-00239	Phase II	Yes	Yes	Phase II – Resource found & evaluated.	
3	SR-01082	Report	Yes	No	Report – Surface survey	
4	SR-01419	Report	Yes	No	Report – Surface survey	
5	SR-01620	Monitoring	Yes	Yes	Observation of subsurface context	
6	SR-02041	Missing	No	No	No Data	0.0
7	SR-03092	Missing	No	No	No Data	0.0
8	SR-03249	Missing	No	No	No Data	0.0
9	SR-04555	Report	Yes	No	Report – Surface survey	
10	SR-04696	Phase II	Yes	Yes	Phase II – Resource found & evaluated.	
11	SR-04700	Missing	No	No	No Data	0.0
12	SR-05132	Missing	No	No	No Data	0.0
13	SR-05371	Missing	No	No	No Data	0.0
14	SR-05405	Missing	No	No	No Data	0.0

CA-SBa-1703

- 14 reports possible
- 7 report missing from Table 1, SR-02041,3092,3249,4700,5132,5371,5405
- 3 Recommended report to use SR-00239, SR-01620, SR-00496

Report Use Recommendation

These 30 reports should be used to provide a realistic characterization of the area. They all include some form of subsurface disturbances that allow for the exposure of buried soils.

1.SR- 00101	11. SR- 02272	21.SR- 02272
2.SR- 00103	12. SR- 00239	22.SR- 02280
3.SR- 00116	13. SR- 00243	23.SR- 02462
4.SR- 00123	14. SR- 00496	24.SR- 02655
5.SR- 00124	15. SR- 01194	25.SR- 03118
6.SR- 00125	16. SR- 01491	26.SR- 04644
7.SR- 00127	17. SR- 01530	27.SR- 04891
8.SR- 00164	18. SR- 01554	28.SR- 04895
9.SR- 00180	19. SR- 01620	29.SR- 005109
10..SR- 00228	20. SR- 01711	30.SR- 005109A

These reports should be inspected for potential subsurface exposure. The study description does not have enough information that was allow for that determination. Due to the proximity and the nature of the work to the project site they were included.

- SR-00180 SR-00228 SR-01491 SR-4644

Summary

Based on the Standards of the Secretary of the Interior on Archaeological documentation, including the Data, techniques and methods I have determined that this review of Cultural Resources review carried out by the City of Goleta is not in line with acceptable review under CEQA. They have failed to identify impacts to cultural resources.

The City of Goleta has failed to provide any oversight of this cultural resources section review by allowing a flawed report that does not adhere to the Secretary of the Interior Archaeological documentation standards to be accepted in to the public record. The issue does not steam from the work carried out by its staff but rather the City's planning program as a whole. The City of Goleta has failed to enact any ordinances that address Archaeological assessment review, no ordinances to properly fulfill the requirements of state laws such as SB-18 & AB52 for the past 14years. So it comes with very little surprise that this review of cultural resource impacts is so flawed with errors and that the City did not notice.

The City of Goleta failed to initiate AB52 Tribal consultation for over a year on this project. The trigger for initiating tribal consultation is outlined in the Tribal consultation guidelines and discussed in detail in this report review. Because the City of Goleta has failed to adopt ordinances to carry out the laws under SB-18 & AB52 this has left the City of Goleta to "make up" a concept of what qualifies as when to initiate consultation. The "trigger" is cited in detail in this review for Government initiated proposals.

The only recommendation going forward is an Archaeological review by a 3rd party archaeologist. A new archaeological assessment report must be done that properly characterizes the area and demonstrates the proper methods and techniques expected of a high standard federal document. It should include a new records search from the CCIC and rectify the missing records discussed in this review. After the background review a new "intensive" filed survey needs to be done by a qualified professional in the field of Archaeology. In addition, due to the lack of development on the project location a phase 1.5 presence/absence program needs to be carried out to properly characterize the subsurface status for cultural resources since the whole lot is covered by asphalt. Outreach to "interested parties" that may have information pertaining to this project must also take place, not just those listed on the NAHC list. A qualified Archaeologist will have alternate sources of contacts list than what is listed on the NAHC contact list.

Any new archaeological report carried out must have an actual Mitigation measure that is defined by CEQA **Code** § 21002.1(a).] not actions that have been common only used to justify as a mitigation measure in the past.

Oversight review of this project by the OHP State Clearing House needs to take place due to the lack of ordinances to implement the cultural resources laws by the City of Goleta to ensure proper compliance with all CEQA related actions.

The Office of Planning and Development should conduct oversight and provide direction to the City of Goleta to bring its ordinance program to current standards with regards to SB-18 & AB52 in the next 60 days. The City of Goleta was presented with a full detailed ordinance text that

would be legally bring it compliant with the law on October 2019 during public comment to its zoning ordinance modifications. Since then, they have had no reason not to adopt the changes suggested.

State Clearing House has been sent this report with a request to provide comment on this accuracy of this report ad this project.

Over 120 hours was put into this review. It is long and it is detailed in order to provide accurate and focused detailed comments on this project. Some factors were left out regarding the past year input by the Train depot to make the City of Goleta aware of this proposal. Various suggestions seem to imply as early as January 2019 notices were made. The first I heard of this project was at a City of Goleta special meeting for Platform Holly in Nov. 2019. Where I was told specifically by staff that no work had been started with this proposal. Only to find out those statements to me were false.

The area for this proposal is highly sensitive for cultural resources and this project needs further review to assure under CEQA, that all impacts to Cultural Resources have been identified and appropriate mitigation measures have been recommended in order to reduce the impacts to less than significant. Cultural resources are non-renewable so we never get a second chance to make it right.

Thank you for your time and efforts in this matter.

Best wishes, Frank Arredondo
Ksen~Sku~Mu
Chumash MLD
Po Box 161
Santa Barbara, Ca 93102
Email Ksen_Sku_Mu@yahoo.com

From: Pontes, Cindy@CHP <[redacted]>
Sent: Thursday, May 28, 2020 3:47 PM
To: Jaime Valdez <jvaldez@cityofgoleta.org>
Cc: Scott Morgan <state.clearinghouse@opr.ca.gov>; CHP-701_AA_Desk <701_AA_Desk@chp.ca.gov>; Mora, Leah@CHP <[redacted]>
Subject: 063 – LM – Environmental Document Review – SCH# 2020050499 – Due to Lead Agency by 6/24/2020

Mr. Valdez,

I have reviewed the environmental documents and no impact to the Santa Barbara Area's local operations and/or public safety by SCH# 2020050499 was identified. If you have any questions or need any further assistance please feel free to contact me.

Thank You,
Cindy Pontes
Captain
Santa Barbara Area

From: Julie Tumamait-Stenslie <[redacted]>
Sent: Wednesday, June 24, 2020 5:31 PM
To: Jaime Valdez <jvaldez@cityofgoleta.org>
Subject: RE: GOLETA TRAIN DEPOT PROJECT 27 S. La Patera Lane; APN 073-050-033- comment letter

Greetings , I hope I not too late to submit comments regarding the train depot project.
1.We would like to request a 3rd party review of the Phase 1 report.
2. We request monitoring the demolition of the old structures. And monitoring for the new design
3.we request the use of Native Plants in the landscape design
4. We would like to see some interpretation of our Culture in the way of murals or sculptures
Thank you very much
Julie Tumamait Stenslie
Tribal chair of the Barbareno/Ventureno Band of Mission Indians
805 701 6152

Appendix C

Air Quality and Greenhouse Gas Emission Modeling

Goleta Train Depot Project

Santa Barbara-South of Santa Ynez Range County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	9.00	1000sqft	0.21	9,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	37
Climate Zone	8			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Retail strip mall would have similar energy and water use as a depot

Construction Phase - Extended per project schedule

Demolition -

Grading - Per initial engineering assessment

Vehicle Trips - Per daily trip estimates

Area Coating -

Construction Off-road Equipment Mitigation -

Area Mitigation -

Goleta Train Depot Project - Santa Barbara-South of Santa Ynez Range County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	10.00
tblConstructionPhase	NumDays	2.00	30.00
tblConstructionPhase	NumDays	100.00	200.00
tblConstructionPhase	NumDays	5.00	10.00
tblGrading	MaterialExported	0.00	15,000.00
tblVehicleTrips	ST_TR	42.04	39.00
tblVehicleTrips	SU_TR	20.43	39.00
tblVehicleTrips	WD_TR	44.32	39.00

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					
2022	1.1949	22.2732	12.9479	0.0589	4.3566	0.3975	4.7118	0.7387	0.3799	1.1186	0.0000	6,413.6815	6,413.6815	0.7463	0.0000	6,432.3391
2023	21.0520	6.5036	7.3491	0.0122	0.1137	0.3205	0.3786	0.0302	0.2949	0.3016	0.0000	1,144.0288	1,144.0288	0.3596	0.0000	1,153.0184
Maximum	**21.0520**	**22.2732**	**12.9479**	**0.0589**	**4.3566**	**0.3975**	**4.7118**	**0.7387**	**0.3799**	**1.1186**	**0.0000**	**6,413.6815**	**6,413.6815**	**0.7463**	**0.0000**	**6,432.3391**

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					
2022	1.1949	22.2732	12.9479	0.0589	4.3566	0.3975	4.7118	0.7387	0.3799	1.1186	0.0000	6,413.6815	6,413.6815	0.7463	0.0000	6,432.3391
2023	21.0520	6.5036	7.3491	0.0122	0.1137	0.3205	0.3786	0.0302	0.2949	0.3016	0.0000	1,144.0288	1,144.0288	0.3596	0.0000	1,153.0184
Maximum	**21.0520**	**22.2732**	**12.9479**	**0.0589**	**4.3566**	**0.3975**	**4.7118**	**0.7387**	**0.3799**	**1.1186**	**0.0000**	**6,413.6815**	**6,413.6815**	**0.7463**	**0.0000**	**6,432.3391**

	ROG	NOx	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	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2498	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Energy	5.3000e-004	4.8300e-003	4.0600e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.8018	5.8018	1.1000e-004	1.1000e-004	5.8363
Mobile	0.4422	1.4290	3.8576	9.1300e-003	0.8797	8.3400e-003	0.8881	0.2357	7.7800e-003	0.2435		928.4862	928.4862	0.0509		929.7576
Total	**0.6925**	**1.4339**	**3.8626**	**9.1600e-003**	**0.8797**	**8.7100e-003**	**0.8884**	**0.2357**	**8.1500e-003**	**0.2439**		**934.2899**	**934.2899**	**0.0510**	**1.1000e-004**	**935.5960**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2498	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Energy	5.3000e-004	4.8300e-003	4.0600e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.8018	5.8018	1.1000e-004	1.1000e-004	5.8363
Mobile	0.4422	1.4290	3.8576	9.1300e-003	0.8797	8.3400e-003	0.8881	0.2357	7.7800e-003	0.2435		928.4862	928.4862	0.0509		929.7576
Total	**0.6925**	**1.4339**	**3.8626**	**9.1600e-003**	**0.8797**	**8.7100e-003**	**0.8884**	**0.2357**	**8.1500e-003**	**0.2439**		**934.2899**	**934.2899**	**0.0510**	**1.1000e-004**	**935.5960**

	ROG	NOx	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	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/1/2022	8/12/2022	5	10	
2	Site Preparation	Site Preparation	8/26/2022	9/8/2022	5	10	
3	Grading	Grading	9/9/2022	10/20/2022	5	30	
4	Building Construction	Building Construction	10/21/2022	7/27/2023	5	200	
5	Paving	Paving	7/28/2023	8/3/2023	5	5	
6	Architectural Coating	Architectural Coating	8/4/2023	8/17/2023	5	10	

Acres of Grading (Site Preparation Phase): 5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 13,500; Non-Residential Outdoor: 4,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Goleta Train Depot Project - Santa Barbara-South of Santa Ynez Range County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
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
Demolition	4	10.00	0.00	181.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	1,875.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	3.00	1.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2022

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					3.9791	0.0000	3.9791	0.6025	0.0000	0.6025			0.0000			0.0000
Off-Road	0.7094	6.4138	7.4693	0.0120		0.3375	0.3375		0.3225	0.3225		1,147.9025	1,147.9025	0.2119		1,153.2001
Total	**0.7094**	**6.4138**	**7.4693**	**0.0120**	**3.9791**	**0.3375**	**4.3166**	**0.6025**	**0.3225**	**0.9251**		**1,147.9025**	**1,147.9025**	**0.2119**		**1,153.2001**

3.2 Demolition - 2022

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	0.1318	4.5865	1.5287	0.0134	0.3144	0.0173	0.3317	0.0860	0.0165	0.1025		1,509.9887	1,509.9887	0.1543		1,513.8469
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	0.0305	0.0221	0.2000	5.2000e-004	0.0632	3.8000e-004	0.0635	0.0168	3.5000e-004	0.0171		51.7295	51.7295	1.5000e-003		51.7670
Total	**0.1623**	**4.6086**	**1.7287**	**0.0140**	**0.3776**	**0.0177**	**0.3952**	**0.1028**	**0.0169**	**0.1196**		**1,561.7182**	**1,561.7182**	**0.1558**		**1,565.6140**

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					3.9791	0.0000	3.9791	0.6025	0.0000	0.6025			0.0000			0.0000
Off-Road	0.7094	6.4138	7.4693	0.0120		0.3375	0.3375		0.3225	0.3225	0.0000	1,147.9025	1,147.9025	0.2119		1,153.2001
Total	**0.7094**	**6.4138**	**7.4693**	**0.0120**	**3.9791**	**0.3375**	**4.3166**	**0.6025**	**0.3225**	**0.9251**	**0.0000**	**1,147.9025**	**1,147.9025**	**0.2119**		**1,153.2001**

3.2 Demolition - 2022

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	0.1318	4.5865	1.5287	0.0134	0.3144	0.0173	0.3317	0.0860	0.0165	0.1025		1,509.9887	1,509.9887	0.1543		1,513.8469
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	0.0305	0.0221	0.2000	5.2000e-004	0.0632	3.8000e-004	0.0635	0.0168	3.5000e-004	0.0171		51.7295	51.7295	1.5000e-003		51.7670
Total	**0.1623**	**4.6086**	**1.7287**	**0.0140**	**0.3776**	**0.0177**	**0.3952**	**0.1028**	**0.0169**	**0.1196**		**1,561.7182**	**1,561.7182**	**0.1558**		**1,565.6140**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5797	6.9332	3.9597	9.7300e-003		0.2573	0.2573		0.2367	0.2367		942.5179	942.5179	0.3048		950.1386
Total	**0.5797**	**6.9332**	**3.9597**	**9.7300e-003**	**0.5303**	**0.2573**	**0.7876**	**0.0573**	**0.2367**	**0.2940**		**942.5179**	**942.5179**	**0.3048**		**950.1386**

3.3 Site Preparation - 2022

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	0.0153	0.0110	0.1000	2.6000e-004	0.0316	1.9000e-004	0.0318	8.3800e-003	1.7000e-004	8.5500e-003		25.8647	25.8647	7.5000e-004		25.8835
Total	**0.0153**	**0.0110**	**0.1000**	**2.6000e-004**	**0.0316**	**1.9000e-004**	**0.0318**	**8.3800e-003**	**1.7000e-004**	**8.5500e-003**		**25.8647**	**25.8647**	**7.5000e-004**		**25.8835**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5797	6.9332	3.9597	9.7300e-003		0.2573	0.2573		0.2367	0.2367	0.0000	942.5179	942.5179	0.3048		950.1386
Total	**0.5797**	**6.9332**	**3.9597**	**9.7300e-003**	**0.5303**	**0.2573**	**0.7876**	**0.0573**	**0.2367**	**0.2940**	**0.0000**	**942.5179**	**942.5179**	**0.3048**		**950.1386**

3.3 Site Preparation - 2022

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	0.0153	0.0110	0.1000	2.6000e-004	0.0316	1.9000e-004	0.0318	8.3800e-003	1.7000e-004	8.5500e-003		25.8647	25.8647	7.5000e-004		25.8835
Total	**0.0153**	**0.0110**	**0.1000**	**2.6000e-004**	**0.0316**	**1.9000e-004**	**0.0318**	**8.3800e-003**	**1.7000e-004**	**8.5500e-003**		**25.8647**	**25.8647**	**7.5000e-004**		**25.8835**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.8266	0.0000	0.8266	0.4250	0.0000	0.4250			0.0000			0.0000
Off-Road	0.7094	6.4138	7.4693	0.0120		0.3375	0.3375		0.3225	0.3225		1,147.9025	1,147.9025	0.2119		1,153.2001
Total	**0.7094**	**6.4138**	**7.4693**	**0.0120**	**0.8266**	**0.3375**	**1.1641**	**0.4250**	**0.3225**	**0.7475**		**1,147.9025**	**1,147.9025**	**0.2119**		**1,153.2001**

3.4 Grading - 2022

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	0.4549	15.8373	5.2785	0.0464	1.0857	0.0596	1.1453	0.2970	0.0571	0.3540		5,214.0495	5,214.0495	0.5329		5,227.3720
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	0.0305	0.0221	0.2000	5.2000e-004	0.0632	3.8000e-004	0.0635	0.0168	3.5000e-004	0.0171		51.7295	51.7295	1.5000e-003		51.7670
Total	**0.4854**	**15.8594**	**5.4785**	**0.0469**	**1.1488**	**0.0600**	**1.2088**	**0.3137**	**0.0574**	**0.3711**		**5,265.7790**	**5,265.7790**	**0.5344**		**5,279.1390**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.8266	0.0000	0.8266	0.4250	0.0000	0.4250			0.0000			0.0000
Off-Road	0.7094	6.4138	7.4693	0.0120		0.3375	0.3375		0.3225	0.3225	0.0000	1,147.9025	1,147.9025	0.2119		1,153.2001
Total	**0.7094**	**6.4138**	**7.4693**	**0.0120**	**0.8266**	**0.3375**	**1.1641**	**0.4250**	**0.3225**	**0.7475**	**0.0000**	**1,147.9025**	**1,147.9025**	**0.2119**		**1,153.2001**

3.4 Grading - 2022

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	0.4549	15.8373	5.2785	0.0464	1.0857	0.0596	1.1453	0.2970	0.0571	0.3540		5,214.0495	5,214.0495	0.5329		5,227.3720
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	0.0305	0.0221	0.2000	5.2000e-004	0.0632	3.8000e-004	0.0635	0.0168	3.5000e-004	0.0171		51.7295	51.7295	1.5000e-003		51.7670
Total	**0.4854**	**15.8594**	**5.4785**	**0.0469**	**1.1488**	**0.0600**	**1.2088**	**0.3137**	**0.0574**	**0.3711**		**5,265.7790**	**5,265.7790**	**0.5344**		**5,279.1390**

3.5 Building Construction - 2022

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	0.6863	7.0258	7.1527	0.0114		0.3719	0.3719		0.3422	0.3422		1,103.9393	1,103.9393	0.3570		1,112.8652
Total	**0.6863**	**7.0258**	**7.1527**	**0.0114**		**0.3719**	**0.3719**		**0.3422**	**0.3422**		**1,103.9393**	**1,103.9393**	**0.3570**		**1,112.8652**

3.5 Building Construction - 2022

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	3.1600e-003	0.0951	0.0333	2.3000e-004	5.9200e-003	2.7000e-004	6.1900e-003	1.7000e-003	2.6000e-004	1.9700e-003		24.9303	24.9303	2.0200e-003		24.9806
Worker	9.1500e-003	6.6200e-003	0.0600	1.6000e-004	0.0190	1.1000e-004	0.0191	5.0300e-003	1.0000e-004	5.1300e-003		15.5188	15.5188	4.5000e-004		15.5301
Total	**0.0123**	**0.1017**	**0.0933**	**3.9000e-004**	**0.0249**	**3.8000e-004**	**0.0253**	**6.7300e-003**	**3.6000e-004**	**7.1000e-003**		**40.4491**	**40.4491**	**2.4700e-003**		**40.5107**

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	0.6863	7.0258	7.1527	0.0114		0.3719	0.3719		0.3422	0.3422	0.0000	1,103.9393	1,103.9393	0.3570		1,112.8652
Total	**0.6863**	**7.0258**	**7.1527**	**0.0114**		**0.3719**	**0.3719**		**0.3422**	**0.3422**	**0.0000**	**1,103.9393**	**1,103.9393**	**0.3570**		**1,112.8652**

3.5 Building Construction - 2022

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	3.1600e-003	0.0951	0.0333	2.3000e-004	5.9200e-003	2.7000e-004	6.1900e-003	1.7000e-003	2.6000e-004	1.9700e-003		24.9303	24.9303	2.0200e-003		24.9806
Worker	9.1500e-003	6.6200e-003	0.0600	1.6000e-004	0.0190	1.1000e-004	0.0191	5.0300e-003	1.0000e-004	5.1300e-003		15.5188	15.5188	4.5000e-004		15.5301
Total	**0.0123**	**0.1017**	**0.0933**	**3.9000e-004**	**0.0249**	**3.8000e-004**	**0.0253**	**6.7300e-003**	**3.6000e-004**	**7.1000e-003**		**40.4491**	**40.4491**	**2.4700e-003**		**40.5107**

3.5 Building Construction - 2023

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	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946		1,104.6089	1,104.6089	0.3573		1,113.5402
Total	**0.6322**	**6.4186**	**7.0970**	**0.0114**		**0.3203**	**0.3203**		**0.2946**	**0.2946**		**1,104.6089**	**1,104.6089**	**0.3573**		**1,113.5402**

3.5 Building Construction - 2023

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	2.4600e-003	0.0790	0.0299	2.2000e-004	5.9200e-003	1.3000e-004	6.0500e-003	1.7000e-003	1.2000e-004	1.8300e-003		24.4810	24.4810	1.9300e-003		24.5293
Worker	8.5600e-003	5.9300e-003	0.0547	1.5000e-004	0.0190	1.1000e-004	0.0191	5.0300e-003	1.0000e-004	5.1300e-003		14.9389	14.9389	4.0000e-004		14.9490
Total	**0.0110**	**0.0850**	**0.0846**	**3.7000e-004**	**0.0249**	**2.4000e-004**	**0.0251**	**6.7300e-003**	**2.2000e-004**	**6.9600e-003**		**39.4200**	**39.4200**	**2.3300e-003**		**39.4782**

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	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946	0.0000	1,104.6089	1,104.6089	0.3573		1,113.5402
Total	**0.6322**	**6.4186**	**7.0970**	**0.0114**		**0.3203**	**0.3203**		**0.2946**	**0.2946**	**0.0000**	**1,104.6089**	**1,104.6089**	**0.3573**		**1,113.5402**

3.5 Building Construction - 2023

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	2.4600e-003	0.0790	0.0299	2.2000e-004	5.9200e-003	1.3000e-004	6.0500e-003	1.7000e-003	1.2000e-004	1.8300e-003		24.4810	24.4810	1.9300e-003		24.5293
Worker	8.5600e-003	5.9300e-003	0.0547	1.5000e-004	0.0190	1.1000e-004	0.0191	5.0300e-003	1.0000e-004	5.1300e-003		14.9389	14.9389	4.0000e-004		14.9490
Total	**0.0110**	**0.0850**	**0.0846**	**3.7000e-004**	**0.0249**	**2.4000e-004**	**0.0251**	**6.7300e-003**	**2.2000e-004**	**6.9600e-003**		**39.4200**	**39.4200**	**2.3300e-003**		**39.4782**

3.6 Paving - 2023

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	0.6112	5.5046	7.0209	0.0113		0.2643	0.2643		0.2466	0.2466		1,036.0878	1,036.0878	0.3018		1,043.6331
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6112**	**5.5046**	**7.0209**	**0.0113**		**0.2643**	**0.2643**		**0.2466**	**0.2466**		**1,036.0878**	**1,036.0878**	**0.3018**		**1,043.6331**

3.6 Paving - 2023

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	0.0514	0.0356	0.3281	9.0000e-004	0.1137	6.6000e-004	0.1143	0.0302	6.1000e-004	0.0308		89.6336	89.6336	2.4100e-003		89.6938
Total	**0.0514**	**0.0356**	**0.3281**	**9.0000e-004**	**0.1137**	**6.6000e-004**	**0.1143**	**0.0302**	**6.1000e-004**	**0.0308**		**89.6336**	**89.6336**	**2.4100e-003**		**89.6938**

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	0.6112	5.5046	7.0209	0.0113		0.2643	0.2643		0.2466	0.2466	0.0000	1,036.0878	1,036.0878	0.3018		1,043.6331
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6112**	**5.5046**	**7.0209**	**0.0113**		**0.2643**	**0.2643**		**0.2466**	**0.2466**	**0.0000**	**1,036.0878**	**1,036.0878**	**0.3018**		**1,043.6331**

3.6 Paving - 2023

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	0.0514	0.0356	0.3281	9.0000e-004	0.1137	6.6000e-004	0.1143	0.0302	6.1000e-004	0.0308		89.6336	89.6336	2.4100e-003		89.6938
Total	**0.0514**	**0.0356**	**0.3281**	**9.0000e-004**	**0.1137**	**6.6000e-004**	**0.1143**	**0.0302**	**6.1000e-004**	**0.0308**		**89.6336**	**89.6336**	**2.4100e-003**		**89.6938**

3.7 Architectural Coating - 2023

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		Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.8575					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**21.0492**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.7 Architectural Coating - 2023

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	2.8500e-003	1.9800e-003	0.0182	5.0000e-005	6.3200e-003	4.0000e-005	6.3500e-003	1.6800e-003	3.0000e-005	1.7100e-003		4.9797	4.9797	1.3000e-004		4.9830
Total	**2.8500e-003**	**1.9800e-003**	**0.0182**	**5.0000e-005**	**6.3200e-003**	**4.0000e-005**	**6.3500e-003**	**1.6800e-003**	**3.0000e-005**	**1.7100e-003**		**4.9797**	**4.9797**	**1.3000e-004**		**4.9830**

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	20.8575					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**21.0492**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.7 Architectural Coating - 2023

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	2.8500e-003	1.9800e-003	0.0182	5.0000e-005	6.3200e-003	4.0000e-005	6.3500e-003	1.6800e-003	3.0000e-005	1.7100e-003		4.9797	4.9797	1.3000e-004		4.9830
Total	**2.8500e-003**	**1.9800e-003**	**0.0182**	**5.0000e-005**	**6.3200e-003**	**4.0000e-005**	**6.3500e-003**	**1.6800e-003**	**3.0000e-005**	**1.7100e-003**		**4.9797**	**4.9797**	**1.3000e-004**		**4.9830**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4422	1.4290	3.8576	9.1300e-003	0.8797	8.3400e-003	0.8881	0.2357	7.7800e-003	0.2435		928.4862	928.4862	0.0509		929.7576
Unmitigated	0.4422	1.4290	3.8576	9.1300e-003	0.8797	8.3400e-003	0.8881	0.2357	7.7800e-003	0.2435		928.4862	928.4862	0.0509		929.7576

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Strip Mall	351.00	351.00	351.00	413,250	413,250
Total	351.00	351.00	351.00	413,250	413,250

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
Strip Mall	6.60	5.50	6.40	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Strip Mall	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	5.3000e-004	4.8300e-003	4.0600e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.8018	5.8018	1.1000e-004	1.1000e-004	5.8363
NaturalGas Unmitigated	5.3000e-004	4.8300e-003	4.0600e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.8018	5.8018	1.1000e-004	1.1000e-004	5.8363

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					
Strip Mall	49.3151	5.3000e-004	4.8300e-003	4.0600e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.8018	5.8018	1.1000e-004	1.1000e-004	5.8363
Total		**5.3000e-004**	**4.8300e-003**	**4.0600e-003**	**3.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**		**5.8018**	**5.8018**	**1.1000e-004**	**1.1000e-004**	**5.8363**

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					
Strip Mall	0.0493151	5.3000e-004	4.8300e-003	4.0600e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.8018	5.8018	1.1000e-004	1.1000e-004	5.8363
Total		**5.3000e-004**	**4.8300e-003**	**4.0600e-003**	**3.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**		**5.8018**	**5.8018**	**1.1000e-004**	**1.1000e-004**	**5.8363**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2498	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Unmitigated	0.2498	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0571					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1926					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.0000e-005	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Total	**0.2498**	**1.0000e-005**	**9.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.9700e-003**	**1.9700e-003**	**1.0000e-005**		**2.1000e-003**

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	0.0571					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1926					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.0000e-005	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Total	**0.2498**	**1.0000e-005**	**9.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.9700e-003**	**1.9700e-003**	**1.0000e-005**		**2.1000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Goleta Train Depot Project

Santa Barbara-South of Santa Ynez Range County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	9.00	1000sqft	0.21	9,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	37
Climate Zone	8			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Retail strip mall would have similar energy and water use as a depot

Construction Phase - Extended per project schedule

Demolition -

Grading - Per initial engineering assessment

Vehicle Trips - Per daily trip estimates

Area Coating -

Construction Off-road Equipment Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	10.00
tblConstructionPhase	NumDays	2.00	30.00
tblConstructionPhase	NumDays	100.00	200.00
tblConstructionPhase	NumDays	5.00	10.00
tblGrading	MaterialExported	0.00	15,000.00
tblVehicleTrips	ST_TR	42.04	39.00
tblVehicleTrips	SU_TR	20.43	39.00
tblVehicleTrips	WD_TR	44.32	39.00

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					
2022	1.1799	22.1983	12.7329	0.0596	4.3566	0.3960	4.7113	0.7387	0.3784	1.1171	0.0000	6,488.4798	6,488.4798	0.7361	0.0000	6,506.8827
2023	21.0517	6.5033	7.3392	0.0122	0.1137	0.3205	0.3786	0.0302	0.2949	0.3016	0.0000	1,144.9899	1,144.9899	0.3595	0.0000	1,153.9775
Maximum	**21.0517**	**22.1983**	**12.7329**	**0.0596**	**4.3566**	**0.3960**	**4.7113**	**0.7387**	**0.3784**	**1.1171**	**0.0000**	**6,488.4798**	**6,488.4798**	**0.7361**	**0.0000**	**6,506.8827**

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					
2022	1.1799	22.1983	12.7329	0.0596	4.3566	0.3960	4.7113	0.7387	0.3784	1.1171	0.0000	6,488.4798	6,488.4798	0.7361	0.0000	6,506.8827
2023	21.0517	6.5033	7.3392	0.0122	0.1137	0.3205	0.3786	0.0302	0.2949	0.3016	0.0000	1,144.9899	1,144.9899	0.3595	0.0000	1,153.9775
Maximum	**21.0517**	**22.1983**	**12.7329**	**0.0596**	**4.3566**	**0.3960**	**4.7113**	**0.7387**	**0.3784**	**1.1171**	**0.0000**	**6,488.4798**	**6,488.4798**	**0.7361**	**0.0000**	**6,506.8827**

	ROG	NOx	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	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2498	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Energy	5.3000e-004	4.8300e-003	4.0600e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.8018	5.8018	1.1000e-004	1.1000e-004	5.8363
Mobile	0.4541	1.3940	3.5094	9.3500e-003	0.8797	8.2600e-003	0.8880	0.2357	7.7100e-003	0.2434		952.0808	952.0808	0.0485		953.2933
Total	**0.7045**	**1.3988**	**3.5144**	**9.3800e-003**	**0.8797**	**8.6300e-003**	**0.8884**	**0.2357**	**8.0800e-003**	**0.2438**		**957.8846**	**957.8846**	**0.0486**	**1.1000e-004**	**959.1316**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2498	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Energy	5.3000e-004	4.8300e-003	4.0600e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.8018	5.8018	1.1000e-004	1.1000e-004	5.8363
Mobile	0.4541	1.3940	3.5094	9.3500e-003	0.8797	8.2600e-003	0.8880	0.2357	7.7100e-003	0.2434		952.0808	952.0808	0.0485		953.2933
Total	**0.7045**	**1.3988**	**3.5144**	**9.3800e-003**	**0.8797**	**8.6300e-003**	**0.8884**	**0.2357**	**8.0800e-003**	**0.2438**		**957.8846**	**957.8846**	**0.0486**	**1.1000e-004**	**959.1316**

	ROG	NOx	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	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/1/2022	8/12/2022	5	10	
2	Site Preparation	Site Preparation	8/26/2022	9/8/2022	5	10	
3	Grading	Grading	9/9/2022	10/20/2022	5	30	
4	Building Construction	Building Construction	10/21/2022	7/27/2023	5	200	
5	Paving	Paving	7/28/2023	8/3/2023	5	5	
6	Architectural Coating	Architectural Coating	8/4/2023	8/17/2023	5	10	

Acres of Grading (Site Preparation Phase): 5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 13,500; Non-Residential Outdoor: 4,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Goleta Train Depot Project - Santa Barbara-South of Santa Ynez Range County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
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
Demolition	4	10.00	0.00	181.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	1,875.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	3.00	1.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2022

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					3.9791	0.0000	3.9791	0.6025	0.0000	0.6025			0.0000			0.0000
Off-Road	0.7094	6.4138	7.4693	0.0120		0.3375	0.3375		0.3225	0.3225		1,147.9025	1,147.9025	0.2119		1,153.2001
Total	**0.7094**	**6.4138**	**7.4693**	**0.0120**	**3.9791**	**0.3375**	**4.3166**	**0.6025**	**0.3225**	**0.9251**		**1,147.9025**	**1,147.9025**	**0.2119**		**1,153.2001**

3.2 Demolition - 2022

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	0.1284	4.5656	1.4683	0.0136	0.3144	0.0168	0.3312	0.0860	0.0161	0.1021		1,531.2959	1,531.2959	0.1514		1,535.0803
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	0.0270	0.0193	0.1935	5.3000e-004	0.0632	3.8000e-004	0.0635	0.0168	3.5000e-004	0.0171		52.9535	52.9535	1.5000e-003		52.9911
Total	**0.1554**	**4.5849**	**1.6618**	**0.0142**	**0.3776**	**0.0172**	**0.3948**	**0.1028**	**0.0164**	**0.1192**		**1,584.2494**	**1,584.2494**	**0.1529**		**1,588.0714**

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					3.9791	0.0000	3.9791	0.6025	0.0000	0.6025			0.0000			0.0000
Off-Road	0.7094	6.4138	7.4693	0.0120		0.3375	0.3375		0.3225	0.3225	0.0000	1,147.9025	1,147.9025	0.2119		1,153.2001
Total	**0.7094**	**6.4138**	**7.4693**	**0.0120**	**3.9791**	**0.3375**	**4.3166**	**0.6025**	**0.3225**	**0.9251**	**0.0000**	**1,147.9025**	**1,147.9025**	**0.2119**		**1,153.2001**

3.2 Demolition - 2022

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	0.1284	4.5656	1.4683	0.0136	0.3144	0.0168	0.3312	0.0860	0.0161	0.1021		1,531.2959	1,531.2959	0.1514		1,535.0803
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	0.0270	0.0193	0.1935	5.3000e-004	0.0632	3.8000e-004	0.0635	0.0168	3.5000e-004	0.0171		52.9535	52.9535	1.5000e-003		52.9911
Total	**0.1554**	**4.5849**	**1.6618**	**0.0142**	**0.3776**	**0.0172**	**0.3948**	**0.1028**	**0.0164**	**0.1192**		**1,584.2494**	**1,584.2494**	**0.1529**		**1,588.0714**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5797	6.9332	3.9597	9.7300e-003		0.2573	0.2573		0.2367	0.2367		942.5179	942.5179	0.3048		950.1386
Total	**0.5797**	**6.9332**	**3.9597**	**9.7300e-003**	**0.5303**	**0.2573**	**0.7876**	**0.0573**	**0.2367**	**0.2940**		**942.5179**	**942.5179**	**0.3048**		**950.1386**

3.3 Site Preparation - 2022

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	0.0135	9.6400e-003	0.0968	2.7000e-004	0.0316	1.9000e-004	0.0318	8.3800e-003	1.7000e-004	8.5500e-003		26.4768	26.4768	7.5000e-004		26.4956
Total	**0.0135**	**9.6400e-003**	**0.0968**	**2.7000e-004**	**0.0316**	**1.9000e-004**	**0.0318**	**8.3800e-003**	**1.7000e-004**	**8.5500e-003**		**26.4768**	**26.4768**	**7.5000e-004**		**26.4956**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5797	6.9332	3.9597	9.7300e-003		0.2573	0.2573		0.2367	0.2367	0.0000	942.5179	942.5179	0.3048		950.1386
Total	**0.5797**	**6.9332**	**3.9597**	**9.7300e-003**	**0.5303**	**0.2573**	**0.7876**	**0.0573**	**0.2367**	**0.2940**	**0.0000**	**942.5179**	**942.5179**	**0.3048**		**950.1386**

3.3 Site Preparation - 2022

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	0.0135	9.6400e-003	0.0968	2.7000e-004	0.0316	1.9000e-004	0.0318	8.3800e-003	1.7000e-004	8.5500e-003		26.4768	26.4768	7.5000e-004		26.4956
Total	**0.0135**	**9.6400e-003**	**0.0968**	**2.7000e-004**	**0.0316**	**1.9000e-004**	**0.0318**	**8.3800e-003**	**1.7000e-004**	**8.5500e-003**		**26.4768**	**26.4768**	**7.5000e-004**		**26.4956**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.8266	0.0000	0.8266	0.4250	0.0000	0.4250			0.0000			0.0000
Off-Road	0.7094	6.4138	7.4693	0.0120		0.3375	0.3375		0.3225	0.3225		1,147.9025	1,147.9025	0.2119		1,153.2001
Total	**0.7094**	**6.4138**	**7.4693**	**0.0120**	**0.8266**	**0.3375**	**1.1641**	**0.4250**	**0.3225**	**0.7475**		**1,147.9025**	**1,147.9025**	**0.2119**		**1,153.2001**

3.4 Grading - 2022

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	0.4435	15.7652	5.0700	0.0470	1.0857	0.0581	1.1437	0.2970	0.0555	0.3525		5,287.6238	5,287.6238	0.5227		5,300.6915
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	0.0270	0.0193	0.1935	5.3000e-004	0.0632	3.8000e-004	0.0635	0.0168	3.5000e-004	0.0171		52.9535	52.9535	1.5000e-003		52.9911
Total	**0.4705**	**15.7845**	**5.2635**	**0.0476**	**1.1488**	**0.0584**	**1.2073**	**0.3137**	**0.0559**	**0.3696**		**5,340.5773**	**5,340.5773**	**0.5242**		**5,353.6826**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.8266	0.0000	0.8266	0.4250	0.0000	0.4250			0.0000			0.0000
Off-Road	0.7094	6.4138	7.4693	0.0120		0.3375	0.3375		0.3225	0.3225	0.0000	1,147.9025	1,147.9025	0.2119		1,153.2001
Total	**0.7094**	**6.4138**	**7.4693**	**0.0120**	**0.8266**	**0.3375**	**1.1641**	**0.4250**	**0.3225**	**0.7475**	**0.0000**	**1,147.9025**	**1,147.9025**	**0.2119**		**1,153.2001**

3.4 Grading - 2022

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	0.4435	15.7652	5.0700	0.0470	1.0857	0.0581	1.1437	0.2970	0.0555	0.3525		5,287.6238	5,287.6238	0.5227		5,300.6915
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	0.0270	0.0193	0.1935	5.3000e-004	0.0632	3.8000e-004	0.0635	0.0168	3.5000e-004	0.0171		52.9535	52.9535	1.5000e-003		52.9911
Total	**0.4705**	**15.7845**	**5.2635**	**0.0476**	**1.1488**	**0.0584**	**1.2073**	**0.3137**	**0.0559**	**0.3696**		**5,340.5773**	**5,340.5773**	**0.5242**		**5,353.6826**

3.5 Building Construction - 2022

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	0.6863	7.0258	7.1527	0.0114		0.3719	0.3719		0.3422	0.3422		1,103.9393	1,103.9393	0.3570		1,112.8652
Total	**0.6863**	**7.0258**	**7.1527**	**0.0114**		**0.3719**	**0.3719**		**0.3422**	**0.3422**		**1,103.9393**	**1,103.9393**	**0.3570**		**1,112.8652**

3.5 Building Construction - 2022

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	2.9800e-003	0.0955	0.0302	2.3000e-004	5.9200e-003	2.6000e-004	6.1800e-003	1.7000e-003	2.5000e-004	1.9500e-003		25.5414	25.5414	1.9300e-003		25.5895
Worker	8.0900e-003	5.7900e-003	0.0581	1.6000e-004	0.0190	1.1000e-004	0.0191	5.0300e-003	1.0000e-004	5.1300e-003		15.8861	15.8861	4.5000e-004		15.8973
Total	**0.0111**	**0.1013**	**0.0883**	**3.9000e-004**	**0.0249**	**3.7000e-004**	**0.0252**	**6.7300e-003**	**3.5000e-004**	**7.0800e-003**		**41.4274**	**41.4274**	**2.3800e-003**		**41.4869**

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	0.6863	7.0258	7.1527	0.0114		0.3719	0.3719		0.3422	0.3422	0.0000	1,103.9393	1,103.9393	0.3570		1,112.8652
Total	**0.6863**	**7.0258**	**7.1527**	**0.0114**		**0.3719**	**0.3719**		**0.3422**	**0.3422**	**0.0000**	**1,103.9393**	**1,103.9393**	**0.3570**		**1,112.8652**

3.5 Building Construction - 2022

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	2.9800e-003	0.0955	0.0302	2.3000e-004	5.9200e-003	2.6000e-004	6.1800e-003	1.7000e-003	2.5000e-004	1.9500e-003		25.5414	25.5414	1.9300e-003		25.5895
Worker	8.0900e-003	5.7900e-003	0.0581	1.6000e-004	0.0190	1.1000e-004	0.0191	5.0300e-003	1.0000e-004	5.1300e-003		15.8861	15.8861	4.5000e-004		15.8973
Total	**0.0111**	**0.1013**	**0.0883**	**3.9000e-004**	**0.0249**	**3.7000e-004**	**0.0252**	**6.7300e-003**	**3.5000e-004**	**7.0800e-003**		**41.4274**	**41.4274**	**2.3800e-003**		**41.4869**

3.5 Building Construction - 2023

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	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946		1,104.6089	1,104.6089	0.3573		1,113.5402
Total	**0.6322**	**6.4186**	**7.0970**	**0.0114**		**0.3203**	**0.3203**		**0.2946**	**0.2946**		**1,104.6089**	**1,104.6089**	**0.3573**		**1,113.5402**

3.5 Building Construction - 2023

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	2.3100e-003	0.0795	0.0273	2.3000e-004	5.9200e-003	1.2000e-004	6.0500e-003	1.7000e-003	1.2000e-004	1.8200e-003		25.0888	25.0888	1.8500e-003		25.1350
Worker	7.5500e-003	5.1800e-003	0.0530	1.5000e-004	0.0190	1.1000e-004	0.0191	5.0300e-003	1.0000e-004	5.1300e-003		15.2923	15.2923	4.0000e-004		15.3023
Total	**9.8600e-003**	**0.0846**	**0.0804**	**3.8000e-004**	**0.0249**	**2.3000e-004**	**0.0251**	**6.7300e-003**	**2.2000e-004**	**6.9500e-003**		**40.3810**	**40.3810**	**2.2500e-003**		**40.4374**

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	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946	0.0000	1,104.6089	1,104.6089	0.3573		1,113.5402
Total	**0.6322**	**6.4186**	**7.0970**	**0.0114**		**0.3203**	**0.3203**		**0.2946**	**0.2946**	**0.0000**	**1,104.6089**	**1,104.6089**	**0.3573**		**1,113.5402**

3.5 Building Construction - 2023

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	2.3100e-003	0.0795	0.0273	2.3000e-004	5.9200e-003	1.2000e-004	6.0500e-003	1.7000e-003	1.2000e-004	1.8200e-003		25.0888	25.0888	1.8500e-003		25.1350
Worker	7.5500e-003	5.1800e-003	0.0530	1.5000e-004	0.0190	1.1000e-004	0.0191	5.0300e-003	1.0000e-004	5.1300e-003		15.2923	15.2923	4.0000e-004		15.3023
Total	**9.8600e-003**	**0.0846**	**0.0804**	**3.8000e-004**	**0.0249**	**2.3000e-004**	**0.0251**	**6.7300e-003**	**2.2000e-004**	**6.9500e-003**		**40.3810**	**40.3810**	**2.2500e-003**		**40.4374**

3.6 Paving - 2023

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	0.6112	5.5046	7.0209	0.0113		0.2643	0.2643		0.2466	0.2466		1,036.0878	1,036.0878	0.3018		1,043.6331
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6112**	**5.5046**	**7.0209**	**0.0113**		**0.2643**	**0.2643**		**0.2466**	**0.2466**		**1,036.0878**	**1,036.0878**	**0.3018**		**1,043.6331**

3.6 Paving - 2023

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	0.0453	0.0311	0.3182	9.2000e-004	0.1137	6.6000e-004	0.1143	0.0302	6.1000e-004	0.0308		91.7535	91.7535	2.4100e-003		91.8139
Total	**0.0453**	**0.0311**	**0.3182**	**9.2000e-004**	**0.1137**	**6.6000e-004**	**0.1143**	**0.0302**	**6.1000e-004**	**0.0308**		**91.7535**	**91.7535**	**2.4100e-003**		**91.8139**

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	0.6112	5.5046	7.0209	0.0113		0.2643	0.2643		0.2466	0.2466	0.0000	1,036.0878	1,036.0878	0.3018		1,043.6331
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6112**	**5.5046**	**7.0209**	**0.0113**		**0.2643**	**0.2643**		**0.2466**	**0.2466**	**0.0000**	**1,036.0878**	**1,036.0878**	**0.3018**		**1,043.6331**

3.6 Paving - 2023

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	0.0453	0.0311	0.3182	9.2000e-004	0.1137	6.6000e-004	0.1143	0.0302	6.1000e-004	0.0308		91.7535	91.7535	2.4100e-003		91.8139
Total	**0.0453**	**0.0311**	**0.3182**	**9.2000e-004**	**0.1137**	**6.6000e-004**	**0.1143**	**0.0302**	**6.1000e-004**	**0.0308**		**91.7535**	**91.7535**	**2.4100e-003**		**91.8139**

3.7 Architectural Coating - 2023

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	20.8575					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**21.0492**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.7 Architectural Coating - 2023

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	2.5200e-003	1.7300e-003	0.0177	5.0000e-005	6.3200e-003	4.0000e-005	6.3500e-003	1.6800e-003	3.0000e-005	1.7100e-003		5.0974	5.0974	1.3000e-004		5.1008
Total	**2.5200e-003**	**1.7300e-003**	**0.0177**	**5.0000e-005**	**6.3200e-003**	**4.0000e-005**	**6.3500e-003**	**1.6800e-003**	**3.0000e-005**	**1.7100e-003**		**5.0974**	**5.0974**	**1.3000e-004**		**5.1008**

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	20.8575					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**21.0492**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.7 Architectural Coating - 2023

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	2.5200e-003	1.7300e-003	0.0177	5.0000e-005	6.3200e-003	4.0000e-005	6.3500e-003	1.6800e-003	3.0000e-005	1.7100e-003		5.0974	5.0974	1.3000e-004		5.1008
Total	**2.5200e-003**	**1.7300e-003**	**0.0177**	**5.0000e-005**	**6.3200e-003**	**4.0000e-005**	**6.3500e-003**	**1.6800e-003**	**3.0000e-005**	**1.7100e-003**		**5.0974**	**5.0974**	**1.3000e-004**		**5.1008**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4541	1.3940	3.5094	9.3500e-003	0.8797	8.2600e-003	0.8880	0.2357	7.7100e-003	0.2434		952.0808	952.0808	0.0485		953.2933
Unmitigated	0.4541	1.3940	3.5094	9.3500e-003	0.8797	8.2600e-003	0.8880	0.2357	7.7100e-003	0.2434		952.0808	952.0808	0.0485		953.2933

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Strip Mall	351.00	351.00	351.00	413,250	413,250
Total	351.00	351.00	351.00	413,250	413,250

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
Strip Mall	6.60	5.50	6.40	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Strip Mall	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	5.3000e-004	4.8300e-003	4.0600e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.8018	5.8018	1.1000e-004	1.1000e-004	5.8363
NaturalGas Unmitigated	5.3000e-004	4.8300e-003	4.0600e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.8018	5.8018	1.1000e-004	1.1000e-004	5.8363

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					
Strip Mall	49.3151	5.3000e-004	4.8300e-003	4.0600e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.8018	5.8018	1.1000e-004	1.1000e-004	5.8363
Total		**5.3000e-004**	**4.8300e-003**	**4.0600e-003**	**3.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**		**5.8018**	**5.8018**	**1.1000e-004**	**1.1000e-004**	**5.8363**

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					
Strip Mall	0.0493151	5.3000e-004	4.8300e-003	4.0600e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.8018	5.8018	1.1000e-004	1.1000e-004	5.8363
Total		**5.3000e-004**	**4.8300e-003**	**4.0600e-003**	**3.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**		**5.8018**	**5.8018**	**1.1000e-004**	**1.1000e-004**	**5.8363**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2498	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Unmitigated	0.2498	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0571					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1926					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.0000e-005	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Total	**0.2498**	**1.0000e-005**	**9.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.9700e-003**	**1.9700e-003**	**1.0000e-005**		**2.1000e-003**

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	0.0571					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1926					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.0000e-005	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Total	**0.2498**	**1.0000e-005**	**9.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.9700e-003**	**1.9700e-003**	**1.0000e-005**		**2.1000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Goleta Train Depot Project

Santa Barbara-South of Santa Ynez Range County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	9.00	1000sqft	0.21	9,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	37
Climate Zone	8			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Retail strip mall would have similar energy and water use as a depot

Construction Phase - Extended per project schedule

Demolition -

Grading - Per initial engineering assessment

Vehicle Trips - Per daily trip estimates

Area Coating -

Construction Off-road Equipment Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	10.00
tblConstructionPhase	NumDays	2.00	30.00
tblConstructionPhase	NumDays	100.00	200.00
tblConstructionPhase	NumDays	5.00	10.00
tblGrading	MaterialExported	0.00	15,000.00
tblVehicleTrips	ST_TR	42.04	39.00
tblVehicleTrips	SU_TR	20.43	39.00
tblVehicleTrips	WD_TR	44.32	39.00

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					
2022	0.0429	0.6099	0.4431	1.3700e-003	0.0545	0.0185	0.0730	0.0150	0.0173	0.0323	0.0000	131.0793	131.0793	0.0214	0.0000	131.6153
2023	0.1548	0.5050	0.5623	9.2000e-004	2.1200e-003	0.0249	0.0270	5.7000e-004	0.0229	0.0235	0.0000	81.1973	81.1973	0.0251	0.0000	81.8240
Maximum	**0.1548**	**0.6099**	**0.5623**	**1.3700e-003**	**0.0545**	**0.0249**	**0.0730**	**0.0150**	**0.0229**	**0.0323**	**0.0000**	**131.0793**	**131.0793**	**0.0251**	**0.0000**	**131.6153**

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					
2022	0.0429	0.6099	0.4431	1.3700e-003	0.0545	0.0185	0.0730	0.0150	0.0173	0.0323	0.0000	131.0793	131.0793	0.0214	0.0000	131.6152
2023	0.1548	0.5050	0.5623	9.2000e-004	2.1200e-003	0.0249	0.0270	5.7000e-004	0.0229	0.0235	0.0000	81.1972	81.1972	0.0251	0.0000	81.8239
Maximum	**0.1548**	**0.6099**	**0.5623**	**1.3700e-003**	**0.0545**	**0.0249**	**0.0730**	**0.0150**	**0.0229**	**0.0323**	**0.0000**	**131.0793**	**131.0793**	**0.0251**	**0.0000**	**131.6152**

	ROG	NOx	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	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	8-1-2022	10-31-2022	0.4706	0.4706
2	11-1-2022	1-31-2023	0.2496	0.2496
3	2-1-2023	4-30-2023	0.2272	0.2272
4	5-1-2023	7-31-2023	0.2334	0.2334
5	8-1-2023	9-30-2023	0.1184	0.1184
		Highest	0.4706	0.4706

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0456	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6000e-004	1.6000e-004	0.0000	0.0000	1.7000e-004
Energy	1.0000e-004	8.8000e-004	7.4000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	33.7658	33.7658	1.3700e-003	3.0000e-004	33.8889
Mobile	0.0795	0.2607	0.6725	1.6700e-003	0.1567	1.5100e-003	0.1582	0.0421	1.4100e-003	0.0435	0.0000	154.0938	154.0938	8.1900e-003	0.0000	154.2986
Waste						0.0000	0.0000		0.0000	0.0000	1.9624	0.0000	1.9624	0.0973	0.0000	4.3952
Water						0.0000	0.0000		0.0000	0.0000	0.2359	1.6050	1.8409	8.8000e-004	5.3000e-004	2.0198
Total	**0.1252**	**0.2616**	**0.6734**	**1.6800e-003**	**0.1567**	**1.5800e-003**	**0.1582**	**0.0421**	**1.4800e-003**	**0.0435**	**2.1983**	**189.4647**	**191.6630**	**0.1078**	**8.3000e-004**	**194.6026**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0456	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6000e-004	1.6000e-004	0.0000	0.0000	1.7000e-004
Energy	1.0000e-004	8.8000e-004	7.4000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	33.7658	33.7658	1.3700e-003	3.0000e-004	33.8889
Mobile	0.0795	0.2607	0.6725	1.6700e-003	0.1567	1.5100e-003	0.1582	0.0421	1.4100e-003	0.0435	0.0000	154.0938	154.0938	8.1900e-003	0.0000	154.2986
Waste						0.0000	0.0000		0.0000	0.0000	1.9624	0.0000	1.9624	0.0973	0.0000	4.3952
Water						0.0000	0.0000		0.0000	0.0000	0.2359	1.6050	1.8409	8.8000e-004	5.3000e-004	2.0198
Total	**0.1252**	**0.2616**	**0.6734**	**1.6800e-003**	**0.1567**	**1.5800e-003**	**0.1582**	**0.0421**	**1.4800e-003**	**0.0435**	**2.1983**	**189.4647**	**191.6630**	**0.1078**	**8.3000e-004**	**194.6026**

	ROG	NOx	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	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Goleta Train Depot Project - Santa Barbara-South of Santa Ynez Range County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/1/2022	8/12/2022	5	10	
2	Site Preparation	Site Preparation	8/26/2022	9/8/2022	5	10	
3	Grading	Grading	9/9/2022	10/20/2022	5	30	
4	Building Construction	Building Construction	10/21/2022	7/27/2023	5	200	
5	Paving	Paving	7/28/2023	8/3/2023	5	5	
6	Architectural Coating	Architectural Coating	8/4/2023	8/17/2023	5	10	

Acres of Grading (Site Preparation Phase): 5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 13,500; Non-Residential Outdoor: 4,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Goleta Train Depot Project - Santa Barbara-South of Santa Ynez Range County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
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
Demolition	4	10.00	0.00	181.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	1,875.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	3.00	1.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2022

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					0.0199	0.0000	0.0199	3.0100e-003	0.0000	3.0100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5500e-003	0.0321	0.0374	6.0000e-005		1.6900e-003	1.6900e-003		1.6100e-003	1.6100e-003	0.0000	5.2068	5.2068	9.6000e-004	0.0000	5.2308
Total	**3.5500e-003**	**0.0321**	**0.0374**	**6.0000e-005**	**0.0199**	**1.6900e-003**	**0.0216**	**3.0100e-003**	**1.6100e-003**	**4.6200e-003**	**0.0000**	**5.2068**	**5.2068**	**9.6000e-004**	**0.0000**	**5.2308**

3.2 Demolition - 2022

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	6.5000e-004	0.0233	7.4700e-003	7.0000e-005	1.5400e-003	9.0000e-005	1.6300e-003	4.2000e-004	8.0000e-005	5.0000e-004	0.0000	6.9053	6.9053	6.9000e-004	0.0000	6.9226
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	1.4000e-004	1.1000e-004	9.8000e-004	0.0000	3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2350	0.2350	1.0000e-005	0.0000	0.2351
Total	**7.9000e-004**	**0.0234**	**8.4500e-003**	**7.0000e-005**	**1.8500e-003**	**9.0000e-005**	**1.9400e-003**	**5.0000e-004**	**8.0000e-005**	**5.8000e-004**	**0.0000**	**7.1402**	**7.1402**	**7.0000e-004**	**0.0000**	**7.1577**

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					0.0199	0.0000	0.0199	3.0100e-003	0.0000	3.0100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5500e-003	0.0321	0.0374	6.0000e-005		1.6900e-003	1.6900e-003		1.6100e-003	1.6100e-003	0.0000	5.2068	5.2068	9.6000e-004	0.0000	5.2308
Total	**3.5500e-003**	**0.0321**	**0.0374**	**6.0000e-005**	**0.0199**	**1.6900e-003**	**0.0216**	**3.0100e-003**	**1.6100e-003**	**4.6200e-003**	**0.0000**	**5.2068**	**5.2068**	**9.6000e-004**	**0.0000**	**5.2308**

3.2 Demolition - 2022

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	6.5000e-004	0.0233	7.4700e-003	7.0000e-005	1.5400e-003	9.0000e-005	1.6300e-003	4.2000e-004	8.0000e-005	5.0000e-004	0.0000	6.9053	6.9053	6.9000e-004	0.0000	6.9226
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	1.4000e-004	1.1000e-004	9.8000e-004	0.0000	3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2350	0.2350	1.0000e-005	0.0000	0.2351
Total	**7.9000e-004**	**0.0234**	**8.4500e-003**	**7.0000e-005**	**1.8500e-003**	**9.0000e-005**	**1.9400e-003**	**5.0000e-004**	**8.0000e-005**	**5.8000e-004**	**0.0000**	**7.1402**	**7.1402**	**7.0000e-004**	**0.0000**	**7.1577**

3.3 Site Preparation - 2022

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					2.6500e-003	0.0000	2.6500e-003	2.9000e-004	0.0000	2.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-003	0.0347	0.0198	5.0000e-005		1.2900e-003	1.2900e-003		1.1800e-003	1.1800e-003	0.0000	4.2752	4.2752	1.3800e-003	0.0000	4.3098
Total	**2.9000e-003**	**0.0347**	**0.0198**	**5.0000e-005**	**2.6500e-003**	**1.2900e-003**	**3.9400e-003**	**2.9000e-004**	**1.1800e-003**	**1.4700e-003**	**0.0000**	**4.2752**	**4.2752**	**1.3800e-003**	**0.0000**	**4.3098**

3.3 Site Preparation - 2022

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	7.0000e-005	5.0000e-005	4.9000e-004	0.0000	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1175	0.1175	0.0000	0.0000	0.1176
Total	**7.0000e-005**	**5.0000e-005**	**4.9000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1175**	**0.1175**	**0.0000**	**0.0000**	**0.1176**

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					2.6500e-003	0.0000	2.6500e-003	2.9000e-004	0.0000	2.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-003	0.0347	0.0198	5.0000e-005		1.2900e-003	1.2900e-003		1.1800e-003	1.1800e-003	0.0000	4.2752	4.2752	1.3800e-003	0.0000	4.3098
Total	**2.9000e-003**	**0.0347**	**0.0198**	**5.0000e-005**	**2.6500e-003**	**1.2900e-003**	**3.9400e-003**	**2.9000e-004**	**1.1800e-003**	**1.4700e-003**	**0.0000**	**4.2752**	**4.2752**	**1.3800e-003**	**0.0000**	**4.3098**

3.3 Site Preparation - 2022

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	7.0000e-005	5.0000e-005	4.9000e-004	0.0000	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1175	0.1175	0.0000	0.0000	0.1176
Total	**7.0000e-005**	**5.0000e-005**	**4.9000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1175**	**0.1175**	**0.0000**	**0.0000**	**0.1176**

3.4 Grading - 2022

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					0.0124	0.0000	0.0124	6.3700e-003	0.0000	6.3700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0106	0.0962	0.1120	1.8000e-004		5.0600e-003	5.0600e-003		4.8400e-003	4.8400e-003	0.0000	15.6204	15.6204	2.8800e-003	0.0000	15.6925
Total	**0.0106**	**0.0962**	**0.1120**	**1.8000e-004**	**0.0124**	**5.0600e-003**	**0.0175**	**6.3700e-003**	**4.8400e-003**	**0.0112**	**0.0000**	**15.6204**	**15.6204**	**2.8800e-003**	**0.0000**	**15.6925**

3.4 Grading - 2022

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	6.7300e-003	0.2414	0.0774	7.0000e-004	0.0160	8.8000e-004	0.0169	4.3800e-003	8.4000e-004	5.2200e-003	0.0000	71.5323	71.5323	7.1700e-003	0.0000	71.7116
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	4.2000e-004	3.2000e-004	2.9300e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.7049	0.7049	2.0000e-005	0.0000	0.7054
Total	**7.1500e-003**	**0.2417**	**0.0803**	**7.1000e-004**	**0.0169**	**8.9000e-004**	**0.0178**	**4.6300e-003**	**8.5000e-004**	**5.4700e-003**	**0.0000**	**72.2372**	**72.2372**	**7.1900e-003**	**0.0000**	**72.4170**

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					0.0124	0.0000	0.0124	6.3700e-003	0.0000	6.3700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0106	0.0962	0.1120	1.8000e-004		5.0600e-003	5.0600e-003		4.8400e-003	4.8400e-003	0.0000	15.6204	15.6204	2.8800e-003	0.0000	15.6925
Total	**0.0106**	**0.0962**	**0.1120**	**1.8000e-004**	**0.0124**	**5.0600e-003**	**0.0175**	**6.3700e-003**	**4.8400e-003**	**0.0112**	**0.0000**	**15.6204**	**15.6204**	**2.8800e-003**	**0.0000**	**15.6925**

3.4 Grading - 2022

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	6.7300e-003	0.2414	0.0774	7.0000e-004	0.0160	8.8000e-004	0.0169	4.3800e-003	8.4000e-004	5.2200e-003	0.0000	71.5323	71.5323	7.1700e-003	0.0000	71.7116
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	4.2000e-004	3.2000e-004	2.9300e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.7049	0.7049	2.0000e-005	0.0000	0.7054
Total	**7.1500e-003**	**0.2417**	**0.0803**	**7.1000e-004**	**0.0169**	**8.9000e-004**	**0.0178**	**4.6300e-003**	**8.5000e-004**	**5.4700e-003**	**0.0000**	**72.2372**	**72.2372**	**7.1900e-003**	**0.0000**	**72.4170**

3.5 Building Construction - 2022

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	0.0175	0.1792	0.1824	2.9000e-004		9.4800e-003	9.4800e-003		8.7300e-003	8.7300e-003	0.0000	25.5377	25.5377	8.2600e-003	0.0000	25.7442
Total	**0.0175**	**0.1792**	**0.1824**	**2.9000e-004**		**9.4800e-003**	**9.4800e-003**		**8.7300e-003**	**8.7300e-003**	**0.0000**	**25.5377**	**25.5377**	**8.2600e-003**	**0.0000**	**25.7442**

3.5 Building Construction - 2022

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	8.0000e-005	2.4600e-003	8.1000e-004	1.0000e-005	1.5000e-004	1.0000e-005	1.6000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5849	0.5849	5.0000e-005	0.0000	0.5861
Worker	2.1000e-004	1.7000e-004	1.4900e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3595	0.3595	1.0000e-005	0.0000	0.3598
Total	**2.9000e-004**	**2.6300e-003**	**2.3000e-003**	**1.0000e-005**	**6.2000e-004**	**1.0000e-005**	**6.4000e-004**	**1.7000e-004**	**1.0000e-005**	**1.8000e-004**	**0.0000**	**0.9444**	**0.9444**	**6.0000e-005**	**0.0000**	**0.9458**

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	0.0175	0.1792	0.1824	2.9000e-004		9.4800e-003	9.4800e-003		8.7300e-003	8.7300e-003	0.0000	25.5376	25.5376	8.2600e-003	0.0000	25.7441
Total	**0.0175**	**0.1792**	**0.1824**	**2.9000e-004**		**9.4800e-003**	**9.4800e-003**		**8.7300e-003**	**8.7300e-003**	**0.0000**	**25.5376**	**25.5376**	**8.2600e-003**	**0.0000**	**25.7441**

3.5 Building Construction - 2022

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	8.0000e-005	2.4600e-003	8.1000e-004	1.0000e-005	1.5000e-004	1.0000e-005	1.6000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5849	0.5849	5.0000e-005	0.0000	0.5861
Worker	2.1000e-004	1.7000e-004	1.4900e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3595	0.3595	1.0000e-005	0.0000	0.3598
Total	**2.9000e-004**	**2.6300e-003**	**2.3000e-003**	**1.0000e-005**	**6.2000e-004**	**1.0000e-005**	**6.4000e-004**	**1.7000e-004**	**1.0000e-005**	**1.8000e-004**	**0.0000**	**0.9444**	**0.9444**	**6.0000e-005**	**0.0000**	**0.9458**

3.5 Building Construction - 2023

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	0.0471	0.4782	0.5287	8.5000e-004		0.0239	0.0239		0.0220	0.0220	0.0000	74.6553	74.6553	0.0242	0.0000	75.2589
Total	**0.0471**	**0.4782**	**0.5287**	**8.5000e-004**		**0.0239**	**0.0239**		**0.0220**	**0.0220**	**0.0000**	**74.6553**	**74.6553**	**0.0242**	**0.0000**	**75.2589**

3.5 Building Construction - 2023

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	1.8000e-004	5.9700e-003	2.1400e-003	2.0000e-005	4.3000e-004	1.0000e-005	4.4000e-004	1.2000e-004	1.0000e-005	1.3000e-004	0.0000	1.6784	1.6784	1.3000e-004	0.0000	1.6816
Worker	5.8000e-004	4.3000e-004	3.9800e-003	1.0000e-005	1.3800e-003	1.0000e-005	1.3900e-003	3.7000e-004	1.0000e-005	3.7000e-004	0.0000	1.0110	1.0110	3.0000e-005	0.0000	1.0117
Total	**7.6000e-004**	**6.4000e-003**	**6.1200e-003**	**3.0000e-005**	**1.8100e-003**	**2.0000e-005**	**1.8300e-003**	**4.9000e-004**	**2.0000e-005**	**5.0000e-004**	**0.0000**	**2.6894**	**2.6894**	**1.6000e-004**	**0.0000**	**2.6933**

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	0.0471	0.4782	0.5287	8.5000e-004		0.0239	0.0239		0.0220	0.0220	0.0000	74.6552	74.6552	0.0242	0.0000	75.2588
Total	**0.0471**	**0.4782**	**0.5287**	**8.5000e-004**		**0.0239**	**0.0239**		**0.0220**	**0.0220**	**0.0000**	**74.6552**	**74.6552**	**0.0242**	**0.0000**	**75.2588**

3.5 Building Construction - 2023

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	1.8000e-004	5.9700e-003	2.1400e-003	2.0000e-005	4.3000e-004	1.0000e-005	4.4000e-004	1.2000e-004	1.0000e-005	1.3000e-004	0.0000	1.6784	1.6784	1.3000e-004	0.0000	1.6816
Worker	5.8000e-004	4.3000e-004	3.9800e-003	1.0000e-005	1.3800e-003	1.0000e-005	1.3900e-003	3.7000e-004	1.0000e-005	3.7000e-004	0.0000	1.0110	1.0110	3.0000e-005	0.0000	1.0117
Total	**7.6000e-004**	**6.4000e-003**	**6.1200e-003**	**3.0000e-005**	**1.8100e-003**	**2.0000e-005**	**1.8300e-003**	**4.9000e-004**	**2.0000e-005**	**5.0000e-004**	**0.0000**	**2.6894**	**2.6894**	**1.6000e-004**	**0.0000**	**2.6933**

3.6 Paving - 2023

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	1.5300e-003	0.0138	0.0176	3.0000e-005		6.6000e-004	6.6000e-004		6.2000e-004	6.2000e-004	0.0000	2.3498	2.3498	6.8000e-004	0.0000	2.3669
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.5300e-003**	**0.0138**	**0.0176**	**3.0000e-005**		**6.6000e-004**	**6.6000e-004**		**6.2000e-004**	**6.2000e-004**	**0.0000**	**2.3498**	**2.3498**	**6.8000e-004**	**0.0000**	**2.3669**

3.6 Paving - 2023

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	1.2000e-004	9.0000e-005	8.0000e-004	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	8.0000e-005	0.0000	0.2036	0.2036	1.0000e-005	0.0000	0.2037
Total	**1.2000e-004**	**9.0000e-005**	**8.0000e-004**	**0.0000**	**2.8000e-004**	**0.0000**	**2.8000e-004**	**7.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2036**	**0.2036**	**1.0000e-005**	**0.0000**	**0.2037**

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	1.5300e-003	0.0138	0.0176	3.0000e-005		6.6000e-004	6.6000e-004		6.2000e-004	6.2000e-004	0.0000	2.3498	2.3498	6.8000e-004	0.0000	2.3669
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.5300e-003**	**0.0138**	**0.0176**	**3.0000e-005**		**6.6000e-004**	**6.6000e-004**		**6.2000e-004**	**6.2000e-004**	**0.0000**	**2.3498**	**2.3498**	**6.8000e-004**	**0.0000**	**2.3669**

3.6 Paving - 2023

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	1.2000e-004	9.0000e-005	8.0000e-004	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	8.0000e-005	0.0000	0.2036	0.2036	1.0000e-005	0.0000	0.2037
Total	**1.2000e-004**	**9.0000e-005**	**8.0000e-004**	**0.0000**	**2.8000e-004**	**0.0000**	**2.8000e-004**	**7.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2036**	**0.2036**	**1.0000e-005**	**0.0000**	**0.2037**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1043					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	**0.1053**	**6.5100e-003**	**9.0600e-003**	**1.0000e-005**		**3.5000e-004**	**3.5000e-004**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2785**

3.7 Architectural Coating - 2023

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	1.0000e-005	1.0000e-005	9.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**9.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1043					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	**0.1053**	**6.5100e-003**	**9.0600e-003**	**1.0000e-005**		**3.5000e-004**	**3.5000e-004**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2785**

3.7 Architectural Coating - 2023

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	1.0000e-005	1.0000e-005	9.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**9.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0795	0.2607	0.6725	1.6700e-003	0.1567	1.5100e-003	0.1582	0.0421	1.4100e-003	0.0435	0.0000	154.0938	154.0938	8.1900e-003	0.0000	154.2986
Unmitigated	0.0795	0.2607	0.6725	1.6700e-003	0.1567	1.5100e-003	0.1582	0.0421	1.4100e-003	0.0435	0.0000	154.0938	154.0938	8.1900e-003	0.0000	154.2986

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Strip Mall	351.00	351.00	351.00	413,250	413,250
Total	351.00	351.00	351.00	413,250	413,250

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
Strip Mall	6.60	5.50	6.40	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Strip Mall	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	32.8053	32.8053	1.3500e-003	2.8000e-004	32.9226
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	32.8053	32.8053	1.3500e-003	2.8000e-004	32.9226
NaturalGas Mitigated	1.0000e-004	8.8000e-004	7.4000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9606	0.9606	2.0000e-005	2.0000e-005	0.9663
NaturalGas Unmitigated	1.0000e-004	8.8000e-004	7.4000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9606	0.9606	2.0000e-005	2.0000e-005	0.9663

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					
Strip Mall	18000	1.0000e-004	8.8000e-004	7.4000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9606	0.9606	2.0000e-005	2.0000e-005	0.9663
Total		**1.0000e-004**	**8.8000e-004**	**7.4000e-004**	**1.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.9606**	**0.9606**	**2.0000e-005**	**2.0000e-005**	**0.9663**

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					
Strip Mall	18000	1.0000e-004	8.8000e-004	7.4000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9606	0.9606	2.0000e-005	2.0000e-005	0.9663
Total		**1.0000e-004**	**8.8000e-004**	**7.4000e-004**	**1.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.9606**	**0.9606**	**2.0000e-005**	**2.0000e-005**	**0.9663**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Strip Mall	102960	32.8053	1.3500e-003	2.8000e-004	32.9226
Total		**32.8053**	**1.3500e-003**	**2.8000e-004**	**32.9226**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Strip Mall	102960	32.8053	1.3500e-003	2.8000e-004	32.9226
Total		**32.8053**	**1.3500e-003**	**2.8000e-004**	**32.9226**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0456	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6000e-004	1.6000e-004	0.0000	0.0000	1.7000e-004
Unmitigated	0.0456	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6000e-004	1.6000e-004	0.0000	0.0000	1.7000e-004

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	0.0104					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0352					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6000e-004	1.6000e-004	0.0000	0.0000	1.7000e-004
Total	**0.0456**	**0.0000**	**8.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.6000e-004**	**1.6000e-004**	**0.0000**	**0.0000**	**1.7000e-004**

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	0.0104					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0352					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6000e-004	1.6000e-004	0.0000	0.0000	1.7000e-004
Total	**0.0456**	**0.0000**	**8.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.6000e-004**	**1.6000e-004**	**0.0000**	**0.0000**	**1.7000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.8409	8.8000e-004	5.3000e-004	2.0198
Unmitigated	1.8409	8.8000e-004	5.3000e-004	2.0198

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Strip Mall	0.666653 / 0.408594	1.8409	8.8000e-004	5.3000e-004	2.0198
Total		**1.8409**	**8.8000e-004**	**5.3000e-004**	**2.0198**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Strip Mall	0.666653 / 0.408594	1.8409	8.8000e-004	5.3000e-004	2.0198
Total		**1.8409**	**8.8000e-004**	**5.3000e-004**	**2.0198**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.9624	0.0973	0.0000	4.3952
Unmitigated	1.9624	0.0973	0.0000	4.3952

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Strip Mall	9.45	1.9624	0.0973	0.0000	4.3952
Total		**1.9624**	**0.0973**	**0.0000**	**4.3952**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Strip Mall	9.45	1.9624	0.0973	0.0000	4.3952
Total		**1.9624**	**0.0973**	**0.0000**	**4.3952**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Goleta Train Depot Project post 2020

Santa Barbara-South of Santa Ynez Range County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	9.00	1000sqft	0.21	9,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	37
Climate Zone	8			**Operational Year**	2030
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	353.65	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Goleta Train Depot Project post 2020 - Santa Barbara-South of Santa Ynez Range County, Annual

Project Characteristics - Intensity factors changed based on percentage of renewables

Land Use - Land use of retail strip mall has similar electricity and water use as a train depot

Construction Phase - Extended per construction schedule

Grading -

Demolition -

Vehicle Trips - Per estimated daily trips

Energy Use -

Construction Off-road Equipment Mitigation -

Energy Mitigation - per Title 24

Water Mitigation - per Title 24

Goleta Train Depot Project post 2020 - Santa Barbara-South of Santa Ynez Range County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	NumDays	100.00	200.00
tblConstructionPhase	NumDays	2.00	30.00
tblConstructionPhase	NumDays	1.00	10.00
tblConstructionPhase	PhaseEndDate	1/18/2023	8/4/2023
tblConstructionPhase	PhaseEndDate	1/4/2023	7/14/2023
tblConstructionPhase	PhaseEndDate	8/17/2022	10/7/2022
tblConstructionPhase	PhaseEndDate	1/11/2023	7/21/2023
tblConstructionPhase	PhaseEndDate	8/15/2022	8/26/2022
tblConstructionPhase	PhaseStartDate	1/12/2023	7/24/2023
tblConstructionPhase	PhaseStartDate	8/18/2022	10/10/2022
tblConstructionPhase	PhaseStartDate	8/16/2022	8/29/2022
tblConstructionPhase	PhaseStartDate	1/5/2023	7/17/2023
tblGrading	MaterialExported	0.00	15,000.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	353.65
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	42.04	39.00
tblVehicleTrips	SU_TR	20.43	39.00
tblVehicleTrips	WD_TR	44.32	39.00

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					
2022	0.0460	0.6420	0.4757	1.4200e-003	0.0546	0.0202	0.0748	0.0150	0.0188	0.0339	0.0000	135.7526	135.7526	0.0229	0.0000	136.3253
2023	0.1519	0.4757	0.5300	8.7000e-004	2.0100e-003	0.0235	0.0255	5.4000e-004	0.0216	0.0222	0.0000	76.5255	76.5255	0.0236	0.0000	77.1154
Maximum	**0.1519**	**0.6420**	**0.5300**	**1.4200e-003**	**0.0546**	**0.0235**	**0.0748**	**0.0150**	**0.0216**	**0.0339**	**0.0000**	**135.7526**	**135.7526**	**0.0236**	**0.0000**	**136.3253**

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					
2022	0.0460	0.6420	0.4757	1.4200e-003	0.0354	0.0202	0.0555	9.7200e-003	0.0188	0.0286	0.0000	135.7526	135.7526	0.0229	0.0000	136.3252
2023	0.1519	0.4757	0.5300	8.7000e-004	2.0100e-003	0.0235	0.0255	5.4000e-004	0.0216	0.0222	0.0000	76.5254	76.5254	0.0236	0.0000	77.1154
Maximum	**0.1519**	**0.6420**	**0.5300**	**1.4200e-003**	**0.0354**	**0.0235**	**0.0555**	**9.7200e-003**	**0.0216**	**0.0286**	**0.0000**	**135.7526**	**135.7526**	**0.0236**	**0.0000**	**136.3252**

	ROG	NOx	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	**0.00**	**0.00**	**0.00**	**0.00**	**33.96**	**0.00**	**19.18**	**34.15**	**0.00**	**9.49**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Goleta Train Depot Project post 2020 - Santa Barbara-South of Santa Ynez Range County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	8-1-2022	10-31-2022	0.4842	0.4842
2	11-1-2022	1-31-2023	0.2496	0.2496
3	2-1-2023	4-30-2023	0.2272	0.2272
4	5-1-2023	7-31-2023	0.2663	0.2663
5	8-1-2023	9-30-2023	0.0319	0.0319
		Highest	0.4842	0.4842

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0456	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6000e-004	1.6000e-004	0.0000	0.0000	1.7000e-004
Energy	1.0000e-004	8.8000e-004	7.4000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	17.4767	17.4767	7.2000e-004	1.6000e-004	17.5416
Mobile	0.0559	0.2156	0.4537	1.4200e-003	0.1564	1.0500e-003	0.1574	0.0419	9.8000e-004	0.0429	0.0000	131.9361	131.9361	6.9400e-003	0.0000	132.1096
Waste						0.0000	0.0000		0.0000	0.0000	1.9624	0.0000	1.9624	0.0973	0.0000	4.3952
Water						0.0000	0.0000		0.0000	0.0000	0.2359	0.8081	1.0439	8.5000e-004	5.2000e-004	1.2200
Total	**0.1016**	**0.2165**	**0.4545**	**1.4300e-003**	**0.1564**	**1.1200e-003**	**0.1575**	**0.0419**	**1.0500e-003**	**0.0430**	**2.1983**	**150.2210**	**152.4193**	**0.1058**	**6.8000e-004**	**155.2665**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0456	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6000e-004	1.6000e-004	0.0000	0.0000	1.7000e-004
Energy	8.0000e-005	7.6000e-004	6.4000e-004	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	16.0708	16.0708	6.6000e-004	1.4000e-004	16.1304
Mobile	0.0559	0.2156	0.4537	1.4200e-003	0.1564	1.0500e-003	0.1574	0.0419	9.8000e-004	0.0429	0.0000	131.9361	131.9361	6.9400e-003	0.0000	132.1096
Waste						0.0000	0.0000		0.0000	0.0000	1.9624	0.0000	1.9624	0.0973	0.0000	4.3952
Water						0.0000	0.0000		0.0000	0.0000	0.1887	0.6923	0.8810	6.8000e-004	4.2000e-004	1.0220
Total	**0.1016**	**0.2164**	**0.4544**	**1.4200e-003**	**0.1564**	**1.1100e-003**	**0.1575**	**0.0419**	**1.0400e-003**	**0.0430**	**2.1511**	**148.6994**	**150.8505**	**0.1056**	**5.6000e-004**	**153.6573**

	ROG	NOx	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	**0.02**	**0.06**	**0.02**	**0.70**	**0.00**	**0.89**	**0.01**	**0.00**	**0.95**	**0.02**	**2.15**	**1.01**	**1.03**	**0.22**	**17.65**	**1.04**

3.0 Construction Detail

Construction Phase

Goleta Train Depot Project post 2020 - Santa Barbara-South of Santa Ynez Range County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/1/2022	8/12/2022	5	10	
2	Site Preparation	Site Preparation	8/13/2022	8/26/2022	5	10	
3	Grading	Grading	8/29/2022	10/7/2022	5	30	
4	Building Construction	Building Construction	10/10/2022	7/14/2023	5	200	
5	Paving	Paving	7/17/2023	7/21/2023	5	5	
6	Architectural Coating	Architectural Coating	7/24/2023	8/4/2023	5	10	

Acres of Grading (Site Preparation Phase): 5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 13,500; Non-Residential Outdoor: 4,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Goleta Train Depot Project post 2020 - Santa Barbara-South of Santa Ynez Range County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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
Architectural Coating	1	1.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	3.00	1.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	4	10.00	0.00	181.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	1,875.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2022

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					0.0199	0.0000	0.0199	3.0100e-003	0.0000	3.0100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5500e-003	0.0321	0.0374	6.0000e-005		1.6900e-003	1.6900e-003		1.6100e-003	1.6100e-003	0.0000	5.2068	5.2068	9.6000e-004	0.0000	5.2308
Total	**3.5500e-003**	**0.0321**	**0.0374**	**6.0000e-005**	**0.0199**	**1.6900e-003**	**0.0216**	**3.0100e-003**	**1.6100e-003**	**4.6200e-003**	**0.0000**	**5.2068**	**5.2068**	**9.6000e-004**	**0.0000**	**5.2308**

3.2 Demolition - 2022

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	6.5000e-004	0.0233	7.4700e-003	7.0000e-005	1.5400e-003	9.0000e-005	1.6300e-003	4.2000e-004	8.0000e-005	5.0000e-004	0.0000	6.9053	6.9053	6.9000e-004	0.0000	6.9226
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	1.4000e-004	1.1000e-004	9.8000e-004	0.0000	3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2350	0.2350	1.0000e-005	0.0000	0.2351
Total	**7.9000e-004**	**0.0234**	**8.4500e-003**	**7.0000e-005**	**1.8500e-003**	**9.0000e-005**	**1.9400e-003**	**5.0000e-004**	**8.0000e-005**	**5.8000e-004**	**0.0000**	**7.1402**	**7.1402**	**7.0000e-004**	**0.0000**	**7.1577**

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					8.9500e-003	0.0000	8.9500e-003	1.3600e-003	0.0000	1.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5500e-003	0.0321	0.0374	6.0000e-005		1.6900e-003	1.6900e-003		1.6100e-003	1.6100e-003	0.0000	5.2068	5.2068	9.6000e-004	0.0000	5.2308
Total	**3.5500e-003**	**0.0321**	**0.0374**	**6.0000e-005**	**8.9500e-003**	**1.6900e-003**	**0.0106**	**1.3600e-003**	**1.6100e-003**	**2.9700e-003**	**0.0000**	**5.2068**	**5.2068**	**9.6000e-004**	**0.0000**	**5.2308**

3.2 Demolition - 2022

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	6.5000e-004	0.0233	7.4700e-003	7.0000e-005	1.5400e-003	9.0000e-005	1.6300e-003	4.2000e-004	8.0000e-005	5.0000e-004	0.0000	6.9053	6.9053	6.9000e-004	0.0000	6.9226
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	1.4000e-004	1.1000e-004	9.8000e-004	0.0000	3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2350	0.2350	1.0000e-005	0.0000	0.2351
Total	**7.9000e-004**	**0.0234**	**8.4500e-003**	**7.0000e-005**	**1.8500e-003**	**9.0000e-005**	**1.9400e-003**	**5.0000e-004**	**8.0000e-005**	**5.8000e-004**	**0.0000**	**7.1402**	**7.1402**	**7.0000e-004**	**0.0000**	**7.1577**

3.3 Site Preparation - 2022

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					2.6500e-003	0.0000	2.6500e-003	2.9000e-004	0.0000	2.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-003	0.0347	0.0198	5.0000e-005		1.2900e-003	1.2900e-003		1.1800e-003	1.1800e-003	0.0000	4.2752	4.2752	1.3800e-003	0.0000	4.3098
Total	**2.9000e-003**	**0.0347**	**0.0198**	**5.0000e-005**	**2.6500e-003**	**1.2900e-003**	**3.9400e-003**	**2.9000e-004**	**1.1800e-003**	**1.4700e-003**	**0.0000**	**4.2752**	**4.2752**	**1.3800e-003**	**0.0000**	**4.3098**

3.3 Site Preparation - 2022

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	7.0000e-005	5.0000e-005	4.9000e-004	0.0000	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1175	0.1175	0.0000	0.0000	0.1176
Total	**7.0000e-005**	**5.0000e-005**	**4.9000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1175**	**0.1175**	**0.0000**	**0.0000**	**0.1176**

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					1.1900e-003	0.0000	1.1900e-003	1.3000e-004	0.0000	1.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-003	0.0347	0.0198	5.0000e-005		1.2900e-003	1.2900e-003		1.1800e-003	1.1800e-003	0.0000	4.2752	4.2752	1.3800e-003	0.0000	4.3098
Total	**2.9000e-003**	**0.0347**	**0.0198**	**5.0000e-005**	**1.1900e-003**	**1.2900e-003**	**2.4800e-003**	**1.3000e-004**	**1.1800e-003**	**1.3100e-003**	**0.0000**	**4.2752**	**4.2752**	**1.3800e-003**	**0.0000**	**4.3098**

3.3 Site Preparation - 2022

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	7.0000e-005	5.0000e-005	4.9000e-004	0.0000	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1175	0.1175	0.0000	0.0000	0.1176
Total	**7.0000e-005**	**5.0000e-005**	**4.9000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1175**	**0.1175**	**0.0000**	**0.0000**	**0.1176**

3.4 Grading - 2022

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					0.0124	0.0000	0.0124	6.3700e-003	0.0000	6.3700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0106	0.0962	0.1120	1.8000e-004		5.0600e-003	5.0600e-003		4.8400e-003	4.8400e-003	0.0000	15.6204	15.6204	2.8800e-003	0.0000	15.6925
Total	**0.0106**	**0.0962**	**0.1120**	**1.8000e-004**	**0.0124**	**5.0600e-003**	**0.0175**	**6.3700e-003**	**4.8400e-003**	**0.0112**	**0.0000**	**15.6204**	**15.6204**	**2.8800e-003**	**0.0000**	**15.6925**

3.4 Grading - 2022

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	6.7300e-003	0.2414	0.0774	7.0000e-004	0.0160	8.8000e-004	0.0169	4.3800e-003	8.4000e-004	5.2200e-003	0.0000	71.5323	71.5323	7.1700e-003	0.0000	71.7116
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	4.2000e-004	3.2000e-004	2.9300e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.7049	0.7049	2.0000e-005	0.0000	0.7054
Total	**7.1500e-003**	**0.2417**	**0.0803**	**7.1000e-004**	**0.0169**	**8.9000e-004**	**0.0178**	**4.6300e-003**	**8.5000e-004**	**5.4700e-003**	**0.0000**	**72.2372**	**72.2372**	**7.1900e-003**	**0.0000**	**72.4170**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.5800e-003	0.0000	5.5800e-003	2.8700e-003	0.0000	2.8700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0106	0.0962	0.1120	1.8000e-004		5.0600e-003	5.0600e-003		4.8400e-003	4.8400e-003	0.0000	15.6204	15.6204	2.8800e-003	0.0000	15.6925
Total	**0.0106**	**0.0962**	**0.1120**	**1.8000e-004**	**5.5800e-003**	**5.0600e-003**	**0.0106**	**2.8700e-003**	**4.8400e-003**	**7.7100e-003**	**0.0000**	**15.6204**	**15.6204**	**2.8800e-003**	**0.0000**	**15.6925**

3.4 Grading - 2022

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	6.7300e-003	0.2414	0.0774	7.0000e-004	0.0160	8.8000e-004	0.0169	4.3800e-003	8.4000e-004	5.2200e-003	0.0000	71.5323	71.5323	7.1700e-003	0.0000	71.7116
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	4.2000e-004	3.2000e-004	2.9300e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.7049	0.7049	2.0000e-005	0.0000	0.7054
Total	**7.1500e-003**	**0.2417**	**0.0803**	**7.1000e-004**	**0.0169**	**8.9000e-004**	**0.0178**	**4.6300e-003**	**8.5000e-004**	**5.4700e-003**	**0.0000**	**72.2372**	**72.2372**	**7.1900e-003**	**0.0000**	**72.4170**

3.5 Building Construction - 2022

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	0.0206	0.2108	0.2146	3.4000e-004		0.0112	0.0112		0.0103	0.0103	0.0000	30.0443	30.0443	9.7200e-003	0.0000	30.2872
Total	**0.0206**	**0.2108**	**0.2146**	**3.4000e-004**		**0.0112**	**0.0112**		**0.0103**	**0.0103**	**0.0000**	**30.0443**	**30.0443**	**9.7200e-003**	**0.0000**	**30.2872**

3.5 Building Construction - 2022

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	9.0000e-005	2.8900e-003	9.5000e-004	1.0000e-005	1.7000e-004	1.0000e-005	1.8000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.6881	0.6881	5.0000e-005	0.0000	0.6895
Worker	2.5000e-004	1.9000e-004	1.7600e-003	0.0000	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4229	0.4229	1.0000e-005	0.0000	0.4232
Total	**3.4000e-004**	**3.0800e-003**	**2.7100e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.4000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**1.1111**	**1.1111**	**6.0000e-005**	**0.0000**	**1.1127**

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	0.0206	0.2108	0.2146	3.4000e-004		0.0112	0.0112		0.0103	0.0103	0.0000	30.0443	30.0443	9.7200e-003	0.0000	30.2872
Total	**0.0206**	**0.2108**	**0.2146**	**3.4000e-004**		**0.0112**	**0.0112**		**0.0103**	**0.0103**	**0.0000**	**30.0443**	**30.0443**	**9.7200e-003**	**0.0000**	**30.2872**

3.5 Building Construction - 2022

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	9.0000e-005	2.8900e-003	9.5000e-004	1.0000e-005	1.7000e-004	1.0000e-005	1.8000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.6881	0.6881	5.0000e-005	0.0000	0.6895
Worker	2.5000e-004	1.9000e-004	1.7600e-003	0.0000	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4229	0.4229	1.0000e-005	0.0000	0.4232
Total	**3.4000e-004**	**3.0800e-003**	**2.7100e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.4000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**1.1111**	**1.1111**	**6.0000e-005**	**0.0000**	**1.1127**

3.5 Building Construction - 2023

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	0.0443	0.4493	0.4968	8.0000e-004		0.0224	0.0224		0.0206	0.0206	0.0000	70.1459	70.1459	0.0227	0.0000	70.7131
Total	**0.0443**	**0.4493**	**0.4968**	**8.0000e-004**		**0.0224**	**0.0224**		**0.0206**	**0.0206**	**0.0000**	**70.1459**	**70.1459**	**0.0227**	**0.0000**	**70.7131**

3.5 Building Construction - 2023

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	1.7000e-004	5.6100e-003	2.0100e-003	2.0000e-005	4.1000e-004	1.0000e-005	4.2000e-004	1.2000e-004	1.0000e-005	1.3000e-004	0.0000	1.5770	1.5770	1.2000e-004	0.0000	1.5800
Worker	5.4000e-004	4.1000e-004	3.7400e-003	1.0000e-005	1.3000e-003	1.0000e-005	1.3000e-003	3.4000e-004	1.0000e-005	3.5000e-004	0.0000	0.9500	0.9500	3.0000e-005	0.0000	0.9506
Total	**7.1000e-004**	**6.0200e-003**	**5.7500e-003**	**3.0000e-005**	**1.7100e-003**	**2.0000e-005**	**1.7200e-003**	**4.6000e-004**	**2.0000e-005**	**4.8000e-004**	**0.0000**	**2.5270**	**2.5270**	**1.5000e-004**	**0.0000**	**2.5306**

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	0.0443	0.4493	0.4968	8.0000e-004		0.0224	0.0224		0.0206	0.0206	0.0000	70.1458	70.1458	0.0227	0.0000	70.7130
Total	**0.0443**	**0.4493**	**0.4968**	**8.0000e-004**		**0.0224**	**0.0224**		**0.0206**	**0.0206**	**0.0000**	**70.1458**	**70.1458**	**0.0227**	**0.0000**	**70.7130**

3.5 Building Construction - 2023

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	1.7000e-004	5.6100e-003	2.0100e-003	2.0000e-005	4.1000e-004	1.0000e-005	4.2000e-004	1.2000e-004	1.0000e-005	1.3000e-004	0.0000	1.5770	1.5770	1.2000e-004	0.0000	1.5800
Worker	5.4000e-004	4.1000e-004	3.7400e-003	1.0000e-005	1.3000e-003	1.0000e-005	1.3000e-003	3.4000e-004	1.0000e-005	3.5000e-004	0.0000	0.9500	0.9500	3.0000e-005	0.0000	0.9506
Total	**7.1000e-004**	**6.0200e-003**	**5.7500e-003**	**3.0000e-005**	**1.7100e-003**	**2.0000e-005**	**1.7200e-003**	**4.6000e-004**	**2.0000e-005**	**4.8000e-004**	**0.0000**	**2.5270**	**2.5270**	**1.5000e-004**	**0.0000**	**2.5306**

3.6 Paving - 2023

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	1.5300e-003	0.0138	0.0176	3.0000e-005		6.6000e-004	6.6000e-004		6.2000e-004	6.2000e-004	0.0000	2.3498	2.3498	6.8000e-004	0.0000	2.3669
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.5300e-003**	**0.0138**	**0.0176**	**3.0000e-005**		**6.6000e-004**	**6.6000e-004**		**6.2000e-004**	**6.2000e-004**	**0.0000**	**2.3498**	**2.3498**	**6.8000e-004**	**0.0000**	**2.3669**

3.6 Paving - 2023

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	1.2000e-004	9.0000e-005	8.0000e-004	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	8.0000e-005	0.0000	0.2036	0.2036	1.0000e-005	0.0000	0.2037
Total	**1.2000e-004**	**9.0000e-005**	**8.0000e-004**	**0.0000**	**2.8000e-004**	**0.0000**	**2.8000e-004**	**7.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2036**	**0.2036**	**1.0000e-005**	**0.0000**	**0.2037**

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	1.5300e-003	0.0138	0.0176	3.0000e-005		6.6000e-004	6.6000e-004		6.2000e-004	6.2000e-004	0.0000	2.3498	2.3498	6.8000e-004	0.0000	2.3669
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.5300e-003**	**0.0138**	**0.0176**	**3.0000e-005**		**6.6000e-004**	**6.6000e-004**		**6.2000e-004**	**6.2000e-004**	**0.0000**	**2.3498**	**2.3498**	**6.8000e-004**	**0.0000**	**2.3669**

3.6 Paving - 2023

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	1.2000e-004	9.0000e-005	8.0000e-004	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	8.0000e-005	0.0000	0.2036	0.2036	1.0000e-005	0.0000	0.2037
Total	**1.2000e-004**	**9.0000e-005**	**8.0000e-004**	**0.0000**	**2.8000e-004**	**0.0000**	**2.8000e-004**	**7.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2036**	**0.2036**	**1.0000e-005**	**0.0000**	**0.2037**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1043					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	**0.1053**	**6.5100e-003**	**9.0600e-003**	**1.0000e-005**		**3.5000e-004**	**3.5000e-004**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2785**

3.7 Architectural Coating - 2023

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	1.0000e-005	1.0000e-005	9.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**9.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1043					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	**0.1053**	**6.5100e-003**	**9.0600e-003**	**1.0000e-005**		**3.5000e-004**	**3.5000e-004**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2785**

3.7 Architectural Coating - 2023

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	1.0000e-005	1.0000e-005	9.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**9.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0559	0.2156	0.4537	1.4200e-003	0.1564	1.0500e-003	0.1574	0.0419	9.8000e-004	0.0429	0.0000	131.9361	131.9361	6.9400e-003	0.0000	132.1096
Unmitigated	0.0559	0.2156	0.4537	1.4200e-003	0.1564	1.0500e-003	0.1574	0.0419	9.8000e-004	0.0429	0.0000	131.9361	131.9361	6.9400e-003	0.0000	132.1096

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Strip Mall	351.00	351.00	351.00	413,250	413,250
Total	351.00	351.00	351.00	413,250	413,250

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
Strip Mall	6.60	5.50	6.40	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Strip Mall	0.586995	0.024930	0.209264	0.108263	0.013258	0.004355	0.018072	0.021482	0.002798	0.001725	0.005977	0.002241	0.000641

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	15.2471	15.2471	6.5000e-004	1.3000e-004	15.3018
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	16.5161	16.5161	7.0000e-004	1.4000e-004	16.5754
NaturalGas Mitigated	8.0000e-005	7.6000e-004	6.4000e-004	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.8237	0.8237	2.0000e-005	2.0000e-005	0.8286
NaturalGas Unmitigated	1.0000e-004	8.8000e-004	7.4000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9606	0.9606	2.0000e-005	2.0000e-005	0.9663

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					
Strip Mall	18000	1.0000e-004	8.8000e-004	7.4000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9606	0.9606	2.0000e-005	2.0000e-005	0.9663
Total		**1.0000e-004**	**8.8000e-004**	**7.4000e-004**	**1.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.9606**	**0.9606**	**2.0000e-005**	**2.0000e-005**	**0.9663**

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					
Strip Mall	15435	8.0000e-005	7.6000e-004	6.4000e-004	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.8237	0.8237	2.0000e-005	2.0000e-005	0.8286
Total		**8.0000e-005**	**7.6000e-004**	**6.4000e-004**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.8237**	**0.8237**	**2.0000e-005**	**2.0000e-005**	**0.8286**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Strip Mall	102960	16.5161	7.0000e-004	1.4000e-004	16.5754
Total		**16.5161**	**7.0000e-004**	**1.4000e-004**	**16.5754**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Strip Mall	95049	15.2471	6.5000e-004	1.3000e-004	15.3018
Total		**15.2471**	**6.5000e-004**	**1.3000e-004**	**15.3018**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0456	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6000e-004	1.6000e-004	0.0000	0.0000	1.7000e-004
Unmitigated	0.0456	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6000e-004	1.6000e-004	0.0000	0.0000	1.7000e-004

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	0.0104					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0352					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6000e-004	1.6000e-004	0.0000	0.0000	1.7000e-004
Total	**0.0456**	**0.0000**	**8.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.6000e-004**	**1.6000e-004**	**0.0000**	**0.0000**	**1.7000e-004**

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	0.0104					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0352					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6000e-004	1.6000e-004	0.0000	0.0000	1.7000e-004
Total	**0.0456**	**0.0000**	**8.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.6000e-004**	**1.6000e-004**	**0.0000**	**0.0000**	**1.7000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.8810	6.8000e-004	4.2000e-004	1.0220
Unmitigated	1.0439	8.5000e-004	5.2000e-004	1.2200

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Strip Mall	0.666653 / 0.408594	1.0439	8.5000e-004	5.2000e-004	1.2200
Total		**1.0439**	**8.5000e-004**	**5.2000e-004**	**1.2200**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Strip Mall	0.533322 / 0.408594	0.8810	6.8000e-004	4.2000e-004	1.0220
Total		**0.8810**	**6.8000e-004**	**4.2000e-004**	**1.0220**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.9624	0.0973	0.0000	4.3952
Unmitigated	1.9624	0.0973	0.0000	4.3952

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Strip Mall	9.45	1.9624	0.0973	0.0000	4.3952
Total		**1.9624**	**0.0973**	**0.0000**	**4.3952**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Strip Mall	9.45	1.9624	0.0973	0.0000	4.3952
Total		**1.9624**	**0.0973**	**0.0000**	**4.3952**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

N2O Operational GHG Emission Mobile Calculations

Project Code & Title: 19-07614 Goleta Train Depot

Vehicle Population Breakdown*	
164187	Gasoline vehicles
12116	Diesel vehicles
93.1%	Gasoline vehicle %
6.9%	Diesel vehicle %

VMT per Vehicle Type	
413250	Project VMT (CalEEMod output)
384851	Gasoline vehicle VMT
28399	Diesel vehicle VMT

Gasoline Vehicles	
93.1%	Gasoline vehicle %
0.2164	Tons per year mobile NOX emissions (annual output in CalEEMod)
0.20	Gasoline vehicle tons per year NOX emissions
0.0200	Tons per year N2O emissions for gasoline vehicles**
0.0182	Metric tons per year N2O emissions for gasoline vehicles

Diesel Vehicles	
1.60	grams N2O per gallon of fuel for diesel vehicles**
516.24	Diesel average miles per gallon*
0.00310	grams per mile N2O for diesel vehicles
88.0	grams per year N2O for diesel vehicles
0.0000880	Metric tons per year N2O emissions for diesel vehicles

CO2e Emissions from N2O	
0.0183	Metric tons per year from gasoline + diesel vehicles
298	GWP of N2O***
5.4	**CO2e emissions per year from N2O emissions from gasoline + diesel vehicles**

Sources
***Vehicle population source:** EMFAC2017 (v1.0.2) Emissions Inventory Region Type: Air District Region: Santa Barabara APC Calendar Year: 2030 Season: Annual Vehicle Classification: EMFAC2011 Categories ****Methodology source:** EMFAC2017 Volume III - Technical Documentation https://www.arb.ca.gov/msei/emfac2011-faq.htm *****GWP source:** Intergovernmental Panel on Climate Change (IPCC). 2007. AR4 Climate Change 2007: The Physical Science Basis. Contrbution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.

Appendix D

Phase I Environmental Site Assessment



Phase I Environmental Site Assessment

Goleta Train Depot Project
27 South La Patera Lane
Goleta, California

prepared for
The City of Goleta

prepared by
Rincon Consultants, Inc.

December 30, 2019

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

Rincon Consultants, Inc.
209 East Victoria Street
Santa Barbara, California 93101

805 319 4092 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 30, 2019
Project 19-07186

Gerald Comati
City of Goleta
Public Works Department
130 Cremona Drive, Suite B
Goleta, California 93117

Subject: **Phase I Environmental Site Assessment**
Goleta Train Depot Project
27 South La Patera Lane, Goleta, California

Dear Mr. Comati:

This report presents the findings of a Phase I Environmental Site Assessment (ESA) completed by Rincon Consultants, Inc. for the Goleta Train Depot Project in Goleta, California. The Phase I ESA was performed in accordance with our Agreement for Professional Service between Anil Verma Associates, Inc. and Rincon Consultants, Inc. dated June 19, 2019.

The accompanying report presents our findings and provides an opinion regarding the presence of recognized environmental conditions in connection with the subject property. Our work program for this project, as referenced in our contract, is intended to meet the guidelines outlined in the American Society for Testing and Materials (ASTM), Standard Practice for Environmental Site Assessments: *Phase I Environmental Site Assessment Process* (ASTM Standard E1527-13). Our scope of services, pursuant to ASTM practice, did not include any inquiries with respect to asbestos, lead-based paint, lead in drinking water, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, vapor intrusion or other indoor air quality, mold, or high-voltage power lines.

Thank you for selecting Rincon for this project. If you have any questions, or if we can be of any future assistance, please contact us.

Sincerely,
Rincon Consultants, Inc.

Sarah A. Larese
Senior Environmental Scientist

Walt Hamann, PG, CEG, CHG
Vice President, Environmental Services

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Executive Summary

This report presents the findings of a Phase I Environmental Site Assessment (ESA) for the Goleta Train Depot Project located at 27 S. La Patera Lane in Goleta, California (Figure 1, Vicinity Map). The Phase I ESA was performed for the City of Goleta by Rincon Consultants, Inc. (Rincon). The City of Goleta has requested this assessment and will use the information for the purpose of redeveloping the subject property. The project site is currently developed with a structure with offices and warehouse space that was primarily vacant and unoccupied (with a portion of the building in use by Food Bank for food storage) during the site reconnaissance.

The subject property is located in an area that is primarily composed of commercial and industrial land uses. Properties in the vicinity of the subject property include light industrial and commercial businesses, an Amtrak Station and a railroad right-of-way.

Rincon performed a reconnaissance of the subject property on October 31, 2019 accompanied by Claudia Dato, City Project Manager with the City of Goleta and Michael Baris, Emergency Services Coordinator, with the City of Goleta. The purpose of the reconnaissance was to observe existing conditions and to obtain information indicating the presence of recognized environmental conditions (RECs) in connection with the subject property. During the site reconnaissance, Rincon observed evidence of one underground storage tank (UST) located on the western portion of the subject property adjacent to the onsite generator. According to Mr. Baris, the UST contains 450-gallons of diesel fuel with a maximum capacity of 1,800-gallons to supply the onsite generator located to the east of the onsite UST. Mr. Baris indicated that the UST is currently in compliance with applicable local and state regulations. In addition, Rincon observed one 55-gallon drum on the subject property (with a hazardous waste sticker dated 4/12/19 and labeled as containing rainwater). It appears that the drum contents are associated with the following California Environmental Protection Agency (Cal EPA) violation reported for the subject property on 4/12/19:

- Facility failure to keep water out of the secondary containment of UST systems installed on or after July 1, 2003. Water is continuously entering the vent box. Returned to compliance on 6/17/2019.

No other drums were reported by the site representative or observed during the site reconnaissance. Rincon did not observe indications of releases from the drum on the subject property.

A regulatory database search was conducted by Environmental Data Resources (EDR) for sites that generate, store, treat or dispose of hazardous materials or sites for which a release or incident has occurred. The search was conducted for the subject property and included data from surrounding sites within a specified radius of the property. The subject property was listed in the following databases searched by EDR: FINDS, ECHO, UST, HAZNET, RCRA NonGen/ NLR, CERS HAZ WASTE, CERS TANKS, CERS, EMI HIST UST and CUPA Listings. According to EDR, the HAZNET listing indicates hazardous wastes generated on the subject property were removed and disposed at an accepting offsite facility. The hazardous wastes generated included: pharmaceutical wastes (2016-2017), off-specification, aged or surplus organics (2016), halogenated solvents, unspecified solvent mixture, oil/water separation sludge (1992), waste oil and mixed oil (1989). According to the online CalEPA Regulated Site Portal, the site is listed under three regulatory programs: Chemical Storage Facilities, Hazardous Waste Generator and Underground Storage Tank facility. As stated above, the facility

received a violation regarding water entering the UST system vent box. The facility returned to compliance on 6/17/2019. The subject property was not listed in any databases that are indicative of a hazardous materials release.

According to EDR, the subject property was listed in the HIST UST database. The HIST UST listing indicates one historical 6,000-gallon UST containing regular motor vehicle fuel was installed on the subject property in 1967. No spills or incidents related to the UST were identified in the EDR report. No additional information pertaining to the UST was available on GeoTracker or EnviroStor websites. A 1967 site map received from the City of Goleta Planning department depicts an underground gasoline storage tank and fuel dispenser located in the southern portion of the subject property. Based on review of aerial maps provided by EDR, from 1967 to at least 1977 a rectangular concrete pad appears to be located in the southern portion of the subject property indicating the presence of the UST and fuel dispenser. During the site reconnaissance, a concrete pad was not observed in the location of the former UST and fuel dispenser. Although no releases of hazardous material have been reported in association with the historic UST, unreported hazardous materials may have occurred and have the potential to be adversely impacting soil and groundwater beneath the subject property. Based on our research, it is unknown if any soil matrix or soil vapor assessments have been conducted in the vicinity of this historical UST. It is also unclear if the UST was removed from the subject property.

According to EDR, the UST listing indicates a UST is located onsite and is regulated by the Santa Barbara County Fire Department. During the site reconnaissance the location of the existing UST was observed near the southwestern corner of the large onsite building. According to documents provided by the Santa Barbara County Public Health Department (SBCPHD), a 1,800- gallon diesel double walled fiberglass tank was installed in 2009. No spills or incidents related to the USTs were identified in the EDR report or in the documents provided by the SBCPHD. No additional information pertaining to the UST was available on GeoTracker or EnviroStor websites. Although no releases of hazardous materials have been reported in association with the UST, unreported hazardous materials releases may have occurred and have the potential to be adversely impacting soil and groundwater beneath the subject property.

Additionally, three adjacent properties were listed in databases searched by EDR. Based on the documents reviewed, these three adjacent sites are not expected to impact the subject property. Information regarding these listings are described in the Additional Environmental Record Sources section of this report.

Historical sources reviewed as part of the Phase I ESA include aerial photographs and topographic maps. The photos and maps reviewed indicate the following historical land uses for the subject property:

- 1928 to 1951: Rural residential structure (part of a ranch/farmhouse or barns and sheds) and an orchard. The railroad tracks located to the north of the subject property have been present since at least 1928.
- 1954: The onsite residential farmhouse/barns/sheds and orchard appear to be removed from the subject property. One small building (barn or shed) remains in the southwestern corner.
- 1967 to present: Large commercial structure (existing) and a parking lot (existing)

A 1967 building permit site map depicts an underground gasoline storage tank and fuel dispenser located in the southern portion of the subject property. In addition, two sumps are depicted, one in the northwest corner and one in the northeastern portion of the subject property. A trench drain is

depicted on the northeastern portion of the subject property near one of the sumps, as well as "service shops" within the southeastern portion of the structure. A pump house and capped water supply well is depicted in the northwestern portion of the subject property. In addition, according to our research, it appears the subject property was in use as a bus transportation facility (Durham Transportation) in at least 1987. In addition, the EDR report indicates that the following hazardous waste was generated at the site in 1989 through at least 1992: halogenated solvents, unspecified solvent mixture, oil/water separation sludge, waste oil and mixed oil. These listings identified in the EDR report may be indicative of bus maintenance or repair being conducted at the subject property. In addition, the generation of "oil/water separation sludge" may indicate the presence of a former oil water separator or clarifier on the subject property.

Based on the findings of this Phase I ESA, it is our opinion that there are two RECs, three potential RECs and one other condition of concern in connection with the subject property as follows:

Recognized Environmental Conditions

1. The presence of a 6,000-gallon historic UST reported on the subject property.
2. The presence of an existing 1,800-gallon diesel UST located on the subject property.

Potential Recognized Environmental Conditions

1. Former agricultural use of the subject property
2. The former Industrial use of the subject property as a bus transportation facility, as well as the presence of former sumps and "service shops".
3. The presence of railroad tracks adjacent to the north of the subject property

Other Condition of Concern

1. The presence of a capped water supply well reported on the subject property.

Due to the historical use of the subject property for agricultural purposes, there is a potential that the subject property could be affected with pesticides, or other chemicals used routinely in agricultural production. Rincon recommends collecting shallow soil samples from the subject property and analyzing these samples for pesticides and arsenic.

To evaluate the potential subject property impact associated with the northern adjacent railroad tracks, we recommend a shallow soil sampling assessment on the northern boundary of the subject property to determine if hydrocarbons, metals, herbicides, and semi volatile organic compounds from the railroad activities are present in the shallow soil on the subject property. In addition, based on the historical agricultural use of the area, we also recommend that soil samples be analyzed for pesticides, as these chemicals may have been transported via railcars/railroad tracks.

To evaluate the potential subject property impact associated with the former industrial use of the subject property as a bus transportation facility, as well as the presence of former sumps and "service shops", Rincon recommends that geophysical survey be conducted in the area of the underground features and that a soil matrix and soil vapor assessment be conducted on the subject property in the location of the underground features (sumps and trench drain, as wells as within the former "service shop" areas.

To evaluate the Historical UST on the subject property, we recommend a geophysical survey be conducted in the location of the historical UST and we recommend that a soil matrix and soil vapor assessment be conducted on the subject property in the vicinity of the former onsite UST

To evaluate the potential subject property impact associated with the current diesel UST located on the western portion of the subject property, Rincon recommends a soil matrix assessment in the vicinity of the UST to determine if impacted soil is present in the vicinity of the existing UST beneath the subject property.

In addition, if the UST is to be removed as part of the redevelopment of the subject property, then Rincon recommends proper tank abandonment and removal in accordance with local and state regulatory agency protocols.

Regarding the historical capped water supply well and pumphouse, we recommend that if a capped water supply well is present beneath the subject property, that it be properly abandoned, or re-abandoned to current standards in accordance with local and state regulatory agency protocols.

During redevelopment of the site, a Soil Management Plan should be prepared and followed by the development contractor. The Plan will identify what should be done in the event that previously unidentified features (USTs, clarifiers, sumps or other underground features) are uncovered during the redevelopment of the site.

Although not considered a REC, based on the age of the onsite structure (constructed as early as 1967), asbestos-containing materials and lead-based paint may be present in the building on the subject property. Therefore, Rincon recommends conducting an asbestos-containing building materials and lead-based paint survey at the subject property.

Introduction

This report presents the findings of a Phase I Environmental Site Assessment (ESA) conducted for the Goleta Train Depot Project located in Goleta, California (Figure 1, Vicinity Map). The Phase I ESA was performed by Rincon Consultants, Inc. (Rincon) for the City of Goleta in general conformance with ASTM E1527-13, and our Agreement for Professional Service between Anil Verma Associates, Inc. and Rincon Consultants, Inc. dated June 19, 2019. The following sections present our findings and provide our opinion as to the presence of recognized environmental conditions (RECs) on the subject property.

Purpose

The City of Goleta has requested this assessment and will use the information for the purpose of redeveloping the subject property. The purpose of this Phase I ESA was to determine if there are RECs on the subject property, taking into account commonly and reasonably ascertainable information and to qualify for Landowner Liability Protections under the Brownfields Amendments to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

A REC is defined pursuant to ASTM E1527-13 as,

> "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: 1) due to any release to the environment; 2) under conditions indicative of a release to the environment; 3) under conditions that pose a material threat of a future release to the environment".

A Controlled REC is defined pursuant to ASTM E1527-13 as,

> "a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). A condition considered by the environmental professional to be a controlled recognized environmental condition shall be listed in the findings section of the Phase I Environmental Site Assessment report, and as a recognized environmental condition in the conclusions section of the Phase I Environmental Site Assessment report".

A Historical REC is defined pursuant to ASTM E1527-13 as,

> "a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by regulatory authority, without subjecting the property to any required controls (for example, use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a historical recognized environmental condition, the environmental professional must determine whether the past release is a recognized environmental condition at the time the Phase I Environmental Site Assessment is conducted (for example, if there has been a change in

> the regulatory criteria). If the EP [Environmental Professional] considers the past release to be a recognized environmental condition at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as a recognized environmental condition".

A *de minimis* condition is defined pursuant to ASTM E1527-13 as,

> "a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis conditions are not recognized environmental conditions nor controlled recognized environmental conditions".

Scope of Services

The scope of services conducted during this study is outlined below:

- Performed a reconnaissance of the subject property to identify obvious indicators of the existence of hazardous materials.
- Observed adjacent or nearby properties from public thoroughfares in an attempt to see if such properties are likely to use, store, generate, or dispose of hazardous materials.
- Obtained and reviewed an environmental records database search to obtain information about the potential for hazardous materials to exist at the subject property or at properties located in the vicinity of the subject property.
- Reviewed files for the subject property and immediately adjacent properties as identified in the database report, as applicable.
- Reviewed the current United States Geological Survey (USGS) topographic map to obtain information about the subject property and regional topography and uses of the subject property and surrounding sites.
- Reviewed additional pertinent record sources (e.g., California Division of Oil, Gas, and Geothermal Resources records, online databases of hazardous substance release sites), as necessary, to identify the presence of RECs at the subject property.
- Reviewed reasonably ascertainable historical resources (e.g., aerial photographs, topographic maps, fire insurance maps, city directories) to assess the historical land use of the subject property and adjacent properties.
- Provided a user interview questionnaire to a representative of the client, the user of the Phase I ESA.
- Provided a property owner interview questionnaire to the property owner or a designated subject property representative identified to Rincon by the client.
- Conducted interviews with other property representatives (e.g., key site manager, occupants), as applicable.
- Reviewed available client-provided information (e.g., previous environmental reports, title documentation).

Significant Assumptions, Limitations, Deviations, Exceptions, Special Terms, and Conditions

This work is intended to adhere to good commercial, customary, and generally accepted environmental investigation practices for similar investigations conducted at this time and in this geographic area. No guarantee or warranties, expressed or implied, are provided. The findings and opinions conveyed in this report are based on findings derived from a site reconnaissance, review of an environmental database report, specified regulatory records and historical sources, and comments made by interviewees. This report is not intended as a comprehensive site characterization and should not be construed as such. Standard data sources relied upon during the completion of Phase I ESAs may vary with regard to accuracy and completeness. Although Rincon believes the data sources are reasonably reliable, Rincon cannot and does not guarantee the authenticity or reliability of the data sources it has used. Additionally, pursuant to our contract, the data sources reviewed included only those that are practically reviewable without the need for extraordinary research.

Rincon has identified evidence that suggests that hazardous materials or petroleum products (an existing UST containing diesel fuel) exists at the site. Additional research, including surface or subsurface sampling and analysis, can reduce Client's risks, but no techniques commonly employed can eliminate these risks altogether.

In addition, pursuant to ASTM E1527-13 practice, our scope of services did not include any inquiries with respect to asbestos-containing building materials, biological agents, cultural and historic resources, ecological resources, endangered species, health and safety, indoor air quality unrelated to release of hazardous substances or petroleum products into the environment, industrial hygiene, lead-based paint, lead in drinking water, mold, radon, regulatory compliance, wetlands, or high-voltage power lines.

User Reliance

The City of Goleta has requested this assessment and will use the information for the purpose of redeveloping the subject property. This Phase I ESA was prepared for use solely and exclusively by the City of Goleta, Anil Verma Associates, Inc., Santa Barbara County Association of Governments, Union Pacific Railroad Company (UPRR), Amtrak, and other interested governmental agencies and stakeholders. No other use or disclosure is intended or authorized by Rincon. Also, this report is issued with the understanding that it is to be used only in its entirety. It is intended for use only by the client, and no other person or entity may rely upon the report without the express written consent of Rincon.

Site Description

Location

The project site is approximately 2.5- acres located west of the northern terminus of S. La Patera Lane and an approximately 0.15-acre easement located east of the northern terminus of S. La Patera Lane in Goleta, California (Figure 2, Site Map). The subject property is identified as 27 South La Patera Lane and Assessor's Parcel Number (APN) 073-050-033. The 0.15-acre easement is a

portion of the eastern adjacent property identified as 20 South La Patera Lane and APN 073-080-075.

Subject Property and Vicinity General Characteristics

The project site is currently developed with a structure with offices and warehouse space. During the site reconnaissance, the property was primarily unoccupied/vacant, however, a portion of the building was in in use by Food Bank for food storage.

The subject property is located in an area that is primarily composed of commercial and light industrial land uses. Properties in the vicinity of the subject property include light industrial, commercial businesses and a railroad right-of-way. The current adjacent land uses are described in Table 1 and depicted on Figure 3, Adjacent Land Use Map.

Table 1 Current Uses of Adjacent Properties

Area	Use
Northern Properties	Amtrak railroad station/railroad tracks
Eastern Properties	S. La Patera Lane followed by Microdyn-Nadir, Cox Communication, Northrop Grumman, Aeonian Semiconductor Technology, Zad Fashion Inc., Aqua Flo Supply, and Powell Skate One (30 S. La Patera Lane)
Southern Properties	Kollmorgen Pacific Scientific (33 S. La Patera Lane), Historical Hill House Adobe
Western Properties	Bardex Corporation and Astro Aerospace (6338 Lindmar Drive)

Descriptions of Structures, Roads, Other Improvements on the Subject Property

During the site reconnaissance, one structure and a parking lot were observed on the subject property. The structure contains two-stories of vacant office space and a large vacant warehouse. The exterior of the structure includes a vacant cement-paved storage yard and a loading dock.

A chain-link fence and retaining wall were noted around the perimeter of the subject property.

Access to the subject property is available from a driveway on S La Patera Lane.

The following utility providers service the subject property:

- Electrical Service – Southern California Edison
- Natural Gas Service – Southern California Gas Company
- Water and Sewer Service – Goleta Water/Sanitary District
- Solid Waste Service – Marborg Industries (because the site is unoccupied, this company currently does not service the subject property)

User-Provided Information

As described in ASTM E1527-13 Section 6, the City of Goleta was interviewed for actual knowledge pertaining to the subject property to help identify RECs in connection with the subject property. Claudia Dato, Senior Project Manager of the City of Goleta, completed the User Questionnaire as provided by ASTM Appendix X3 prior to completion of the site reconnaissance. A copy of the completed questionnaire is included as Appendix A.

Based on our review of the completed questionnaire, Ms. Dato did not review the following sources of information and is unaware of information regarding the following:

- Recorded land title records (or judicial records, where appropriate) that identify any environmental liens filed or recorded against the subject property
- Recorded land title records (or judicial records, where appropriate) that identify any activity and land use limitations (AULs), such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded against the subject property under federal, tribal, state or local law
- Title Report that identifies information pertaining to environmental cleanup liens or AULs for the subject property

Based on our review of the completed questionnaire, Ms. Dato is unaware of information regarding the following:

- Specialized knowledge or experience related to the subject property or nearby properties
- Reduction in value for the subject property relative to any known environmental issues
- Obvious indicators that point to the presence or likely presence of releases at the subject property
- Pending, threatened, or past litigation relevant to hazardous substances or petroleum products, in, on, or from the subject property
- Pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the subject property
- Notice from any government entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products

Additionally, Ms. Dato indicated that the purchase price paid for the subject property reasonably reflects the fair market value of the property, and she is not aware of a reduction in value for the subject property relative to any known environmental issues.

Based on our review of the completed questionnaire, Ms. Dato identified information pertaining to the subject property. This information is summarized below:

- The subject property was built with an industrial warehouse building and ancillary office space in 1967.

The following documents regarding the subject property were provided by the City of Goleta.

- *Geotechnical Exploration, ENGEO, Goleta Train Depot Project, September 23, 2019.* The report pertains to the geotechnical design of a train depot on the subject property. According to

ENGEO, the site is suitable for the proposed development, provided the geotechnical recommendations in the report are properly incorporated into the design plans, specifications, and construction.

Records Review

Physical Setting Sources

Topography

The current USGS topographic map (Goleta Quadrangle, 2012) indicates that the subject property is situated at an elevation of about 40 feet above mean sea level with relatively flat topography. Similarly, the adjacent topography consists of relatively flat topography.

Geology and Hydrogeology

According to the California Geological Survey (CGS), *California Geomorphic Provinces, Note 36*[1], the subject property is located within the Transverse Ranges Geomorphic Province. The Transverse Ranges are an east-west trending series of steep mountain ranges and valleys. The east-west structure of the Transverse Ranges is oblique to the normal northwest trend of coastal California, hence the name "Transverse." The province extends offshore to include San Miguel, Santa Rosa, and Santa Cruz islands. Its eastern extension, the San Bernardino Mountains, has been displaced to the south along the San Andreas Fault. Intense north-south compression is squeezing the Transverse Ranges. As a result, this is one of the most rapidly rising regions on earth. Great thicknesses of Cenozoic petroleum-rich sedimentary rocks have been folded and faulted, making this one of the important oil-producing areas in the United States.

Site Geology

The site is located in the southern portion of a relatively flat coastal zone with the Pacific Ocean to the south, and the foothills of the Santa Ynez mountains to the north. According to the USGS Geologic Map of the Goleta Quadrangle (Thomas W. Dibblee, Jr. 1987) the subject property is underlain by Quaternary age alluvium, which is described as unconsolidated floodplain deposits of silt, sand and gravel.

Based on the Geotechnical Report prepared by ENGEO and provided by the City of Goleta, a subsurface assessment conducted on the subject property *"generally encountered an upper layer of stiff to hard sandy lean clay, which ranged between eight and 14 feet in thickness. The Plasticity Index ranges between 2 and 21, indicating a low to medium shrink/swell potential. Underlying the clay, the borings encountered varying layers of clayey sand, silty sand, silt and lean clay. Sandy layers ranged from medium dense to very dense and clayey layers were stiff to hard*."

Regional Groundwater Occurrence and Quality

According to the California Department of Water Resources Bulletin 118, the site is located within the Goleta Groundwater Basin.

According to the geotechnical assessment conducted on the subject property, groundwater was encountered at 20 feet below ground surface (bgs).

[1] https://www.conservation.ca.gov/cgs/Documents/Publications/Note_36.pdf

During the preparation of this Phase I ESA, we reviewed the California State Water Resources Control Board's (SWRCB's) online GeoTracker database to determine groundwater flow direction in the vicinity of the subject property. According to the *Case Closure Summary, Leaking Underground Fuel Storage Tank Program Workplan for SCE Santa Barbara Service Center, 103 David Love Place, Santa Barbara, California* and dated May 2006, groundwater is reported to be between 5.8 and 10.69 feet bgs and flows toward the south -southeast. This property is located approximately 550 feet southeast of the subject property.

Radon

A radon survey was not conducted as part of this assessment. According to the EDR report, the subject property is located in Federal EPA Radon Zone 1, which has an indoor average radon level greater than 4 picocuries per liter (pCi/L). The report indicates that 13 sites were tested for radon in indoor air within the zip code 93117 in the city of Goleta. The test results indicate an average concentration of 2.915 pCi/L in the first floor living area.

According to the State of California Department of Health Services (DHS) publication *Survey of Residential Indoor and Outdoor Radon Concentrations in California* (dated March 1990), statewide indoor radon concentrations range from 0.1 pCi/L to 16 pCi/L with an arithmetic mean of 1.09 pCi/L. The DHS survey also indicates that statewide basement radon concentrations range from 0.6 pCi/L to 7.7 pCi/L with an arithmetic mean of 2.65 pCi/L. In addition, the DHS survey indicates that statewide outdoor radon concentrations range from 0.1 pCi/L to 1.5 pCi/L with an arithmetic mean of 0.49 pCi/L.

According to the California Department of Public Health (CDPH) *California Indoor Radon Test Results* sorted by zip code (Updated 2016), radon concentrations in residences in the geographic region of the subject site (zip code 93117) average below 4 pCi/L. Out of 341 tests reported to the California Department of Public Health in this area code, 61 tests exceeded 4.0 pCi/L. In addition, according to the online *CGS Interactive Indoor Radon Potential Map*, the potential for indoor radon levels to exceed the EPA recommended action level of 4.0 pCi/L in the site vicinity is low.

Standard Environmental Record Sources

Environmental Data Resources, Inc. (EDR) was contracted to provide a database search of public lists of sites that generate, store, treat, or dispose of hazardous materials or sites for which a release or incident has occurred. The EDR search was conducted for the subject property and included data from surrounding sites within specified radii of the property. A copy of the EDR report, which specifies the ASTM search distance for each public list, is included as Appendix B. As shown on the attached EDR report, federal, state, and county lists were reviewed as part of the research effort. Please refer to Appendix B for a complete listing of sites reported by EDR and a description of the databases reviewed.

The Map Findings Summary, included in the EDR report, provides a summary of the databases searched, the number of reported facilities within the search radii, and whether the facility is located onsite or adjacent to the subject property. The following information is based on our review of the Map Findings Summary and the information contained in the EDR report.

Subject Property

The subject property was listed on the following databases:

- FINDS, ECHO, RCRA NonGen/NLR, CERS HAZ WASTE, CERS TANKS, and CERS database as City of Goleta at 27 S. La Patera Lane
- UST, EMI, CERS and FINDS database as Direct Relief International at 27 S. La Patera Lane
- HAZNET database as Durham Transportation at 27 S. La Patera Lane
- HIST UST, CUPA Listings, HAZNET, SWEEPS UST and CA FID UST database as Sears Warehouse at 27 S. La Patera Lane
- HAZNET database as One Time Sporrs Lewis A at 27 S. La Patera Lane

Regulatory agency files reviewed for the subject property are discussed in the Additional Environmental Record Sources section of this report.

Offsite Properties

Offsite properties listed by EDR fall under two general categories of databases: those reporting unauthorized releases of hazardous substances (e.g., Leaking Underground Storage Tank [LUST], National Priority List [a.k.a. Superfund sites], and corrective action facilities), and databases of businesses permitted to use hazardous materials or generate hazardous wastes, for which an unauthorized release has not been reported to a regulatory agency.

Rincon reviewed the EDR Radius Map and select detailed listings to evaluate their potential to impact the subject property, based on the following factors:

- Reported distance of the facility from the subject property;
- The nature of the database on which the facility is listed, and/or whether the facility was listed on a database reporting unauthorized releases of hazardous materials, petroleum products, or hazardous wastes;
- Reported case type (e.g., soil only, failed underground storage tank [UST] test only);
- Reported substance released (e.g., chlorinated solvents, gasoline, metals);
- Reported regulatory agency status (e.g., case closed, “no further action”); and,
- Location of the facility with respect to the reported groundwater flow direction (discussed in the Geology and Hydrogeology section of this report)

Facilities/properties that were interpreted by Rincon to be of potential environmental concern to the subject property, based on one or more of the factors listed above, are summarized in Table 2. In accordance with ASTM, contamination migration pathways in soil, groundwater, and soil vapor were considered in our analysis of offsite properties of potential environmental concern.

Table 2 EDR Listing Summary of Select Sites Within One-Eighth Mile of the Subject Property

Site Name	EDR Site ID	Site Address	Distance from Subject Property	Database Reference	Comments
Subject Property					
City of Goleta, Direct Relief International, Durham Transportation, Sears Warehouse, One time Sporrs Lewis A	A1-A3, A5, A7-A11, A13	27 S. La Patera Lane	Subject Property	FINDS, ECHO	Facility Index System, Enforcement & Compliance History Information
				UST, SWEEPS UST, CA FID UST, HIST UST	One current UST. One historical 6,000-gallon UST containing regular motor vehicle fuel installed onsite in 1967.
				HAZNET, CERS HAZ WASTE, CERS TANKS, CERS, CUPA Listings	Pharmaceutical waste (2016-2017), off-specification, aged or surplus organics (2016), halogenated solvents, unspecified solvent mixture, oil/water separation sludge (1992), waste oil and mixed oil (1989) California Environmental Reporting System: hazardous waste generator, underground storage tank (UST) and chemical storage facilities
				RCRA NonGen/ NLR	Resource Conservation and Recovery Act – Non generator of hazardous waste/ no longer regulated
				EMI	Pollutant Emissions Data
Adjacent Properties					
Amtrak Goleta Layover Facility, Amtrak/Goleta Facility	A4, A6, A12, A17	25 S. La Patera Lane	Subject Property	NPDES, CIWQS	National Pollutant Discharge Elimination System, California Integrated Water Quality System
				CERS HAZ WASTE, CERS, CUPA Listings	California Environmental Reporting System: hazardous waste generator and chemical storage facilities
				AST	One 3,250-gallon AST onsite
				RCRA NonGen/ NLR	Resource Conservation and Recovery Act – Non generator of hazardous waste/ no longer regulated

Site Name	EDR Site ID	Site Address	Distance from Subject Property	Database Reference	Comments
Santa Barbara Lemon, Northrop Grumman, Aeonian Semiconductor Technology, S. B. Lemon Association (Now Powell Corp=Tenant), Powell Skateone Corporation, Dahl's Air Condition	A14, A18-A25	30 S La Patera Lane	Adjacent Property – Southeast	**LUST**, SWEEPS UST, CA FID UST	Release of gasoline from a leaking UST to soil and groundwater reported in 1987.
				RCRA NonGen/NLR	Resource Conservation and Recovery Act – Non generator of hazardous waste/ no longer regulated
				CERS HAZ WASTE, CERS, CUPA Listings, HIST CORTESE	California Environmental Reporting System: hazardous waste generator and chemical storage facilities
Bardex Corporation, Bardex Corporation Machine Shop, Astro Aerospace Corp	C32-C37	6338 Lindmar Drive	Adjacent Property – West	RCRA-SQG, RCRA NonGen/ NLR	Resource Conservation and Recovery Act – Small quantity generator of hazardous waste and non-generator of hazardous waste/ no longer regulated
				FINDS, ECHO	Facility Index System, Enforcement & Compliance History Information
				EMI, NPDES, ENF	Emissions, National Pollutant Discharge Elimination System, Enforcement
				CERS HAZ WASTE, CERS, CUPA Listings, CORTESE	California Environmental Reporting System: hazardous waste generator and chemical storage facilities
				CPS-SLIC	Unauthorized release in 2000 associated with the machine shop operations located onsite. Remediation and groundwater assessment. According to GeoTracker, the site is listed as, "Open – Assessment & Interim Remedial Action as of 4/11/2001"

*__Bold__ listings indicate a release database

Regulatory agency information reviewed for the listings in the table above are summarized in the Additional Environmental Record Sources section of this report

Orphan Listings

EDR reported two orphan or unmapped site listings, which EDR is unable to plot due to insufficient address information. Based on Rincon's review of the limited address information or site descriptions for the orphan listings, none of the listings are expected to impact the subject property.

Additional Environmental Record Sources

Review of Agency Files

As a follow-up to the database search, Rincon reviewed regulatory information for the subject property and facilities within the specified search radii that were interpreted to have the potential to impact the subject property, based on one or more factors previously discussed (e.g., distance, open case status, upgradient location, soil vapor migration).

The following is a summary of our review of regulatory information obtained from review of online sources (e.g., SWRCB GeoTracker database, Department of Toxic Substances Control [DTSC] EnviroStor database) and/or files requested from the applicable regulatory agency, as described below.

Subject Property

The subject property was listed in the following databases searched by EDR: FINDS, ECHO, UST, HAZNET, RCRA NonGen/ NLR, CERS HAZ WASTE, CERS TANKS, CERS, EMI, HIST UST and CUPA Listings.

According to EDR, the HAZNET listing indicates hazardous waste was generated at the subject property and was removed from the subject property (disposed at an accepting offsite facility). The hazardous waste consisted of pharmaceutical waste (2016-2017), off-specification, aged or surplus organics (2016), halogenated solvents, unspecified solvent mixture, oil/water separation sludge (1992) and waste oil and mixed oil (1989).

According to EDR, the subject property was listed in the HIST UST database. The HIST UST listing indicates one historical 6,000-gallon UST containing regular motor vehicle fuel was installed on the subject property in 1967. No spills or incidents related to the UST were identified in the EDR report. No additional information pertaining to the UST was available on GeoTracker or EnviroStor websites. A 1967 site map received from the City of Goleta Planning department depicts an underground gasoline storage tank and fuel dispenser located in the southern portion of the subject property. Based on review of aerial maps provided by EDR, from 1967 to at least 1977 a rectangular concrete pad appears to be located in the southern portion of the subject property indicating the presence of the UST and fuel dispenser. During the site reconnaissance, a concrete pad was not observed in the location of the former UST and fuel dispenser. Although no releases of hazardous material have been reported in association with the historic UST, unreported hazardous materials may have occurred and have the potential to be adversely impacting soil and groundwater beneath the subject property. Based on our research, it is unknown if any soil matrix or soil vapor assessments have been conducted in the vicinity of this historical UST. It is also unclear if the UST was removed from the subject property.

According to EDR, the UST listing indicates a UST is located onsite and is regulated by the Santa Barbara County Fire Department. During the site reconnaissance the location of the existing UST was observed in the southwestern portion of the subject property. According to documents provided by the Santa Barbara County Public Health Department (SBCPHD), a 1,800- gallon diesel double walled fiberglass tank was installed in 2009. No spills or incidents related to the USTs were identified in the EDR report or in the documents provided by the SBCPHD. No additional information pertaining to the UST was available on GeoTracker or EnviroStor websites. Although no releases of hazardous materials have been reported in association with the UST, unreported hazardous materials releases may have occurred and have the potential to be adversely impacting soil and groundwater beneath the subject property.

According to the online CalEPA Regulated Site Portal, the site is listed under three regulatory programs: Chemical Storage Facilities, Hazardous Waste Generator and Underground Storage Tank facility. A chemical storage report submitted on 8/6/2018 indicates a maximum daily amount of 1,200 to 2,999- gallons of diesel fuel is stored on the subject property. A total of twenty-three violations have been reported for the subject property. The majority of the violations are due to improper bookkeeping and are not indicative of a hazardous materials release. However, the following violations pertain to the condition of the UST located on the subject property:

4/7/2014:

1. Failure to comply with one or more of the following: maintain the spill bucket in good condition, containment free of debris/liquid, and/or to remove the contents of the spill bucket when a release/leak/spill was observed. Returned to compliance on 4/9/2015.

4/9/2015:

1. Failure of sensor to be located in the proper position/location. Returned to compliance on 4/9/2015.

4/8/2016:

1. Failure to maintain under-dispenser containment, sumps, and/or other secondary containment in good condition and/or free of debris/liquid. Returned to compliance on 4/7/2017.

4/10/2018:

1. Failure of the leak detection equipment to have an audible and visual alarm as required. 304 sensor in brine reservoir of vent transition sump was not functional, so this section of the UST system was not being monitored continuously. Returned to compliance on 4/13/2018.
2. About 1.5 inches of water/diesel mixture in vent transition sump, sensor was not in alarm. Sensor functionality was later confirmed. Returned to compliance on 4/13/2018.

4/12/2019:

1. The mechanical line leak detector installed is not capable of activating an audible/visual alarm. The monitoring system is not being checked by daily inspections or by remote electronic access.
2. Facility failure to keep water out of the secondary containment of UST systems installed on or after July 1, 2003. Water is continuously entering the vent box. Returned to compliance on 6/17/2019.

3. Facility failure to maintain the interstitial space such that a breach in the primary or secondary containment is detected before the liquid or vapor phase of the hazardous substance stored in the UST tank is released into the environment. Brine in the vent sump, and low brine level in the fill sump brine canister. Returned to compliance on 8/23/2019.

The subject property was not listed in any databases that are indicative of a hazardous materials release.

Adjacent Properties

Three adjacent properties were listed in databases searched by EDR.

- **AMTRAK Goleta Layover Facility - 25 S. La Patera Lane:** This property is located adjacent to the north of the subject property and is listed on the CUPA Listings, NPDES, CIWQS, CERS, AST, RCRA NonGen/ NLR, CERS HAZ WASTE and CERS database searched by EDR. According to EDR, the AST listing indicates a 3,250-gallon above ground storage tank is located on the AMTRAK property. No spills or releases associated with the AST were identified in the EDR report. According to the online CalEPA Regulated Site Portal, the site is listed under two regulatory programs: Chemical Storage Facilities and Hazardous Waste Generator. A chemical storage report submitted on 2/8/2019 indicates chemicals including urea (600-1,199 gallons), hydoxyethylamine bi-oxylate (600-1,199 gallons), disodium trioxosilicate (12-59 gallons) and diesel fuel (1,200-2,999 gallons) are stored on the subject property. A total of three violations have been reported for the 25 La Patera Lane property. Two of the violations are due to improper bookkeeping and are not indicative of a hazardous materials release. One violation reports the failure to properly dispose of hazardous waste at an authorized location. The site returned to compliance on 12/23/2014. The EDR listings for this AMTRAK site are not expected to impact the subject property.
- **Santa Barbara Lemon, Northrop Grumman, Aeonian Semiconductor Technology, S. B. Lemon Association (Now Powell Corp=Tenant), Powell Skateone Corporation, Dahl's Air Condition – 30 La Patera Lane:** This property is located adjacent to the east of the subject property and is listed on the LUST, SWEEPS UST, CA FID UST, RCRA NonGen/NLR, CERS HAZ WASTE, CERS, CUPA Listings, HIST CORTESE databases searched by EDR. According to EDR, a release of gasoline from a leaking UST was reported on this adjacent site in 1987. According to documents reviewed on GeoTracker, three 1,000-gallon USTs containing solvent-thinner solution were located at the northeast corner of the property and had holes "from corrosion, leaking plumbing and suffered from overfill contamination". Two 1,000-gallon USTs containing gasoline located at the southeast corner of the packing house had holes from corrosion and leaking plumbing. Two 5,000-gallon ASTs containing spray oil and located in the southeast corner of the property had "leaks in the plumbing and suffered from overfill". Soil excavated from the underground tank areas was stockpiled on the southern portion of this adjacent site. The stockpiled soil was removed from the site and disposed offsite at an accepting facility. The remaining in situ soil from the excavation areas were sampled and analyzed for constituents of concern, and the county determined that the excavated areas could be backfilled with suitable material. In addition, groundwater sampling was performed and the RWQCB determined groundwater did not appear to be contaminated. According to GeoTracker, the site is listed as, "Completed – Case Closed as of 1/7/1991". Based on the distance from the northeastern solvent UST release location (approximately 550 feet) and the distance from the southeastern UST gasoline release location (approximately 700 feet) and the groundwater flow direction (south-southeast), the

LUST listing associated with this adjacent property is not expected to impact the subject property.

- **Bardex Corporation, Bardex Corporation Machine Shop, Astro Aerospace Corp- 6338 Lindmar Drive:** This property is located adjacent to the west of the subject property and is listed on the RCRA-SQG, RCRA NonGen/ NLR, FINDS, ECHO, CUPA Listings, EMI, NPDES, CIWQS, CERS HAZ WASTE, CERS, CPS-SLIC, Cortese, CUPA Listings and ENF database searched by EDR. According to documents reviewed on GeoTracker, in 2000, a Phase I Environmental Site Assessment identified environmental concerns associated with the machine shop operations located on this adjacent site. In 2001 Bardex Corporation excavated and properly disposed of approximately 30 cubic yards of contaminated soil from beneath the machine ship. Five groundwater monitoring wells were installed. TCE, PCE, and cis-1, 2-DCE were found at concentrations exceeding the maximum contaminant level. According to GeoTracker, the site is listed as, "Open – Assessment & Interim Remedial Action as of 4/11/2001". However, according to the Second Quarter 2019 Groundwater Monitoring Report prepared by Apex Companies, LLC in 2019, diagrams indicate the TCE plume is located approximately 240 feet to the southwest of the subject property. Groundwater samples collected from MW- 2 located 75 feet to the southwest of the subject property reported non detect (ND) for all the constituents analyzed in 2013. Based on the ND concentrations, the distance from the subject property and the reported groundwater flow direction (south- southeast and away from the subject property), the release listing associated with this adjacent site is not expected to impact the subject property.

Upgradient Release Sites

Based on the anticipated groundwater flow direction to the south-southeast, there are no upgradient release sites listed by EDR.

SB Lemon Association was plotted approximately 850 feet upgradient of the subject property. However, this listing has been misplotted by EDR. This site is actually located adjacent to the southeast of the subject property and is summarized in the Adjacent Properties section above.

Review of State of California Division of Oil, Gas, and Geothermal Resources Records

A review of the Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) Online Mapping System[2] indicates that no oil or gas wells are located on the subject property or adjacent properties. The nearest well is located about 1,500 feet to the southwest of the subject property and is described as follows:

- Well 0408303976 – Dry Hole, status plugged, operated by Amerada Hess Corp.

[2] https://maps.conservation.ca.gov/doggr/wellfinder/

Review of National Pipeline Mapping System Records

A review of the National Pipeline Mapping System (NPMS) online Public Map Viewer[3] indicates that no gas transmission pipelines or hazardous liquid pipelines are located on the subject property or adjacent properties.

Review of California Statewide PFAS Investigation

Earlier in 2019, the California State Water Resources Control Board sent assessment requirements to property owners of sites that may be potential sources of per - and polyfluoroalkyl substances (PFAS). These sites currently include select landfills, airports, and chrome plating facilities. According to the SWRCB, "PFAS are a large group of human-made substances that do not occur naturally in the environment and are resistant to heat, water, and oil" (RWQCB 2019).

Our November 20, 2019 review of the California 2019 Statewide PFAS Investigation online Public Map Viewer[4] indicates that there are no current chrome plating, airport, or landfill PFAS orders on the subject property or adjacent sites. However, an airport facility is located within one-half mile of the subject property. The airport is identified as Santa Barbara Municipal Airport located approximately 0.3 miles to the south of the subject property.

Known or Suspect Contaminated Release Sites with Potential Vapor Migration

The EDR report was reviewed to identify nearby known or suspect contaminated sites that have the potential for contaminated vapor originating from the nearby site to be migrating beneath the subject property. Based on the ASTM E2600-15, *Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*, the following minimum search distances were initially used to determine if contaminated soil vapors from a nearby known or suspect contaminated site have the potential to be migrating beneath the subject property:

- 1/10 mile (528 feet) for petroleum hydrocarbons
- 1/3 mile (1,760 feet) for other contaminants of concern (COCs)

If known or suspect contaminated sites are located within the above referenced distances from the subject property, online resources are reviewed to determine the extent of the contaminated plume at those sites. The following describes search distances for contaminated plumes of petroleum hydrocarbons (30 feet from the subject property) and other COCs (100 feet from the subject property). Per ASTM E2600-15, vapors associated with impacted soil or groundwater present within these distances have the potential to migrate beneath the subject property.

Petroleum Hydrocarbons

There is an existing 1,800- gallon diesel-fuel UST located on the subject property. Based on our research, it does not appear that any soil matrix or soil vapor assessments have been conducted in

[3] https://www.npms.phmsa.dot.gov/PublicViewer/

[4] https://gispublic.waterboards.ca.gov/portal/apps/webappviewer/index.html?id=4feba1766c224dc99eadea06ef3bd019

the vicinity of the UST. Therefore, it is unknown if the UST poses a vapor encroachment concern for the building/occupants on the subject property.

In addition, according to EDR, the subject property was listed in the HIST UST database searched by EDR. The HIST UST listing indicates one historical 6,000-gallon UST containing regular motor vehicle fuel was installed on the subject property in 1967. No spills or incidents related to the UST were identified in the EDR report. No additional information pertaining to the UST was available on GeoTracker or EnviroStor websites. A 1967 site map received from the City of Goleta Planning department depicts an underground gasoline storage tank and fuel dispenser located in the southern portion of the subject property. Based on review of aerial maps provided by EDR, in 1967 through 1977 a rectangular concrete pad appears to be located in the southern portion of the subject property indicating the presence of the UST and fuel dispenser. Although no releases of hazardous material have been reported in association with the historic UST, unreported hazardous materials may have occurred. Based on our research, it is unknown if any soil matrix or soil vapor assessments have been conducted in the vicinity of this historical UST. Therefore, it is unknown if the UST poses a vapor encroachment concern for the building/occupants on the subject property.

Not including the existing subject property UST and historical UST, based on our review of the EDR report information as indicated above, there are no other known or suspect petroleum hydrocarbon-contaminated sites within 528 feet of the subject property. Therefore, per ASTM E2600-15, as this distance exceeds the 30-foot distance considered the critical distance wherein such migration may pose a threat to the subject property, there are no potential threats to the subject property posed by the potential migration of petroleum hydrocarbon vapors from adjacent or nearby listed sites.

Other COCs

Based on our review of the EDR report, no releases on the subject property have been reported.

However, based on our review of the EDR report, known or suspect release sites identified within 1/3 mile of the subject property are as follows:

- One adjacent hydrologically crossgradient known or suspect release site (Bardex Corporation, Astro Aerospace Corp- 6338 Lindmar Drive)

According to the Second Quarter 2019 Groundwater Monitoring Report prepared by Apex Companies, LLC in 2019, diagrams indicate the TCE plume is located approximately 240 feet to the southwest of the subject property. Groundwater samples collected from MW- 2 located 75 feet to the southwest of the subject property reported non detect (ND) for all the constituents analyzed in 2013. Based on the ND concentrations, the distance from the subject property and the reported groundwater flow direction (south- southeast and away from the subject property), the TCE plume associated with this adjacent site is not expected to impact the subject property.

Historical Use Information on the Property and the Adjoining Properties

The historical records review completed for this Phase I ESA includes aerial photographs, topographic maps and city directories as detailed in the following sections. Copies of the historical resources reviewed are included in Appendix C. Table 3 provides a summary of the historical use information available for the subject property.

Review of Aerial Photographs

Aerial photographs from EDR's aerial photograph collection were obtained. In addition, a current aerial from Google Earth was reviewed. The aerial photographs were reviewed on October 16, 2019.

Review of Historical Topographic Maps

Historical topographic maps from EDR's map collection were obtained. The historical topographic maps were reviewed on October 16, 2019.

Review of City Directory Listings

EDR was contracted to provide copies of city directory listings for the subject property. The city directory listings were reviewed on October 21, 2019.

Review of Fire Insurance Maps

EDR was contracted to provide copies of fire insurance maps (i.e. Sanborns) for the subject property. As indicated in the attached report, fire insurance maps were not available for the subject property or adjacent properties.

Review of City of Goleta Building Permit Records

Historical building permits were received by the City of Goleta Planning Department on December 4, 2019. The files contained miscellaneous records including building plans, site maps, land use documents, electrical and mechanical permits. Records are included in Appendix A of this report.

Other Historical Sources

Based on the historical information obtained, no additional historical sources were reviewed.

Summary of Historical Uses

Subject Property

Table 3 Historical Use of the Subject Property

Year	Use	Source
Subject Property (27 S. La Patera Lane)		
1928	The subject property appears to be occupied by part of a rural residential ranch (part of a ranch/farmhouse or barns and sheds) and an orchard.	Aerial Photograph (AP)
1938	Similar to the 1928 AP. The TM depicts one structure is located on the subject property.	AP, Topographic Map (TM)
1942	Similar to the 1938 TM.	TM
1943	Similar to the 1938 AP.	AP
1947	Similar to the 1943 AP. Similar to the 1942 TM.	AP, TM
1950	Similar to the 1947 TM.	TM
1951	Similar to the 1950 TM.	TM
1954	The residential house (or barn/shed) and orchard appear to be removed from the subject property. One small building (barn or shed) remains in the southwestern corner and a structure (approximate location of the **pump house** and **capped water supply well**) in the northwestern portion of the property.	AP
1967	The subject property is developed with the existing large commercial structure and a parking lot. In addition, the TM depicts the subject property is developed with a large structure. *Sears Roebuck & Co (Service Department)* A building permit site map depicts an **underground gasoline storage tank** and **fuel dispenser** located in the southern portion of the subject property. In addition, **two sumps** are depicted, one in the northwest corner and one in the northeastern portion of the subject property. A trench drain is depicted on the northeastern portion of the subject property near one of the sumps, as well as "service shops" within the southeastern portion of the structure. A **pump house** and **capped water supply well** is depicted in the northwestern portion of the subject property.	AP, City Directory (CD), Building Permit (BP)
1972	*Sears Roebuck & Co (Service Department)*	CD
1977	Similar to the 1967 AP.	AP
1982	Similar to the 1951 TM.	TM
1984	Similar to the 1977 AP.	AP

Year	Use	Source
1985	*Raytheon*	BP
1987	*Durham Transportation of Cal*	CD
1992	*Direct Relief International*	CD
1994	Similar to the 1984 AP.	AP
1995	*Direct Relief International*	CD
2000	*Coastline Painting & Drywall*	CD
2005	Similar to the 1994 AP. *Direct Relief International*	AP, CD
2008	*Direct Relief International*	BP
2009	Similar to the 2005 AP.	AP
2010	*Direct Relief International, Win -It-Too Inc.*	CD
2012	Similar to the 2009 AP.	AP
2014	*Direct Relief*	CD
2016	Similar to the 2012 AP.	AP
2018	*Direct Relief*	Owner Questionnaire

*__Bold__ listings indicate commercial/industrial uses with the potential to impact the subject property

Based on our review of the documents listed above, it appears that the subject property was developed with the following:

- 1928 to 1951: Rural residential structures (part of a ranch/farmhouse or barns and sheds) and an orchard. The railroad tracks to the north of the subject property have been present since at least 1928.
- 1954: The residential house (or barn/shed) and orchard appear to be removed from the subject property. One small building (barn or shed) remains in the southwestern corner.
- 1967 to present: Large commercial structure and a parking lot (existing)
- 1967: A 1967 building permit site map depicts an underground gasoline storage tank and fuel dispenser located in the southern portion of the subject property. In addition, two sumps are depicted, one in the northwest corner and one in the northeastern portion of the subject property. A trench drain is depicted on the northeastern portion of the subject property near one of the sumps, as well as "service shops" within the southeastern portion of the structure. A pump house and capped water supply well is depicted in the northwestern portion of the subject property.

City directories provided for the subject property indicate that 27 S. La Patera Lane was occupied by the following:

- Sears Roebuck & Co (Service Department) (1967 - 1972)
- Raytheon (1985)
- Durham Transportation of Cal (1987)
- Direct Relief International (1992 - 2010)

- Win-It-Too, Inc. (2010)
- Direct Relief (2014)

Northern Adjacent Properties (25 S. La Patera Lane)

Based on our review of the documents listed above, it appears that the northern adjacent properties were developed with the following:

- 1928 to present day: Railroad

City directories provided for the northern adjacent properties indicate that 25 S. La Patera Lane was occupied by the following:

25 S. La Patera Lane:

- National Railroad Pass Corp. (2000)
- Jerry Akers (2005)

Eastern Adjacent Property (30 S. La Patera Lane)

Based on our review of the documents listed above, it appears that the eastern adjacent properties (across S La Patera Lane) were developed with the following:

- 1928: Undeveloped land
- 1938: One large industrial structure
- 1943: One industrial structure and three additional smaller structures
- 1947 to 1994: Structural additions onto the 1943 structures
- 2005 to present: One industrial structure and one small structure (existing)

City directories provided for the eastern adjacent properties indicate that 30 S. La Patera Lane was occupied by the following:

- Don Al Cabinet Co., Flame-O-Grate Corp Charcoal Lighter Manufacturer (1967)
- Royal Cultured Marble Co. (1972 - 1982)
- Shoreline Sportswear Co., Property Improvement of Goleta (1972)
- Coastal Classics (1977)
- Lestrade Leather, Lestrade of California, Inc. (1977 - 1982)
- Haakenson Bob Fiberglass Construction (1982 -1992)
- Turner Electric (1987 - 1992)
- Powell Corporation, Peralta Powell, Rogers Manufacturing, Inc. (1992)
- A1 Appliance Repair (1995 - 2000)
- Lens of Santa Barbara, Street Hockey Plus (1995)
- Skate One Corp. (1995 - 2014)

- Aqua- Flo Supply Inc. (2000 - 2014)
- E-Filingcom, Inc., Image-X Enterprises, Inc., Wyatt Technology Corporation (2000)
- Map Link, Inc. (2000 - 2010)
- Discount Online Warehouse, Newave, Inc., Powell Skateboards, Uni, Vanlines (2005)
- Eulogy Wheels (2005 - 2014)
- Butterfly Mail, Inc., Kool Mail, LLC, George Powell (2010)
- Daketta Pacific (2010 - 2014)
- Benchmark Map, LLC, Northrop Grumman Systems Corp., Zad (2014)

Southern Adjacent Property (33 S. La Patera Lane)

Based on our review of the documents listed above, it appears that the southern adjacent properties were developed with the following:

- 1928 to 1954: An orchard and various rural structures
- 1967: Vacant land and a vegetated area.
- 1977: One commercial structure
- 1984 to 2009: Four commercial structures (three of which are existing structures)
- 2012: Three commercial structures (existing)
- 2016 to present day: Three commercial structures and a storage yard

City directories provided for the southern adjacent properties indicate that 33 S. La Patera Lane was occupied by the following:

- Motion Engineering, Inc. (1995 - 2014)
- Kollmorgen Corporation (2014)

Western Adjacent Property (6338 Lindmar Drive)

Based on our review of the documents listed above, it appears that the western adjacent properties were developed with the following:

- 1928: One rural structure and vacant land
- 1938 to 1947: One rural structure and orchards
- 1954: One rural structure and vacant land
- 1967: One commercial structure (existing building) and vacant land
- 1977: Structural addition onto the 1967 structure
- 1984 to present: Structural addition onto the 1977 structure (one large industrial structure)

City directories provided for the western adjacent properties indicate that 6338 Lindmar Drive was occupied by the following:

- Truecut Products Inc. Value (1967)
- Nimbus Water Systems of Santa Barbara (1972 - 1977)
- Hydranautics (1977 – 1982)
- Ramak Corporation (1977)
- Bardex Industries, Inc. (1982)
- Esbe Leasing Group (1982 - 1992)
- Bardex Corporation (1987 - 2014)
- H Manufacturing (1987)
- International Shipyard (1987 - 1992)
- TRW Astros Aerospace (2000)

Gaps in Historical Sources

Several gaps of greater than five years were identified in the historical records reviewed, from 1928 to 1938 and from 1954 to 1967. The 1928 to 1938 gap is considered insignificant because the subject property use appears to be similar prior to and following the gaps. The use of the subject property changes from agricultural land to the existing commercial warehouse structure in the 1954 to 1967 gap. This data gap/change in land use is considered to be insignificant since it is likely (based on the other historical records reviewed), that the existing warehouse was the first developed use following the agricultural use of the subject property.

Interviews

Rincon performed interviews regarding the subject property and surrounding areas. The purpose of the interviews was to discuss current and historical conditions and to obtain information indicating the presence of RECs in connection with the subject property.

Interview with Owner

An interview questionnaire was provided to the current property owner, the City of Goleta, prior to the site reconnaissance. Michael Baris, Emergency Services Coordinator and Claudia Dato, Senior Project Manager with the City of Goleta completed the Owner Questionnaire on October 30, 2019. A copy of the completed questionnaire is included in Appendix A. The following information is based on our review of the completed questionnaire.

Mr. Baris and Ms. Dato indicated the following:

- The subject property is currently vacant (unoccupied).
- The subject property was formerly used as combined warehouse and office space for Direct Relief International.
- The structure on the subject property was constructed in 1967 as an industrial warehouse facility.
- The City of Goleta obtained ownership of the subject property in 2018.
- The former owner of the subject property was Direct Relief International.

Mr. Baris and Ms. Dato also presented the following information regarding hazardous material and petroleum hydrocarbon storage at the subject property.

- The subject property contains an underground fuel storage tank (currently holds 450 gallons of diesel fuel with a total capacity of 1,800-gallons) that supplies an onsite generator.
- Hydraulic forklifts are located onsite for warehouse use.

Mr. Baris and Ms. Dato indicated that they are unaware of the presence of industrial fill dirt, pits, ponds, lagoons, sumps, clarifiers, solvent degreasers, stained soil, vent pipes, fill pipes, or access ways, stained surfaces, private wells, non-public water systems, transformers, capacitors, records indicating the presence of polychlorinated biphenyls, or records indicating the presence of pesticides or herbicides at the subject property.

Mr. Baris and Ms. Dato indicated that they are not aware of any pending, threatened, or past litigation or administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property. In addition, they are not aware of any notice from any government entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products at the subject property.

Interview with Site Manager

A site manager was not identified to Rincon. However, information provided by Mr. Baris, Emergency Services Coordinator with the City of Goleta, pertaining to the subject property is located in the Site Reconnaissance section below.

Interviews with Occupants

No occupants were interviewed as part of this research effort.

Interviews with Local Government Officials

Rincon contacted the following agencies for records pertaining to the subject property and/or adjacent properties:

- **City of Goleta Planning Department-** historical building permits were received by the City of Goleta Planning Department on December 4, 2019. The files contained miscellaneous records including building plans, site maps, land use, electrical and mechanical permits. Records are summarized above in the Summary of Historical Uses section of this report and are included in Appendix A of this report.
- **City of Goleta -**Information provided by the City of Goleta is summarized in the User and Owner Questionnaire sections of this report. Questionnaires are included in Appendix A of this report.
- **Santa Barbara County Public Health Department (SBCPHD)-** SBCPHD provided records for the subject property on November 25, 2019. Records reviewed are summarized in the Additional Environmental Record Sources section of this report. In addition, records are included in Appendix A of this report.

Interviews with Others

Rincon did not attempt to interview neighboring property owners or others as part of this Phase I ESA.

Site Reconnaissance

Rincon performed a reconnaissance of the subject property on October 31, 2019 accompanied by Claudia Dato, City Project Manager with the City of Goleta and Michael Baris, Emergency Services Coordinator, with the City of Goleta. The purpose of the reconnaissance was to observe existing subject property conditions and to obtain information indicating the presence of RECs in connection with the subject property.

Methodology and Limiting Conditions

The site reconnaissance was conducted by:

1. Observing the subject property from public thoroughfares,
2. Observing the adjacent properties from public thoroughfares,
3. Observing the interior of the onsite structures,
4. Observing the exterior of the structures,
5. Backtracking to correlate exterior features with interior features, as necessary, and
6. Observing the subject property from driveways, paved roads, and sidewalks.

Current Use of the Property and Adjacent Properties

The subject property is currently vacant with a portion of the building in use by Food Bank for food storage. Adjacent businesses/properties include the Goleta Amtrak Station, the Historical Hill House Adobe, Microdyn- Nadir, Cox Communications, Zad Fashion Inc., Aqua Flo Supply, Kollmorogen Pacific Scientific, Pacific Materials Lab, Bardex Corporation, and Northrop Grumman Astro Aerospace.

Past Use of the Property and Adjacent Properties

According to Mr. Baris, the subject property was previously occupied by Direct Relief International. The building located on the subject property was in use for offices and the storage of emergency medical supplies, dry foods and other miscellaneous relief supplies.

Based on our site reconnaissance, past uses at the adjacent properties are not readily apparent.

Current or Past Uses in the Surrounding Areas

The subject property is surrounded by commercial, and light industrial land uses as detailed in the Site Description section of this report. Past uses of the surrounding area are not readily apparent based on the site reconnaissance.

Geologic, Hydrogeologic, Hydrologic, and Topographic Conditions

Geologic, hydrogeologic, hydrologic, and topographic information are as previously stated in the Physical Settings Section of this report.

General Description of Structures

During the site reconnaissance, one structure and a parking lot were observed on the subject property. The structure contains two-stories of vacant office space and a large vacant warehouse. The exterior of the structure includes parking lots, a vacant cement-paved storage yard and a loading dock.

Roads

Access to the subject property is available from a driveway on S La Patera Lane.

Potable Water Supply

Goleta Water District currently supplies potable water to the subject property.

Sewage Disposal System

Goleta Sanitary District currently provides sanitary sewer service for the subject property.

Interior and/or Exterior Observations

Storage Tanks

During the site reconnaissance, Rincon observed evidence of one below-ground diesel fuel storage tank on the subject property. According to Mr. Baris, the UST contains 450-gallons of diesel fuel with a maximum capacity of 1,800-gallons to supply the onsite generator. Mr. Baris indicated that the UST is currently in compliance with local and state regulations. No other above-ground or below-ground tanks were reported by the subject property representative or observed during the site reconnaissance.

In addition, Rincon observed one 3,000-gallon above-ground emergency overflow used oil storage tank located adjacent to the north of the subject property on the Amtrak property. The tank was located within secondary containment. A spill kit station container was observed adjacent to the tank. Rincon did not observe indications of a release from the tank on the northern adjacent property.

Drums

During the site reconnaissance, Rincon observed one 55-gallon drum on the subject property (with a hazardous waste sticker dated 4/12/19 and labeled as containing rainwater). It is presumed that the

drum contents are associated with the Cal EPA violation reported on 4/12/19 indicating the following:

- Facility failure to keep water out of the secondary containment of UST systems installed on or after July 1, 2003. Water is continuously entering the vent box. Returned to compliance on 6/17/2019.

No other drums were reported by the site representative or observed during the site reconnaissance. Rincon did not observe indications of releases from the drum on the subject property.

Hazardous Substances and Petroleum Products in Connection with Identified Uses

Not including the UST and the drum described above, no other hazardous substances or petroleum products were identified at the subject property.

Odors

During the site reconnaissance, Rincon did not identify any strong, pungent, or noxious odors.

Pools of Liquid

During the site reconnaissance, no pools of liquid were observed.

Hazardous Substances and Petroleum Products Containers Not in Connection with Identified Uses

No hazardous substances or petroleum products not in connection with identified uses were observed at the subject property.

Unidentified Substance Containers

No unidentified substance containers or unidentified containers that might contain hazardous substances were observed during the site reconnaissance.

Indications of Polychlorinated Biphenyls (PCBs)

During the site reconnaissance, Rincon observed a two electrical utility poles containing three pole-mounted transformers located along the southern portion of the subject property parking lot and a pad-mounted transformer located in the eastern adjacent planter. There was no indication of a release in the vicinity of the transformers.

In addition, one hydraulic fork-lift was observed in the Food Bank storage room located on the western portion of the subject property building. There was no indication of a release in the vicinity of the hydraulic fork-lift.

Other Conditions of Concern

During the site reconnaissance, Rincon did not note any of the following:

- Stains or corrosion
- Clarifiers and sumps
- Degreasers/parts washers
- Pools of liquid
- Pits, ponds, and lagoons
- Stained soil or stained pavement
- Stressed vegetation
- Solid waste/debris
- Wastewater
- Septic systems/effluent disposal system
- Wells

In addition, according to Mr. Baris, no wells are located on the subject property.

Evaluation

Findings

Known or suspect RECs associated with the subject property include the following:

- Former agricultural use of the subject property.
- The presence of a 6,000-gallon historic UST containing motor vehicle fuel installed on the subject property in 1967.
- The presence of an existing 1,800-gallon diesel UST located on the subject property.
- The presence of a capped water supply well reported on the subject property.
- The former industrial use of the subject property as a Durham (bus) transportation facility, as well as the presence of former sumps and "service shops".
- The presence of railroad tracks adjacent to the north of the subject property.
- TCE plume located adjacent to the southwest.

Opinions

A. **Former agricultural use of the subject property**. According to the historical resources reviewed, the subject property appears to have been used for agricultural purposes from 1928 to 1951. Due to the historic use of the subject property for agriculture purposes, there is a potential that the property could be affected with pesticide, or other chemicals used routinely in agricultural production. Because the subject property has not been in agricultural use since 1951 (68 years), and due to the earth moving involved during the grading of the subject property during the development of the site, it is likely that the levels of pesticides in the soil (if any) have diminished over time. In addition, based on the fact that the subject property is paved, and structures are present onsite, there is no direct pathway for human contact (e.g., inhalation, ingestion) with the former agricultural soils. However, because redevelopment of the subject property is planned, there is the potential that during redevelopment soils impacted with pesticides could be encountered, and could require special handing during redevelopment. Therefore, the historical agricultural land use is considered a *Potential Recognized Environmental Condition.*

B. **The presence of a 6,000-gallon historic UST containing motor vehicle fuel installed on the subject property in 1967.** According to EDR, the subject property was listed in the HIST UST database. The HIST UST listing indicates one historical 6,000-gallon UST containing regular motor vehicle fuel was installed on the subject property in 1967. No spills or incidents related to the UST were identified in the EDR report. No additional information pertaining to the UST was available on GeoTracker or EnviroStor websites. A 1967 site map received from the City of Goleta Planning department depicts an underground gasoline storage tank and fuel dispenser located in the southern portion of the subject property. Based on review of aerial maps provided by EDR, from 1967 to at least 1977 a rectangular concrete pad appears to be located in the southern portion of the subject property indicating the presence of the UST and fuel dispenser. During the site reconnaissance, a concrete pad was not observed in the location of the former UST and fuel dispenser. Although no releases of hazardous material have been

reported in association with the historic UST, unreported hazardous materials may have occurred and have the potential to be adversely impacting soil and groundwater beneath the subject property. Based on our research, it is unknown if any soil matrix or soil vapor assessments have been conducted in the vicinity of this historical UST. It is also unclear if the UST was removed from the subject property. Therefore, the historic UST on the subject property is considered a *Recognized Environmental Condition*.

C. **The presence of an existing 1,800-gallon diesel UST located on the subject property.** During the site reconnaissance, Rincon observed evidence of one below-ground diesel fuel storage tank on the subject property. According to Mr. Baris, the UST currently contains 450-gallons of diesel fuel with a maximum capacity of 1,800-gallons. Mr. Baris indicated that the UST is currently in compliance with applicable local and state regulations. However, although no releases have been reported in association with the UST, any unreported hazardous materials releases have the potential to be adversely impacting soil and groundwater beneath the subject property. Therefore, the current onsite UST is considered a *Recognized Environmental Condition*.

D. **The presence of a capped water supply well reported on the subject property**. According to a 1967 site map provided by the City of Goleta Planning Department, a capped water supply well and pump house are depicted in the northwestern portion of the subject property. Based on review of the aerial maps, the pump house is observed in the northwestern portion of the subject property from 1954 to at least 1967. No further information was available within documents provided by the City of Goleta. The presence of the capped water supply well is considered an "other condition of concern" as described below.

E. **The former industrial use of the subject property as a Durham Transportation facility, as well as the presence of former sumps and "service shops".** A 1967 building permit site map depicts an underground gasoline storage tank and fuel dispenser located in the southern portion of the subject property. In addition, two sumps are depicted, one in the northwest corner and one in the northeastern portion of the subject property. A trench drain is depicted on the northeastern portion of the subject property near one of the sumps, as well as "service shops" within the southeastern portion of the structure. A pump house and capped water supply well is depicted in the northwestern portion of the subject property. According to our research, it appears the subject property was in industrial use (Raytheon) in 1985 and in use as a bus transportation facility (Durham Transportation) in at least 1987. In addition, the EDR report indicates that the following hazardous waste was generated at the site in 1989 through at least 1992: halogenated solvents, unspecified solvent mixture, oil/water separation sludge, waste oil and mixed oil. These listings identified in the EDR report may be indicative of bus maintenance or repair being conducted at the subject property. In addition, the generation of "oil/water separation sludge" may indicate the presence of a former oil water separator or clarifier on the subject property. The former industrial use of the subject property as Raytheon and Durham Transportation facility, as well as the presence of former sumps and "service shops" depicted in the 1967 site plan is considered a *potential Recognized Environmental Condition*.

F. **The presence of railroad tracks adjacent to the north of the subject property.** A railroad right-of-way has been present adjacent to the north of the subject property since at least 1928. According to the 1967 site map provided by the City of Goleta Planning Department, railroad spurs are reported to be located directly adjacent to the north of the subject property. Railroad ties were historically treated with creosote, and the track beds were historically treated with herbicides for weed management. Therefore, hydrocarbons, metals, herbicides, and semi volatile organic compounds (creosote, naphthalene) from the railroad activities are potentially present in

the soils surrounding the railroad tracks. The presence of the northern adjacent railroad is considered a *potential Recognized Environmental Condition*.

G. **TCE plume located adjacent to the southwest.** According to the Second Quarter 2019 Groundwater Monitoring Report prepared by Apex Companies, LLC in 2019, diagrams indicate the TCE plume is located approximately 240 feet to the southwest of the subject property. Groundwater samples collected from MW- 2 located 75 feet to the southwest of the subject property reported non detect (ND) for all the constituents analyzed in 2013. Based on the ND concentrations, the distance from the subject property and the reported groundwater flow direction (south- southeast and away from the subject property), the TCE plume associated with this adjacent site is not expected to impact the subject property. Therefore, the presence of a TCE plume located adjacent to the southwest is considered *de minimis* with respect to the subject property.

Conclusions

Rincon has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E1527 for the Goleta Train Depot Project located at 27 S. La Patera Lane in Goleta, California. Any exceptions to, or deletions from, this practice are described in the Deviations section of this report.

This assessment has revealed evidence of two RECs, three potential RECs and one other condition of concern in connection with the subject property as follows:

Recognized Environmental Conditions

1. The presence of a 6,000-gallon historic UST reported on the subject property.
2. The presence of an existing 1,800-gallon diesel UST located on the subject property.

Potential Recognized Environmental Conditions

1. Former agricultural use of the subject property
2. The former industrial use of the subject property as a bus transportation facility and other manufacturing uses, as well as the presence of former sumps and “service shops”.
3. The presence of railroad tracks adjacent to the north of the subject property

Other Condition of Concern

1. The presence of a capped water supply well reported on the subject property.

Recommendations

Due to the historical use of the subject property for agricultural purposes, there is a potential that the subject property could be affected with pesticides, or other chemicals used routinely in agricultural production. Rincon recommends collecting shallow soil samples from the subject property and analyzing these samples for pesticides and arsenic.

To evaluate the potential subject property impact associated with the northern adjacent railroad tracks, we recommend a shallow soil sampling assessment on the northern boundary of the subject property to determine if hydrocarbons, metals, herbicides, and semi volatile organic compounds

from the railroad activities are present in the shallow soil on the subject property. In addition, based on the historical agricultural use of the area, we also recommend that soil samples be analyzed for pesticides, as these chemicals may have been transported via railcars/railroad tracks.

To evaluate the potential subject property impact associated with the former industrial use of the subject property as a bus transportation facility, as well as the presence of former sumps and "service shops", Rincon recommends that geophysical survey be conducted in the area of the underground features and that a soil matrix and soil vapor assessment be conducted on the subject property in the location of the underground features (sumps and trench drain, as wells as within the former "service shop" areas.

To evaluate the Historical UST on the subject property, we recommend a geophysical survey be conducted in the location of the historical UST and we recommend that a soil matrix and soil vapor assessment be conducted on the subject property in the vicinity of the former onsite UST

To evaluate the potential subject property impact associated with the current diesel UST located on the western portion of the subject property, Rincon recommends a soil matrix assessment in the vicinity of the UST to determine if impacted soil is present in the vicinity of the existing UST beneath the subject property.

In addition, if the UST is to be removed as part of the redevelopment of the subject property, then Rincon recommends proper tank abandonment and removal in accordance with local and state regulatory agency protocols.

Regarding the historical capped water supply well and pumphouse, we recommend that if a capped water supply well is present beneath the subject property, that it be properly abandoned, or re-abandoned to current standards in accordance with local and state regulatory agency protocols.

During redevelopment of the site, a Soil Management Plan should be prepared and followed by the development contractor. The Plan will identify what should be done in the event that previously unidentified features (USTs, clarifiers, sumps or other underground features) are uncovered during the redevelopment of the site.

Although not considered a REC, based on the age of the onsite structure (constructed as early as 1967), asbestos-containing materials and lead-based paint may be present in the building on the subject property. Therefore, Rincon recommends conducting an asbestos-containing building materials and lead-based paint survey at the subject property.

Deviations

Deviations from ASTM E1527-13 practice were not encountered during the completion of this Phase I ESA.

References

The following reference materials were used in preparation of this Phase I ESA:

Aerial Photographs

Photos provided by Environmental Data Resources, Inc. (EDR).

Building Permits

Historical building permits were received by the City of Goleta Planning Department on December 4, 2019.

City Directory Listings

Listings provided by EDR.

Environmental Database

EDR report dated October 16, 2019.

Geology

California Geologic Survey (CGS), *California Geomorphic Provinces Note 36*, December 2002. Accessed October 21, 2019;

USGS Geologic Map of the Goleta Quadrangle (Thomas W. Dibblee, Jr. 1987), https://ngmdb.usgs.gov/mapview/. Accessed October 21, 2019;

California Department of Health Services (DHS) publication *Survey of Residential Indoor and Outdoor Radon Concentrations in California* (dated March 1990), Accessed October 21, 2019;

California Department of Public Health (CDPH) *California Indoor Radon Test Results* sorted by zip code (Updated 2016), http://maps.conservation.ca.gov/cgs/radon/. Accessed October 21, 2019.

Groundwater

California Department of Water Resources (DWR), *California's Groundwater Bulletin 118*, 2003, http://www.water.ca.gov/groundwater/bulletin118/publications.cfm. Accessed October 17, 2019;

RWQCB online database (GeoTracker), http://geotracker.waterboards.ca.gov/. Accessed October 17, 2019.

Historical Topographic Maps

Maps provided by EDR.

Oil and Gas Records

State of California, Division of Oil, Gas, and Geothermal Resources (DOGGR) website: https://www.conservation.ca.gov/dog/Pages/Wellfinder.aspx. Accessed October 17, 2019.

PFAS (Per- and Polyfluoroalkyl Substances)

California State Water Resources Control Board (SWRCB) online 2019 Statewide PFAS Investigation online Public Map Viewer: https://gispublic.waterboards.ca.gov/portal/apps/webappviewer/index.html?id=4feba1766c224dc99eadea06ef3bd019. Accessed November 20, 2019.

Pipelines

National Pipeline Mapping System (NPMS) Public Map Viewer: https://www.npms.phmsa.dot.gov/PublicViewer/. Accessed October 17, 2019.

Topography

USGS topographic map (Goleta Quadrangle, 2012).

Other

Department of Toxic Substances Control (DTSC) online EnviroStor database: http://www.envirostor.dtsc.ca.gov/public/. Accessed October 17, 2019;

CalEPA Regulated Site Portal: https://siteportal.calepa.ca.gov/nsite/. Accessed October 21, 2019.

Signatures of Environmental Professionals

The qualified environmental professionals that are responsible for preparing the report include Walt Hamann and Sarah Larese. Their qualifications are summarized in the following section.

"We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in 312.10 of 40 CFR 312. We have the specific qualifications based on education, training and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312."

Signature

December 30, 2019
Date

Walt Hamann, PG, CEG, CHG
Name

Vice President
Title

Signature

December 30, 2019
Date

Sarah A. Larese
Name

Senior Environmental Scientist
Title

Qualifications of Environmental Consultants

The environmental consultants responsible for conducting this Phase I ESA and preparing the report include Walt Hamann, Sarah Larese and Michelle Carter. Their qualifications are summarized below.

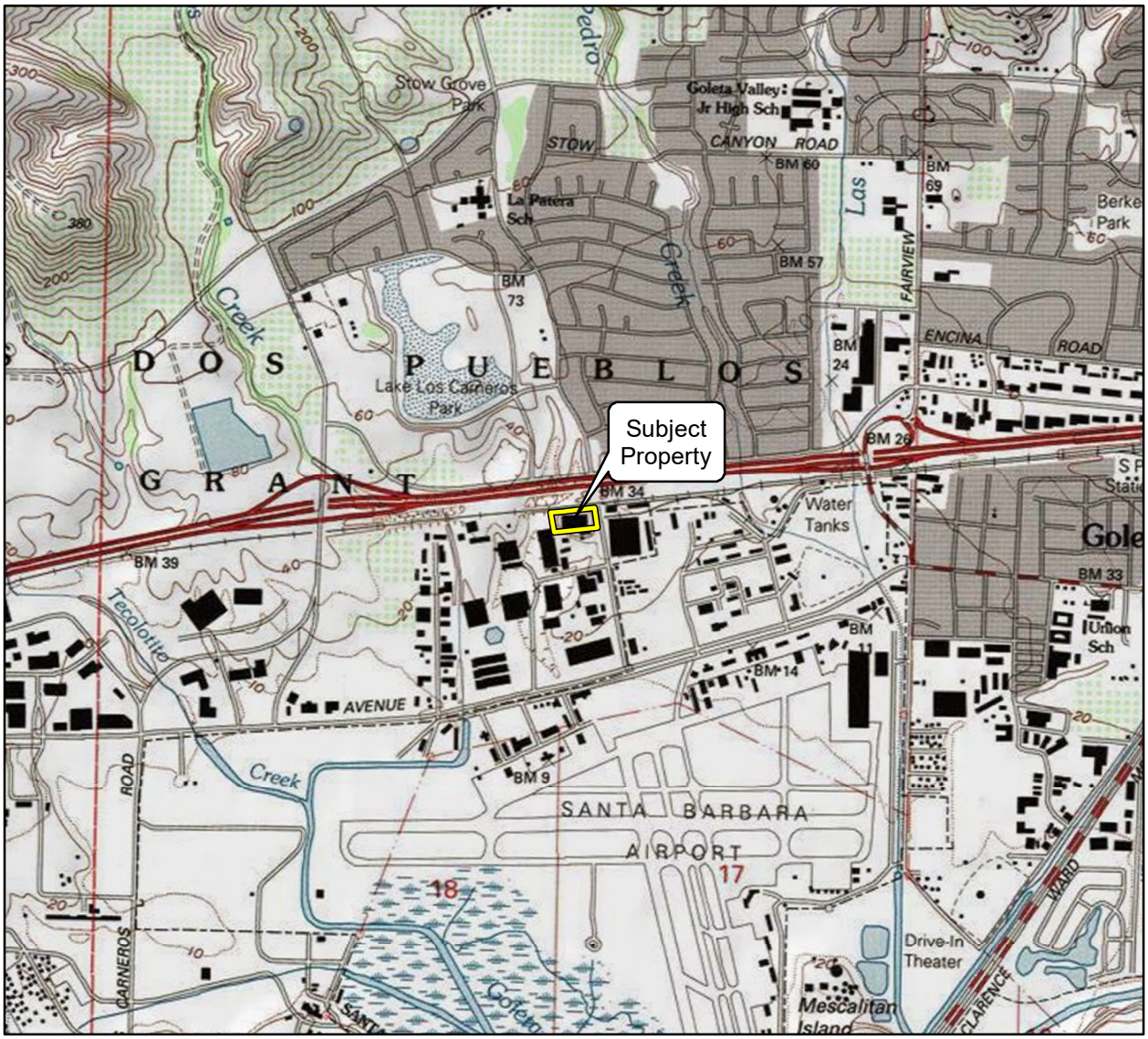
Environmental Professional Qualifications	**X2.1.1 (2) (i) - Professional Engineer or Professional Geologist License or Registration, and 3 years of full-time relevant experience**	**X2.1.1 (2) (ii) - Licensed or certified by the Federal Government, State, Tribe, or U.S. Territory to perform environmental inquiries**	**X2.1.1 (2) (iii) – Baccalaureate or Higher Degree from and accredited institution of higher education in a discipline of engineering or science and the equivalent of 5 years of full-time relevant experience**	**X2.1.1 (2) (iii) – Equivalent of 10 years of full-time relevant experience**
Walt Hamann	PG, CHG, CEG		MS Geology	30 years
Sarah Larese			BA Environmental Studies	19 years
Michelle Carter			BS Earth Science	1 year

Walt Hamann, PG, CEG, CHG, is a Principal and Senior Geologist with Rincon Consultants. He holds a Bachelor of Arts degree in geology from the University of California, Santa Barbara and a Master of Science degree in geology from the University of California, Los Angeles. He has over 30 years of experience conducting assessment and remediation projects and has prepared or overseen the preparation of hundreds of Phase I and Phase II Environmental Site Assessments throughout California. Mr. Hamann is a Professional Geologist (#4742), Certified Engineering Geologist (#1635), and Certified Hydrogeologist (#208) with the State of California.

Sarah A. Larese is a Senior Environmental Scientist with Rincon Consultants. She holds a Bachelor of Science degree in environmental studies from the University of California, Santa Barbara, California. Ms. Larese has experience in development, implementation and project management of environmental assessment and remediation projects, especially relating to underground storage tanks. Ms. Larese's responsibilities at Rincon include implementation of Phase I and II Environmental Site Assessments as well as conducting site remediation field activities and preparation of environmental reports. She has 19 years of experience conducting research, assessment and remediation projects.

Michelle Carter is an Associate Environmental Scientist with Rincon Consultants. She holds a Bachelor of Science degree in Earth Science with an emphasis in Geology from the University of California, Santa Barbara. Ms. Carter's responsibilities at Rincon include implementation of Phase I Environmental Site Assessment reports for a variety of commercial, rural, and industrial properties. She also has experience with Phase II Environmental Site Assessments, which involve soil, groundwater, and soil vapor assessments.

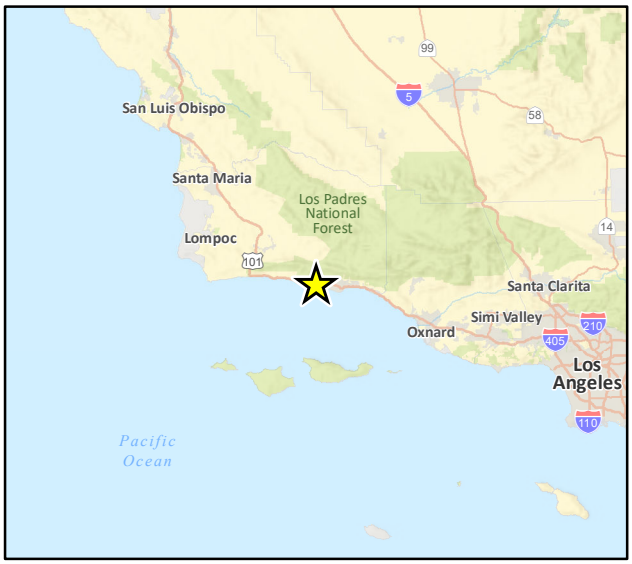
Figures



Imagery provided by National Geographic Society, Esri and its licensors © 2019. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

0 1,000 2,000
Scale in Feet

N



Vicinity Map

Figure 1



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Site Map

Figure 2



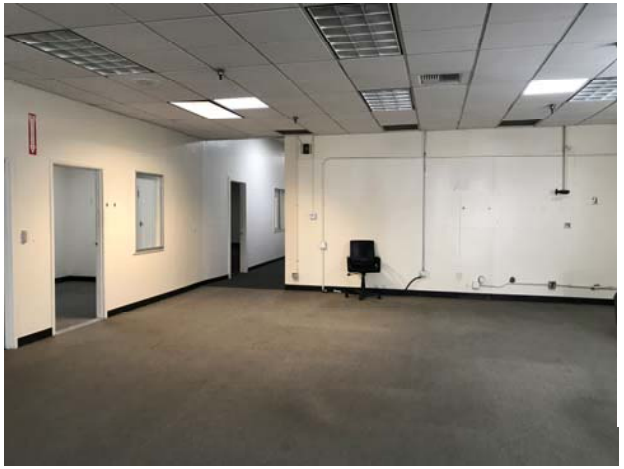
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Adjacent Land Use Map

Figure 3



Photograph 1. View of the building on the subject property, facing northwest.



Photograph 2. View of the interior vacant office space on the subject property.



Photograph 3. View of the interior vacant warehouse space on the subject property.



Photograph 4. View of the interior Food Bank storage room and hydraulic forklift.



Photograph 5. View of a 55-gallon drum (hazardous waste sticker labeled as containing rainwater) located on the western portion of the subject property.



Photograph 6. View of the location of an 1,800-gallon UST in the western portion of the subject property.



Photograph 7. View of the northern adjacent railroad tracks, facing northwest.



Photograph 8. View of the northwestern adjacent 3,000-gallon waste oil AST, facing west.



Photograph 9. View of the northeastern adjacent Goleta Amtrak Station roundabout, facing north.



Photograph 10. View of the eastern adjacent multi-business commercial building (30 S. La Patera Lane), facing southeast.



Photograph 11. View of the southern adjacent commercial office building and pole-mounted transformers (33 S. La Patera Lane), facing southwest.



Photograph 12. View of the western adjacent commercial building (6338 Lindmar Drive), facing north.

Appendix A

Interview Documentation

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

User Questionnaire

Rincon Project Number: 19-07186

Site Name and Full Address: Goleta Train Depot Project, S La Patera Lane, Goleta, California

To qualify for one of the Landowner Liability Protections (LLPs) offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "Brownfields Amendments"), the user must provide the following information to the environmental professional. Failure to conduct these inquiries could result in a determination that "all appropriate inquiries" is not complete.

We respectfully request that you fill out this form and email it to Michelle Carter at mcarter@Rinconconsultants.com within one week from the date of this transmittal.

Project Description

1. **Why is the Phase I ESA required or being performed?**

   The City of Goleta is conducting environmental review and developing a design for a new train depot that will be open to the public and needs to do this as part of its due diligence.

2. **What type of property transaction is planned? (i.e. sale, purchase, exchange)**

   No sale, purchase or exchange of the property is planned. The property is owned by the City of Goleta. Proposed redevelopment project.

3. **What is the entire site address?**

   27 South La Patera Lane, Goleta, CA 93117

4. **What is the Assessor's Parcel Number(s)?**

   073-050-033

5. **Are any considerations beyond the requirements of Practice E1527 to be considered? (i.e. lien search, asbestos & lead based paint, radon)**

   The Phase 1 ESA should include an investigation of suspected asbestos, lead based paint and radon.

Rincon Project Number: 19-07186

Site Name and Full Address: Goleta Train Depot Project, S La Patera Lane, Goleta, California

6. **Identify all parties who will rely on the Phase I report.**

The City of Goleta, Santa Barbara County Association of Governments, Union Pacific Railroad Company (UPRR), Amtrak, and other interested governmental agencies and stakeholders.

7. **Identify the Site Manager/Contact and how the contact can be reached.**

Vyto Adomaitis, Neighborhood Services & Public Safety Director, City of Goleta
(805) 961-7555 or vadomaitis@cityofgoleta.org

8. **Identify the Site Owner and how the owner can be reached.**

City of Goleta, a California municipal corporation
Michelle Greene, City Manager, mgreene@cityofgoleta.org

9. **Do you have copies of any available prior environmental site assessment reports, documents, correspondence, etc., concerning any other knowledge or experience with the property that may be pertinent to the environmental professional (i.e. title report, previous Ph I and II ESAs, Environmental Impact Studies)?**

No prior environmental assessment are available.

Rincon Project Number: 19-07186

Site Name and Full Address: Goleta Train Depot Project, S La Patera Lane, Goleta, California

Subject Property Information

1. **Did a search of recorded land title records (or judicial records, where appropriate) identify any environmental liens filed or recorded against the property?**

Please mark the box with the most appropriate response:

- [■] I **have not** reviewed the records and **do not know** if there are any filed or recorded environmental liens.
- [ ] I **have** reviewed the records, and **No, there aren't any** filed or recorded environmental liens.
- [ ] I **have** reviewed the records, and **Yes, there are** environmental liens. Explain:

2. **Did a search of recorded land title records (or judicial records, where appropriate) identify any activity and land use limitations (AULs), such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state or local law?**

Please mark the box with the most appropriate response:

- [■] I **have not** reviewed the records and **do not know** if there are any filed/recorded AULs or any AULs in place at the site.
- [ ] I **have** reviewed the records, and **No, there aren't any** filed/recorded AULs or any AULs in place at the site.
- [ ] I **have** reviewed the records, and **Yes, there are** AULs filed, recorded, and/or in place at the site. Explain:

3. **Does the Title Report provide any information pertaining to environmental cleanup liens or activity and use limitations (AULs) for the subject property?**

Please mark the box with the most appropriate response:

- [■] I **have not** reviewed the Title Report and **do not know** if it provides environmental cleanup liens or AULs information.
- [ ] I **have** reviewed the Title Report, and **No, it does not provide** environmental cleanup liens or AULs information..
- [ ] I **have** reviewed the Title Report, and **Yes, it does provide** environmental cleanup liens or AULs information. Explain:

Rincon Project Number: 19-07186

Site Name and Full Address: Goleta Train Depot Project, S La Patera Lane, Goleta, California

4. **Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?**

Please mark the box with the most appropriate response:

- [■] **No,** I **do not** have any specialized knowledge and/or experience related to the property or nearby properties.
- [ ] Yes, I **do** have specialized knowledge and/or experience related to the property or nearby properties. Explain:

5. **As the user of this ESA, based on your knowledge and experience related to the property, are you aware of any information pertaining to a reduction in value for the subject property relative to any known environmental issues?**

Please mark the box with the most appropriate response:

- [■] **No,** I **do not** have any information about a reduction in property value relative to environmental issues.
- [ ] **Yes**, I **do** have information about a reduction in property value relative to environmental issues. Explain:

6. **Does the purchase price being paid for this property reasonably reflect the fair market value of the property?**

Please mark the box with the most appropriate response:

- [■] **Yes**, I **do** believe the purchase price being paid for this property reasonably reflects the fair market value of the property. Skip to question #7.
- [ ] **No**, I **do not** believe the purchase price being paid for this property reasonably reflects the fair market value of the property. Proceed to question #6a.

   a. **If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property? (40 CFR 312.29)**

      Please mark the box with the most appropriate response

      - [ ] **No**, I **have not** considered the idea that known or believed contamination at the site has caused the lower purchase price.
      - [ ] **Yes**, I **have** considered the idea that known or believed contamination at the site has caused the lower purchase price. Explain:

Rincon Project Number: 19-07186

Site Name and Full Address: Goleta Train Depot Project, S La Patera Lane, Goleta, California

7. Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example:

Please mark the box with the most appropriate response:

a. Do you know the past uses of the property?

- ☐ I **do not** know.
- ■ I **do** know. Explain:

Built as an industrial warehouse building with ancillary office space in 1967.

b. Do you know of specific chemicals are present or once were present at the property?

- ■ I **do not** know.
- ☐ I **do** know. Explain:

c. Do you know of any spills or other chemical releases that have taken place at the property?

- ■ I **do not** know.
- ☐ I **do** know. Explain:

d. Do you know of any environmental cleanups have taken place at the property?

- ■ I **do not** know.
- ☐ I **do** know. Explain:

8. Based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of releases at the property?

Please mark the box with the most appropriate response:

- ■ **No**, I do not know and/or do not have any experience with any obvious indicators that point to the presence or likely presence of contamination at the property.
- ☐ **Yes**, I do know of and/or do have experience with obvious indicators that point to the presence or likely presence of contamination at the property. Explain:

Rincon Project Number: 19-07186

Site Name and Full Address: Goleta Train Depot Project, S La Patera Lane, Goleta, California

9. Are you aware of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products, in, on, or from the site?

Please mark the box with the most appropriate response:

- [■] **No**, I am not aware of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products, in, on, or from the site.
- [ ] **Yes**, I am aware of pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the site. Explain:

10. Are you aware of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the site?

Please mark the box with the most appropriate response:

- [■] **No**, I am not aware of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the site.
- [ ] **Yes**, I am aware of pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the site. Explain:

11. Are you aware of any notice from any government entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?

Please mark the box with the most appropriate response:

- [■] **No**, I am not aware of any notice from any government entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products..
- [ ] **Yes**, I am aware of a notice, or notices, from a government entity (or multiple government entities) regarding a possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products. Explain:

Rincon Project Number: 19-07186

Site Name and Full Address: Goleta Train Depot Project, S La Patera Lane, Goleta, California

This questionnaire was completed by (please print)

Name	Claudia Dato
Title	Senior Project Manager
Firm	City of Goleta
Street Address	130 Cremona Drive, Ste. B
City, State, Zip Code	Goleta, CA 93117
Phone Number	(805) 961-7558
Fax Number	(805) 961-8084

What is the Preparer's relationship to the property (i.e., owner, occupant, property manager, employee, agent, consultant, etc.)? Employee of owner

Copies of the completed questionnaire should be faxed, emailed (preferably) or mailed to:

Rincon Consultants, Inc.
Attention: Environmental Site Assessment Division
180 N Ashwood Avenue
Ventura, CA 93003
Fax: (805) 644-4455
Email: mcarter@rinconconsultants.com

Preparer represents that to the best of the preparer's knowledge the above statements and facts are true and correct and to the best of the preparer's knowledge no material facts have been suppressed or misstated.

Signature Claudia Dato Digitally signed by Claudia Dato Date: 2019.10.29 16:51:54 -07'00' Date October 29, 2019

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

Property Owner Interview Questionnaire

Rincon Project Number: 19-07186

Site Name and Full Address: Goleta Train Depot Project, S La Patera Lane, Goleta, California

This questionnaire should be completed by the current property owner or a designated representative of the current property owner. We respectfully request that you fill out and return this form via fax at (805) 644-4455 or email to us at mcarter@rinconconsultants.com within one week from the date of this transmittal.

---

1. Was the subject property or any adjoining property ever used as:

- ☐ an airport
- ☐ a fire training area
- ☐ a gasoline or other fueling station
- ☐ a motor vehicle repair facility
- ☐ a commercial printing facility
- ☐ a dry cleaners
- ☐ a photo developing laboratory
- ☐ a metal plating facility
- ☐ a farm
- ☐ a Department of Defense facility or training area
- ☐ a junkyard or landfill
- ☐ a waste treatment, storage, disposal, processing or recycling facility
- ☐ a machine shop
- ☐ a manufacturing facility
- ☐ an oil production facility (including oil wells)
- ☒ any other industrial use

Please check all that apply above and describe:

The building was constructed in 1967 as an industrial warehouse facility.

2. Please describe the current land uses of the subject property and those surrounding your property. Please indicate all businesses/companies located on property.

2a. Current Use of Subject Property:

Please check all that apply:	Please include a brief description of current operation:
☐ Commercial (retail, offices, etc.) ☐ Residential (single family or apartments) ☒ Industrial (manufacturing, warehousing, processing) ☐ Other- Please Describe	The site is mostly vacant but there is some warehousing use. Site contains an emergency generator and an underground fuel storage tank.

2b. Current Use of Northern Adjoining Properties:

Please check all that apply:	Please include a brief description of current operation:
☐ Commercial (retail, offices, etc.) ☐ Residential (single family or apartments) ☐ Industrial (manufacturing, warehousing, processing) ☒ Other- Please Describe	Public train platform and railway tracks.

Rincon Project Number: 19-07186

Site Name and Full Address: Goleta Train Depot Project, S La Patera Lane, Goleta, California

2c. Current Use of Eastern Adjoining Properties:

Please check all that apply:	Please include a brief description of current operation:
☐ Commercial (retail, offices, etc.) ☐ Residential (single family or apartments) ☒ Industrial (manufacturing, warehousing, processing) ☐ Other- Please Describe	Food packing plant and warehouse; parking lot and lumber company.

2d. Current Use of Southern Adjoining Properties:

Please check all that apply:	Please include a brief description of current operation:
☐ Commercial (retail, offices, etc.) ☐ Residential (single family or apartments) ☒ Industrial (manufacturing, warehousing, processing) ☐ Other- Please Describe	Light manufacturing, storage and offices. (Kollmorgen electronic parts supplier)

2e. Current Use of Western Adjoining Properties:

Please check all that apply:	Please include a brief description of current operation:
☐ Commercial (retail, offices, etc.) ☐ Residential (single family or apartments) ☒ Industrial (manufacturing, warehousing, processing) ☐ Other- Please Describe	Light manufacturing and offices (Astro Aerospace Manufacturing)

3. Please describe the previous land uses of your property and those surrounding your property. Include property ownership and dates of operation if known.

3a. Previous Use of Subject Property:

Please check all that apply:	Please include a brief description of current operation:
☐ Commercial (retail, offices, etc.) ☐ Residential (single family or apartments) ☒ Industrial (manufacturing, warehousing, processing) ☐ Other- Please Describe	Building was previously used as combined warehouse and office space for Direct Relief International. No hazardous materials stored on-site.

3b. Previous Use of Northern Adjoining Properties:

Please check all that apply:	Please include a brief description of current operation:
☐ Commercial (retail, offices, etc.) ☐ Residential (single family or apartments) ☐ Industrial (manufacturing, warehousing, processing) ☒ Other- Please Describe	Railway corridor.

Rincon Project Number: 19-07186

Site Name and Full Address: Goleta Train Depot Project, S La Patera Lane, Goleta, California

3c. Previous Use of Eastern Adjoining Properties:

Please check all that apply:	Please include a brief description of current operation:
☐ Commercial (retail, offices, etc.) ☐ Residential (single family or apartments) ■ Industrial (manufacturing, warehousing, processing) ☐ Other- Please Describe	Food packing plant and warehouse; parking lot and lumber company.

3d. Previous Use of Southern Adjoining Properties:

Please check all that apply:	Please include a brief description of current operation:
☐ Commercial (retail, offices, etc.) ☐ Residential (single family or apartments) ■ Industrial (manufacturing, warehousing, processing) ☐ Other- Please Describe	Light manufacturing, storage and offices.

3e. Previous Use of Western Adjoining Properties:

Please check all that apply:	Please include a brief description of current operation:
☐ Commercial (retail, offices, etc.) ☐ Residential (single family or apartments) ■ Industrial (manufacturing, warehousing, processing) ☐ Other- Please Describe	Light manufacturing, storage and offices.

4. Who is the current owner of the property?

City of Goleta

5. When did current ownership begin?

2018

6. What is the age of the on-site facility?

Approximately 52 years old.

7. Who is the previous owner of the property?

Direct Relief International

8. Please indicate the property's current:

Electrical service provider	Southern California Edison
Natural Gas service provider	SoCal Gas Company
Water service provider	Goleta Water District
Sewer service provider	Goleta Sanitary District
Solid waste hauler	Marborg Industries (no regular service currently)

Rincon Project Number: 19-07186

Site Name and Full Address: Goleta Train Depot Project, S La Patera Lane, Goleta, California

9. To the best of your knowledge, has your facility previously or does your facility currently store or use any of the following in individual containers larger than 5 gallons in volume or 50 gallons in the aggregate? (if Yes or Unknown, include how many, type, and size)

☐ Damaged or discarded automotive or industrial batteries	
☐ Paints	
☐ Oils or solvents	
☐ Motor vehicle fleet	
☐ Pesticides or herbicides	
☒ Other chemicals or hazardous substances	Underground diesel storage tank for generator (1800 gallon capacity)

10. Please indicate any wastes generated at the facility:

Hazardous Waste	Quantity	Disposal Method
NA		

11. Are there currently or to the best of your knowledge have there been previously, any industrial drums (typically 55 gallon) or sacks of chemicals located on the property or at the facility?

☐ Yes ☒ No ☐ Unknown	If Yes or Unknown, please describe:

12. Are there currently or to the best of your knowledge have there been previously, any evidence of fill dirt having been brought onto the property that originated from a contaminated site or that is of an unknown origin?

☐ Yes ☒ No ☐ Unknown	If Yes or Unknown, please describe:

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13. Are there currently or to the best of your knowledge have there been previously, any pits, ponds or lagoons located on the property in connection with waste treatment or waste disposal?

☐ Yes ☒ No ☐ Unknown	If Yes or Unknown, please describe:

14. Are there currently or to the best of your knowledge have there been previously, any sumps, clarifiers, or solvent degreasers on the property?

☐ Yes ☒ No ☐ Unknown	If Yes or Unknown, please describe:

15. Are there currently or to the best of your knowledge have there been previously, any stained soil on the property?

☐ Yes ☒ No ☐ Unknown	If Yes or Unknown, please describe:

16. Are there currently or to the best of your knowledge have there been previously, any storage tanks (above or below ground) located on the property?

☒ Yes ☐ No ☐ Unknown	If Yes or Unknown, please describe: Underground 1800 gallon diesel fuel storage tank for generator - currently 450 gallons of fuel stored.

17. Are there currently or to the best of your knowledge have there been previously, any vent pipes, fill pipes, or access ways (etc.) indicating a fill pipe protruding from the ground on the property or adjacent to any structure located on the property?

☐ Yes ☒ No ☐ Unknown	If Yes or Unknown, please describe:

18. If the property is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system or has the well been designated as contaminated by any government agency?

☐ Yes ☒ No ☐ Unknown	If Yes or Unknown, please describe:

Rincon Project Number: 19-07186

Site Name and Full Address: Goleta Train Depot Project, S La Patera Lane, Goleta, California

19. Are there currently or to the best of your knowledge have there been previously, any flooring, drains, or walls located within the facility that are stained by substances other than water, or are emitting foul odors?

☐ Yes ☒ No ☐ Unknown	If Yes or Unknown, please describe:

20. To the best of your knowledge has your facility previously or does your facility currently, discharge wastewater on or adjacent to the property other than storm water into a sanitary sewer system?

☐ Yes ☒ No ☐ Unknown	If Yes or Unknown, please describe:

21. Have any of the following ever been dumped above grade, buried and/or burned on the property? (please check all that apply and describe if possible)

☐ Hazardous substances	
☒ Petroleum products	Underground diesel fuel storage tank noted above.
☐ Unidentified waste materials	
☐ Tires	
☐ Automotive or industrial batteries	
☐ Other waste materials (please describe)	

22. Are there currently or to the best of your knowledge have there been previously, a transformer, capacitor or any hydraulic equipment on the property?

☒ Yes ☐ No ☐ Unknown	If Yes or Unknown, please describe: Forklifts for warehouse use.

23. Are there currently or to the best of your knowledge have there been previously any records indicating the presence of PCBs?

☐ Yes ☒ No ☐ Unknown	If Yes or Unknown, please describe:

Rincon Project Number: 19-07186

Site Name and Full Address: Goleta Train Depot Project, S La Patera Lane, Goleta, California

24. Are there currently or to the best of your knowledge have there been previously any records indicating the presence of pesticides or herbicides?

☐ Yes ☒ No ☐ Unknown	If Yes or Unknown, please describe:

25. Do you have any knowledge of environmental liens that may have been recorded against the property or governmental notification relating to past or recurrent violations of environmental laws with respect to the property or any facility located on the property?

☐ Yes ☒ No ☐ Unknown	If Yes or Unknown, please describe:

26. Do you have any knowledge of activity and use limitations (AULs) such as engineering controls, deed restrictions, land use restrictions, or institutional controls that may have been recorded against the property?

☐ Yes ☒ No ☐ Unknown	If Yes or Unknown, please describe:

27. Have you been informed of the past or current existence of hazardous substances, petroleum products, or environmental violations with respect to the property or any facility located on the property?

☒ Yes ☐ No ☐ Unknown	If Yes or Unknown, please describe: 1800 gallon underground diesel fuel storage tank.

28. Do you have any knowledge of any environmental site assessments of the property or facility?

☐ Yes ☒ No ☐ Unknown	If Yes or Unknown, please describe:

29. Do you know of any past, threatened, or pending lawsuits or administrative proceedings concerning a release of any hazardous substances or petroleum products involving the property by any owner or occupant of the property?

☐ Yes ☒ No ☐ Unknown	If Yes or Unknown, please describe:

Rincon Project Number: 19-07186

Site Name and Full Address: Goleta Train Depot Project, S La Patera Lane, Goleta, California

30. Are there any site-specific geotechnical or geologic reports available for the subject property?

☐ Yes ☒ No ☐ Unknown	If Yes or Unknown, please describe:

31. Is there a Title Report available for the subject property?

☐ Yes ☒ No ☐ Unknown	If Yes or Unknown, please describe:

This questionnaire was completed by (please print)

Name	Michael Baris and Claudia Dato
Title	Emergency Services Coordinator; Senior Project Manager
Firm	City of Goleta
Street Address	130 Cremona Drive, Ste. B
City, State, Zip Code	Goleta, CA 93117
Phone Number	(805) 690-5119
Fax Number	(805) 961-8084

What is the Preparer's relationship to the property (i.e., owner, occupant, property manager, employee, agent, consultant, etc.)? Employees

Copies of the completed questionnaire should be faxed, emailed (preferably) or mailed to:

Rincon Consultants, Inc.
Attention: Environmental Site Assessment Division
180 N Ashwood Avenue
Ventura, CA 93003
Fax: (805) 644-4455
Email: mcarter@rinconconsultants.com

Preparer represents that to the best of the preparer's knowledge the above statements and facts are true and correct and to the best of the preparer's knowledge no material facts have been suppressed or misstated.

Signature Claudia Dato Digitally signed by Claudia Dato Date: 2019.10.30 09:40:14 -07'00' Date October 30, 2019

Appendix E

Sound Level Measurement Data

- Freq Weight : A
- Time Weight : FAST
- Level Range : 40-100
- Max dB : 87.5 - 2020/07/10 09:20:42
- Level Range : 40-100
- SEL : 96.3
- Leq : 64.8
-

No.s	Date Time	(dB)				
1	2020/07/10 08:58:45	58.0	60.7	60.4	60.1	61.4
6	2020/07/10 08:58:50	66.3	64.0	60.0	64.7	64.7
11	2020/07/10 08:58:55	63.0	62.5	56.2	56.5	55.9
16	2020/07/10 08:59:00	56.3	57.8	55.4	55.2	56.8
21	2020/07/10 08:59:05	55.2	69.4	56.4	68.2	56.3
26	2020/07/10 08:59:10	55.7	56.2	55.5	56.0	56.1
31	2020/07/10 08:59:15	56.7	58.6	58.5	57.9	58.1
36	2020/07/10 08:59:20	58.3	59.2	60.5	59.9	59.2
41	2020/07/10 08:59:25	58.9	56.7	57.1	56.4	56.1
46	2020/07/10 08:59:30	58.3	56.1	56.7	57.2	57.1
51	2020/07/10 08:59:35	57.3	57.8	57.6	57.7	57.0
56	2020/07/10 08:59:40	56.3	56.9	57.6	57.4	58.9
61	2020/07/10 08:59:45	59.1	60.8	60.5	60.0	60.9
66	2020/07/10 08:59:50	60.2	59.5	59.1	58.7	57.4
71	2020/07/10 08:59:55	56.9	56.5	56.4	55.7	56.0
76	2020/07/10 09:00:00	57.1	57.1	58.2	57.4	58.0
81	2020/07/10 09:00:05	58.6	59.0	59.3	59.5	59.1
86	2020/07/10 09:00:10	59.7	60.0	60.3	60.4	59.7
91	2020/07/10 09:00:15	59.8	60.6	60.0	59.8	59.8
96	2020/07/10 09:00:20	60.1	59.6	59.1	59.3	59.7
101	2020/07/10 09:00:25	59.1	60.7	60.6	58.7	57.9
106	2020/07/10 09:00:30	59.7	59.4	64.4	57.7	61.2
111	2020/07/10 09:00:35	57.5	57.2	56.1	55.9	55.7
116	2020/07/10 09:00:40	56.8	56.8	62.5	62.5	58.0
121	2020/07/10 09:00:45	58.6	57.8	58.3	57.5	58.5
126	2020/07/10 09:00:50	59.3	60.5	57.5	60.7	60.0
131	2020/07/10 09:00:55	57.5	57.6	57.8	56.5	61.0
136	2020/07/10 09:01:00	55.4	54.7	55.8	55.6	53.9
141	2020/07/10 09:01:05	54.4	58.5	56.3	55.9	54.9
146	2020/07/10 09:01:10	55.2	54.9	56.6	55.7	54.9
151	2020/07/10 09:01:15	55.0	55.8	55.2	55.7	56.9
156	2020/07/10 09:01:20	56.0	57.1	58.2	59.2	58.8
161	2020/07/10 09:01:25	58.8	58.8	58.5	60.6	57.8
166	2020/07/10 09:01:30	57.9	60.0	61.1	58.6	59.7
171	2020/07/10 09:01:35	60.7	60.8	61.6	61.2	61.3
176	2020/07/10 09:01:40	61.2	59.3	61.8	60.5	61.5
181	2020/07/10 09:01:45	61.7	61.5	62.6	65.7	64.7
186	2020/07/10 09:01:50	65.7	66.2	63.7	63.8	65.4
191	2020/07/10 09:01:55	68.4	68.6	67.7	64.9	64.4
196	2020/07/10 09:02:00	65.1	65.2	64.5	63.7	64.4
201	2020/07/10 09:02:05	65.3	64.3	64.6	63.9	63.6
206	2020/07/10 09:02:10	63.7	64.1	64.0	65.2	65.8
211	2020/07/10 09:02:15	63.9	64.3	64.7	64.0	65.4
216	2020/07/10 09:02:20	64.6	64.9	64.2	64.4	65.1
221	2020/07/10 09:02:25	65.2	63.9	66.5	64.3	64.7
226	2020/07/10 09:02:30	71.1	70.9	67.1	69.7	66.7
231	2020/07/10 09:02:35	72.3	68.3	69.2	68.6	65.8
236	2020/07/10 09:02:40	66.2	65.4	73.1	67.5	85.1
241	2020/07/10 09:02:45	76.6	72.4	79.8	69.8	62.2
246	2020/07/10 09:02:50	62.7	61.2	65.3	67.1	71.0
251	2020/07/10 09:02:55	61.2	61.8	60.8	60.0	59.6
256	2020/07/10 09:03:00	61.6	61.2	63.3	64.6	62.0
261	2020/07/10 09:03:05	62.0	66.4	67.5	64.3	59.3
266	2020/07/10 09:03:10	58.5	58.3	59.0	57.3	59.3
271	2020/07/10 09:03:15	57.2	57.0	58.1	56.9	57.4
276	2020/07/10 09:03:20	57.4	57.5	57.0	57.7	58.8
281	2020/07/10 09:03:25	58.8	58.6	58.4	58.4	59.6
286	2020/07/10 09:03:30	60.3	59.4	59.0	59.0	59.1
291	2020/07/10 09:03:35	59.3	59.8	57.1	56.6	58.3
296	2020/07/10 09:03:40	58.0	58.3	57.6	59.6	58.2
301	2020/07/10 09:03:45	58.2	59.7	59.2	59.0	59.2
306	2020/07/10 09:03:50	58.6	59.6	60.2	58.1	58.9
311	2020/07/10 09:03:55	58.5	58.8	58.9	58.4	58.8
316	2020/07/10 09:04:00	58.5	57.2	59.5	58.3	56.5
321	2020/07/10 09:04:05	58.6	56.7	56.2	56.6	57.1
326	2020/07/10 09:04:10	56.4	58.5	57.1	57.3	56.6
331	2020/07/10 09:04:15	56.7	57.4	55.9	56.8	58.4
336	2020/07/10 09:04:20	56.3	55.9	55.0	58.6	56.5
341	2020/07/10 09:04:25	58.5	56.7	56.1	56.1	58.3
346	2020/07/10 09:04:30	56.6	57.3	56.4	57.7	56.6
351	2020/07/10 09:04:35	57.8	57.9	58.1	57.9	58.6
356	2020/07/10 09:04:40	58.0	58.7	59.6	63.1	59.1
361	2020/07/10 09:04:45	58.9	59.4	59.5	62.1	61.3
366	2020/07/10 09:04:50	61.1	61.7	59.9	59.3	59.5
371	2020/07/10 09:04:55	59.0	59.2	58.8	58.6	59.6
376	2020/07/10 09:05:00	58.8	58.9	60.5	59.2	58.7
381	2020/07/10 09:05:05	58.6	61.8	59.8	60.6	59.0
386	2020/07/10 09:05:10	58.0	58.1	57.3	56.7	58.3
391	2020/07/10 09:05:15	56.8	58.6	57.9	57.0	59.5
396	2020/07/10 09:05:20	57.8	57.4	59.1	59.2	59.3
401	2020/07/10 09:05:25	59.3	58.1	58.9	57.7	57.6
406	2020/07/10 09:05:30	56.7	57.1	56.9	57.5	57.3
411	2020/07/10 09:05:35	57.6	58.0	58.0	58.0	58.5
416	2020/07/10 09:05:40	58.7	59.0	60.1	58.7	58.9

421	2020/07/10	09:05:45	58.6	58.6	58.8	57.1	56.5
426	2020/07/10	09:05:50	56.7	56.4	57.4	57.7	57.5
431	2020/07/10	09:05:55	57.8	57.9	58.4	58.0	57.9
436	2020/07/10	09:06:00	58.5	57.8	57.9	57.3	56.8
441	2020/07/10	09:06:05	56.6	56.5	57.3	55.7	55.8
446	2020/07/10	09:06:10	55.2	55.0	54.5	54.3	54.3
451	2020/07/10	09:06:15	54.9	54.8	55.8	56.5	57.1
456	2020/07/10	09:06:20	57.3	57.4	58.1	58.7	58.8
461	2020/07/10	09:06:25	58.6	60.2	58.8	58.6	59.1
466	2020/07/10	09:06:30	59.3	59.4	59.3	59.6	59.9
471	2020/07/10	09:06:35	59.1	59.4	58.9	60.2	60.1
476	2020/07/10	09:06:40	58.3	57.9	60.5	59.1	59.8
481	2020/07/10	09:06:45	59.4	60.6	60.1	59.4	60.7
486	2020/07/10	09:06:50	58.8	58.5	59.1	59.2	58.1
491	2020/07/10	09:06:55	57.6	56.1	58.3	56.2	57.3
496	2020/07/10	09:07:00	58.3	57.8	58.1	58.8	60.4
501	2020/07/10	09:07:05	61.3	60.6	60.5	61.3	61.6
506	2020/07/10	09:07:10	59.5	60.5	59.7	59.6	58.9
511	2020/07/10	09:07:15	58.6	59.5	59.4	59.6	59.9
516	2020/07/10	09:07:20	59.9	59.0	60.5	60.1	59.9
521	2020/07/10	09:07:25	59.2	59.3	58.6	59.2	59.5
526	2020/07/10	09:07:30	58.6	59.3	59.3	59.7	59.5
531	2020/07/10	09:07:35	58.8	59.6	59.5	60.4	59.2
536	2020/07/10	09:07:40	59.9	58.7	58.4	57.9	58.4
541	2020/07/10	09:07:45	59.7	58.9	60.5	58.6	58.2
546	2020/07/10	09:07:50	58.6	58.4	57.0	57.2	57.5
551	2020/07/10	09:07:55	57.8	57.1	56.5	57.8	56.5
556	2020/07/10	09:08:00	56.6	57.9	57.2	57.1	57.5
561	2020/07/10	09:08:05	57.9	57.5	58.1	57.7	58.8
566	2020/07/10	09:08:10	59.6	58.1	58.0	59.1	56.7
571	2020/07/10	09:08:15	56.3	56.7	57.5	58.3	58.5
576	2020/07/10	09:08:20	59.1	60.0	59.6	59.3	59.9
581	2020/07/10	09:08:25	59.1	61.5	60.5	60.1	59.7
586	2020/07/10	09:08:30	59.4	60.5	60.1	59.0	57.8
591	2020/07/10	09:08:35	57.8	59.0	58.0	57.9	58.1
596	2020/07/10	09:08:40	57.1	56.8	56.7	55.4	55.5
601	2020/07/10	09:08:45	54.6	55.0	55.1	55.3	55.6
606	2020/07/10	09:08:50	54.7	56.0	54.9	56.2	56.1
611	2020/07/10	09:08:55	57.3	58.2	58.6	59.9	60.2
616	2020/07/10	09:09:00	60.4	59.3	61.0	57.9	58.3
621	2020/07/10	09:09:05	58.0	57.3	57.0	55.9	57.3
626	2020/07/10	09:09:10	59.2	58.3	58.3	58.9	57.3
631	2020/07/10	09:09:15	58.2	57.6	56.9	57.7	55.6
636	2020/07/10	09:09:20	57.0	56.0	56.4	57.3	58.9
641	2020/07/10	09:09:25	57.6	59.1	58.6	59.7	59.1
646	2020/07/10	09:09:30	59.8	58.2	58.6	58.4	58.2
651	2020/07/10	09:09:35	59.7	59.7	60.2	60.2	60.9
656	2020/07/10	09:09:40	60.8	59.3	58.6	58.3	57.8
661	2020/07/10	09:09:45	57.5	56.8	57.4	57.1	57.3
666	2020/07/10	09:09:50	58.0	58.8	58.2	59.3	60.1
671	2020/07/10	09:09:55	60.3	61.7	60.2	60.5	61.1
676	2020/07/10	09:10:00	59.9	58.6	58.3	57.5	58.5
681	2020/07/10	09:10:05	58.7	58.3	58.2	58.4	57.9
686	2020/07/10	09:10:10	58.3	58.4	58.0	58.4	57.7
691	2020/07/10	09:10:15	57.9	58.2	58.7	59.3	59.9
696	2020/07/10	09:10:20	60.6	61.3	62.9	62.3	62.4
701	2020/07/10	09:10:25	63.5	62.2	61.5	60.5	59.0
706	2020/07/10	09:10:30	59.3	58.7	57.4	56.8	56.2
711	2020/07/10	09:10:35	56.2	56.3	57.4	57.2	56.9
716	2020/07/10	09:10:40	57.1	57.8	58.4	58.4	58.7
721	2020/07/10	09:10:45	58.2	58.2	58.3	59.5	59.7
726	2020/07/10	09:10:50	59.0	58.9	59.2	58.6	58.4
731	2020/07/10	09:10:55	58.0	58.4	58.8	57.9	59.1
736	2020/07/10	09:11:00	58.3	58.2	59.6	59.8	58.5
741	2020/07/10	09:11:05	60.0	59.2	57.8	57.0	55.5
746	2020/07/10	09:11:10	56.5	57.6	57.0	58.7	58.6
751	2020/07/10	09:11:15	59.7	59.0	58.6	59.6	59.9
756	2020/07/10	09:11:20	59.7	58.8	59.0	57.6	57.2
761	2020/07/10	09:11:25	57.8	57.5	56.9	56.3	56.4
766	2020/07/10	09:11:30	55.7	55.9	55.6	55.5	55.2
771	2020/07/10	09:11:35	56.4	55.5	55.9	56.0	56.5
776	2020/07/10	09:11:40	57.2	56.8	56.5	56.2	55.5
781	2020/07/10	09:11:45	55.1	55.1	56.5	56.5	58.5
786	2020/07/10	09:11:50	58.0	57.6	58.4	56.9	57.9
791	2020/07/10	09:11:55	58.1	57.4	57.5	59.2	58.3
796	2020/07/10	09:12:00	58.5	57.4	56.7	57.2	56.7
801	2020/07/10	09:12:05	57.3	56.2	55.9	56.6	56.8
806	2020/07/10	09:12:10	56.4	56.8	58.4	56.9	57.3
811	2020/07/10	09:12:15	56.0	56.3	55.0	55.1	55.0
816	2020/07/10	09:12:20	53.6	54.1	53.7	54.2	54.1
821	2020/07/10	09:12:25	55.0	55.8	57.2	57.9	57.9
826	2020/07/10	09:12:30	58.8	59.1	58.2	58.9	57.7
831	2020/07/10	09:12:35	57.4	57.6	57.4	57.1	56.9
836	2020/07/10	09:12:40	56.7	57.2	56.9	58.4	57.7
841	2020/07/10	09:12:45	58.3	58.9	58.8	61.0	59.5
846	2020/07/10	09:12:50	60.9	61.8	61.5	59.4	59.7
851	2020/07/10	09:12:55	59.4	59.3	59.1	58.2	59.0
856	2020/07/10	09:13:00	58.5	59.2	59.5	58.8	59.3
861	2020/07/10	09:13:05	59.3	59.2	58.4	58.7	56.3
866	2020/07/10	09:13:10	56.8	56.6	56.9	56.7	56.8
871	2020/07/10	09:13:15	57.2	57.0	58.9	61.0	62.7
876	2020/07/10	09:13:20	61.2	59.2	59.1	59.9	59.3
881	2020/07/10	09:13:25	59.5	59.1	59.0	58.6	59.8
886	2020/07/10	09:13:30	58.4	59.2	59.1	59.4	59.1
891	2020/07/10	09:13:35	59.2	58.9	59.0	59.3	58.9
896	2020/07/10	09:13:40	58.9	58.0	57.8	57.9	57.0
901	2020/07/10	09:13:45	57.6	57.4	59.8	58.1	59.6
906	2020/07/10	09:13:50	58.4	57.9	58.1	58.4	59.6

911	2020/07/10	09:13:55	60.6	61.9	60.1	61.4	60.7
916	2020/07/10	09:14:00	60.2	60.7	60.7	60.8	61.0
921	2020/07/10	09:14:05	60.1	60.4	59.5	59.7	58.9
926	2020/07/10	09:14:10	57.9	58.4	56.9	57.0	56.0
931	2020/07/10	09:14:15	57.6	57.1	58.5	58.0	57.4
936	2020/07/10	09:14:20	56.9	56.7	57.9	55.8	55.2
941	2020/07/10	09:14:25	56.0	55.8	55.7	56.3	56.8
946	2020/07/10	09:14:30	57.8	58.4	59.9	59.7	59.5
951	2020/07/10	09:14:35	58.7	59.8	59.4	58.0	58.3
956	2020/07/10	09:14:40	66.7	59.0	58.5	58.0	57.6
961	2020/07/10	09:14:45	59.4	58.0	57.8	57.6	57.8
966	2020/07/10	09:14:50	57.8	59.3	61.4	60.7	61.6
971	2020/07/10	09:14:55	62.6	61.9	60.6	61.1	60.0
976	2020/07/10	09:15:00	60.5	61.5	61.7	61.5	61.1
981	2020/07/10	09:15:05	61.5	61.2	60.5	60.4	59.8
986	2020/07/10	09:15:10	58.9	59.1	59.6	60.5	60.1
991	2020/07/10	09:15:15	60.1	59.5	60.3	59.4	60.1
996	2020/07/10	09:15:20	59.9	60.2	60.3	61.3	60.2
1001	2020/07/10	09:15:25	59.9	63.2	59.6	59.6	59.4
1006	2020/07/10	09:15:30	58.8	59.2	58.1	58.0	58.6
1011	2020/07/10	09:15:35	59.3	58.4	58.9	59.2	58.5
1016	2020/07/10	09:15:40	57.9	57.6	58.7	58.8	59.1
1021	2020/07/10	09:15:45	59.3	59.1	59.9	60.3	59.3
1026	2020/07/10	09:15:50	59.4	58.6	58.6	59.1	58.3
1031	2020/07/10	09:15:55	57.7	57.5	57.7	58.0	57.4
1036	2020/07/10	09:16:00	58.2	58.1	58.1	58.1	58.9
1041	2020/07/10	09:16:05	59.1	59.0	61.1	60.7	60.5
1046	2020/07/10	09:16:10	60.7	60.6	61.1	59.9	59.4
1051	2020/07/10	09:16:15	58.4	57.6	56.9	57.4	57.5
1056	2020/07/10	09:16:20	57.3	57.3	58.2	58.8	59.1
1061	2020/07/10	09:16:25	59.6	59.2	58.3	56.5	56.2
1066	2020/07/10	09:16:30	56.6	56.3	55.8	55.8	55.6
1071	2020/07/10	09:16:35	56.0	54.7	57.4	53.2	52.6
1076	2020/07/10	09:16:40	52.6	53.1	53.0	53.6	53.3
1081	2020/07/10	09:16:45	53.8	55.0	55.2	56.9	56.7
1086	2020/07/10	09:16:50	57.0	57.1	57.2	57.2	57.6
1091	2020/07/10	09:16:55	56.4	57.8	58.6	56.7	57.6
1096	2020/07/10	09:17:00	57.1	58.1	57.4	57.3	57.7
1101	2020/07/10	09:17:05	57.4	58.4	58.1	57.6	58.0
1106	2020/07/10	09:17:10	60.0	58.5	59.2	58.9	58.6
1111	2020/07/10	09:17:15	57.9	58.3	56.2	56.5	56.7
1116	2020/07/10	09:17:20	56.2	57.4	58.3	58.4	59.2
1121	2020/07/10	09:17:25	58.2	58.2	57.7	57.3	57.5
1126	2020/07/10	09:17:30	57.4	58.0	58.2	58.5	58.9
1131	2020/07/10	09:17:35	58.8	57.9	57.9	57.5	57.3
1136	2020/07/10	09:17:40	56.3	56.4	55.7	54.9	55.1
1141	2020/07/10	09:17:45	56.0	55.2	55.5	55.6	56.2
1146	2020/07/10	09:17:50	56.3	57.6	56.6	57.5	56.6
1151	2020/07/10	09:17:55	56.9	57.6	56.5	56.5	56.2
1156	2020/07/10	09:18:00	56.4	56.1	57.4	57.5	58.6
1161	2020/07/10	09:18:05	57.6	63.2	58.2	65.3	63.0
1166	2020/07/10	09:18:10	70.3	65.0	71.2	66.8	72.0
1171	2020/07/10	09:18:15	67.2	75.7	69.5	77.1	72.3
1176	2020/07/10	09:18:20	78.3	71.1	62.5	66.4	73.4
1181	2020/07/10	09:18:25	67.3	66.6	63.3	60.4	58.9
1186	2020/07/10	09:18:30	58.1	58.5	58.5	61.7	59.5
1191	2020/07/10	09:18:35	58.7	58.4	59.1	57.3	58.0
1196	2020/07/10	09:18:40	58.1	61.7	58.1	58.2	58.0
1201	2020/07/10	09:18:45	57.9	58.6	61.3	67.0	63.8
1206	2020/07/10	09:18:50	61.4	57.5	57.3	57.4	57.9
1211	2020/07/10	09:18:55	58.9	59.9	61.1	60.5	59.9
1216	2020/07/10	09:19:00	61.0	60.8	57.6	63.9	61.2
1221	2020/07/10	09:19:05	60.5	61.5	62.0	60.5	59.7
1226	2020/07/10	09:19:10	59.3	58.8	59.2	66.7	58.5
1231	2020/07/10	09:19:15	57.8	57.2	56.0	62.7	60.2
1236	2020/07/10	09:19:20	59.7	54.4	65.1	56.2	60.3
1241	2020/07/10	09:19:25	61.1	66.2	63.5	59.2	62.7
1246	2020/07/10	09:19:30	61.1	61.9	66.2	59.0	61.3
1251	2020/07/10	09:19:35	61.5	67.2	66.8	60.0	57.7
1256	2020/07/10	09:19:40	60.1	60.8	65.1	57.2	56.8
1261	2020/07/10	09:19:45	59.7	58.7	69.4	60.0	57.8
1266	2020/07/10	09:19:50	58.3	63.6	58.7	59.2	64.8
1271	2020/07/10	09:19:55	61.6	59.0	58.7	57.7	58.4
1276	2020/07/10	09:20:00	57.7	57.0	61.8	60.0	57.2
1281	2020/07/10	09:20:05	56.5	58.8	60.6	60.2	56.9
1286	2020/07/10	09:20:10	58.3	60.7	57.7	57.8	58.4
1291	2020/07/10	09:20:15	59.2	58.2	58.6	59.6	60.4
1296	2020/07/10	09:20:20	59.7	60.0	58.2	77.3	76.8
1301	2020/07/10	09:20:25	72.9	75.7	76.1	78.7	75.4
1306	2020/07/10	09:20:30	78.3	70.3	77.6	71.7	79.4
1311	2020/07/10	09:20:35	73.3	80.4	75.5	77.7	72.0
1316	2020/07/10	09:20:40	80.1	74.7	84.3	74.3	85.7
1321	2020/07/10	09:20:45	60.5	61.2	60.2	60.0	60.6
1326	2020/07/10	09:20:50	61.4	59.8	59.3	59.7	61.3
1331	2020/07/10	09:20:55	60.9	60.9	59.5	60.9	60.7
1336	2020/07/10	09:21:00	63.4	61.8	64.8	63.6	64.3
1341	2020/07/10	09:21:05	66.7	67.7	68.1	69.8	70.1
1346	2020/07/10	09:21:10	70.2	68.5	69.0	66.7	67.7
1351	2020/07/10	09:21:15	67.4	69.5	70.8	72.6	75.9
1356	2020/07/10	09:21:20	79.1	81.9	81.8	80.7	77.5
1361	2020/07/10	09:21:25	74.2	72.4	69.2	66.0	62.4
1366	2020/07/10	09:21:30	60.9	63.1	59.0	62.2	59.0
1371	2020/07/10	09:21:35	60.5	57.2	58.0	57.1	57.3
1376	2020/07/10	09:21:40	55.5	56.2	58.9	55.0	54.9
1381	2020/07/10	09:21:45	57.9	54.8	55.6	56.8	57.0
1386	2020/07/10	09:21:50	55.0	52.9	52.1	52.8	54.4
1391	2020/07/10	09:21:55	56.1	60.8	55.6	55.9	62.4
1396	2020/07/10	09:22:00	59.5	56.5	56.3	57.2	56.7

1401	2020/07/10	09:22:05	56.7	63.9	56.8	57.2	57.2
1406	2020/07/10	09:22:10	56.6	57.1	59.1	61.3	56.4
1411	2020/07/10	09:22:15	56.0	56.1	56.2	56.8	57.7
1416	2020/07/10	09:22:20	56.9	56.9	57.2	57.8	58.9
1421	2020/07/10	09:22:25	57.2	58.3*	58.2*	68.4	58.7

- Freq Weight : A
- Time Weight : FAST
- Level Range : 40-100
- Max dB : 75.6 - 2020/07/10 09:35:16
- Level Range : 40-100
- SEL : 90.3
- Leq : 60.8
-

No.s	Date Time	(dB)				
1	2020/07/10 09:26:01	57.7	57.3	57.5	57.0	57.9
6	2020/07/10 09:26:16	59.1	58.3	57.8	57.4	56.5
11	2020/07/10 09:26:31	57.0	57.7	58.6	58.8	58.6
16	2020/07/10 09:26:46	60.0	60.2	59.4	59.3	59.3
21	2020/07/10 09:27:01	59.1	58.1	58.6	56.7	57.2
26	2020/07/10 09:27:16	57.2	59.0	59.6	58.7	58.6
31	2020/07/10 09:27:31	58.0	57.9	56.6	55.5	55.8
36	2020/07/10 09:27:46	57.6	57.3	55.7	57.7	59.3
41	2020/07/10 09:28:01	57.5	57.4	57.3	58.3	56.9
46	2020/07/10 09:28:16	57.4	59.4	56.6	60.8	61.6
51	2020/07/10 09:28:31	58.1	58.3	57.6	56.3	58.9
56	2020/07/10 09:28:46	55.9	56.7	56.0	58.2	59.8
61	2020/07/10 09:29:01	58.6	59.8	58.7	59.0	58.8
66	2020/07/10 09:29:16	61.4	60.6	59.5	65.7	59.7
71	2020/07/10 09:29:31	57.6	57.8	57.9	58.5	56.1
76	2020/07/10 09:29:46	56.4	57.0	57.9	58.0	57.6
81	2020/07/10 09:30:01	56.6	54.7	54.6	56.1	56.9
86	2020/07/10 09:30:16	57.2	58.1	58.8	59.2	59.9
91	2020/07/10 09:30:31	58.5	59.3	58.6	58.2	57.8
96	2020/07/10 09:30:46	57.2	56.3	55.5	54.3	56.1
101	2020/07/10 09:31:01	57.6	60.1	58.6	58.4	58.1
106	2020/07/10 09:31:16	58.6	61.0	59.9	59.8	59.9
111	2020/07/10 09:31:31	60.0	60.3	60.2	58.1	59.3
116	2020/07/10 09:31:46	59.2	59.2	57.5	56.5	56.7
121	2020/07/10 09:32:01	58.2	58.6	58.2	56.0	56.3
126	2020/07/10 09:32:16	57.6	59.6	58.6	58.3	58.6
131	2020/07/10 09:32:31	59.1	57.5	56.4	56.4	57.1
136	2020/07/10 09:32:46	58.8	57.2	57.5	56.7	62.9
141	2020/07/10 09:33:01	57.4	68.5	71.1	64.4	67.9
146	2020/07/10 09:33:16	60.6	67.9	64.6	59.1	60.8
151	2020/07/10 09:33:31	62.4	59.0	66.9	57.2	57.9
156	2020/07/10 09:33:46	59.6	60.0	60.1	60.3	60.0
161	2020/07/10 09:34:01	59.1	57.6	61.2	58.2	57.1
166	2020/07/10 09:34:16	57.0	57.0	64.9	71.2	58.3
171	2020/07/10 09:34:31	57.9	57.1	60.9	57.6	58.8
176	2020/07/10 09:34:46	59.2	61.1	58.5	58.6	58.2
181	2020/07/10 09:35:01	56.8	59.0	72.6	68.6	73.1
186	2020/07/10 09:35:16	69.8	71.4	61.3	68.9	57.5
191	2020/07/10 09:35:31	57.7	57.3	58.6	57.3	58.7
196	2020/07/10 09:35:46	59.6	60.2	55.8	58.4	57.2
201	2020/07/10 09:36:01	63.2	58.1	59.9	58.3	57.0
206	2020/07/10 09:36:16	56.9	55.6	56.5	57.3	59.2
211	2020/07/10 09:36:31	60.0	58.5	57.9	57.9	57.6
216	2020/07/10 09:36:46	61.0	63.7	59.5	62.4	61.3
221	2020/07/10 09:37:01	60.2	62.9	59.6	60.1	59.8
226	2020/07/10 09:37:16	59.5	59.5	57.5	57.2	57.3
231	2020/07/10 09:37:31	57.3	58.4	58.8	57.9	58.2
236	2020/07/10 09:37:46	58.3	62.8	60.5	59.2	58.8
241	2020/07/10 09:38:01	56.1	58.9	57.6	62.1	59.5
246	2020/07/10 09:38:16	59.0	59.3	60.4	63.7	63.7
251	2020/07/10 09:38:31	62.3	60.2	60.8	58.3	57.4
256	2020/07/10 09:38:46	64.6	60.4	59.4	65.6	58.7
261	2020/07/10 09:39:01	59.7	59.4	59.3	61.2	58.8
266	2020/07/10 09:39:16	58.6	58.5	63.7	63.2	59.7
271	2020/07/10 09:39:31	63.7	58.2	66.4	57.0	64.7
276	2020/07/10 09:39:46	57.1	57.6	56.3	56.7	63.7
281	2020/07/10 09:40:01	65.0	56.5	56.8	64.3	58.5
286	2020/07/10 09:40:16	57.1	57.2	57.8	57.6	57.3
291	2020/07/10 09:40:31	61.0	63.2	63.2	60.6	63.5
296	2020/07/10 09:40:46	59.4	58.3	58.5	58.1	57.6

Appendix F

Transportation Impact Study

LINSCOTT LAW & GREENSPAN engineers

TRAFFIC IMPACT STUDY

GOLETA TRAIN DEPOT

City of Goleta, California
September 3, 2020

Prepared for:

Rincon Consultants, Inc.
180 N. Ashwood Avenue
Ventura, CA 93003

LLG Ref. 5-20-0492-1



Prepared by:

Amrita Shankar
Transportation Engineer I

Under the Supervision of:

David S. Shender, P.E.
Principal

Linscott, Law & Greenspan, Engineers

20931 Burbank Boulevard
Suite C
Woodland Hills, CA 91367

818.835.8648 T
818.835.8649 F

www.llgengineers.com

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TRAFFIC IMPACT STUDY

GOLETA TRAIN DEPOT

City of Goleta, California
September 3, 2020

1.0 INTRODUCTION

This traffic analysis has been conducted to identify and evaluate the potential traffic impacts of the proposed train depot project (the "Project") located at 27 S. La Patera Lane in the City of Goleta, California (the "Project Site"). The Project proposes the development of an approximately 9,000 square foot train depot just south of the existing Goleta Amtrak train platform site at the northern terminus of La Patera Lane. The Project Site is generally bounded by La Patera Lane to the north, office buildings to the south, La Patera Lane to the east, and office buildings to the west. The Project Site location and general vicinity are shown in ***Figure 1–1***.

The traffic analysis follows City of Goleta (the "City) Resolution No. 20-44[1] (the "Resolution"). In compliance with the California Environmental Quality Act (CEQA), the City's Resolution identifies vehicle miles traveled (VMT) as the primary metric for evaluating a project's transportation impacts. In addition, the City's Resolution requires that a Level of Service (LOS) analysis be performed at the local level, per Policy TE-4 of the City's General Plan. This traffic analysis provides an assessment of the Project's VMT transportation impact and evaluates potential changes to operations due to Project-related traffic at seven key intersections in the vicinity of the Project Site. The Intersection Capacity Utilization (ICU) method was used to determine Volume-to-Capacity (*v*/c) ratios and corresponding LOS at the study intersections located within the City of Goleta. Additionally, the Highway Capacity Manual method was used to determine average control delays and corresponding LOS at the study intersections located within Caltrans' jurisdiction.

This study: (i) presents a VMT assessment, (ii) presents existing traffic volumes, (iii) includes existing traffic volumes with the forecast net new traffic volumes from the proposed Project, (iv) forecasts future cumulative baseline traffic volumes, (v) forecasts future traffic volumes with the proposed Project, and (vi) determines future operations at the study intersections with Project-related traffic.

[1] *Resolution No. 20-44*, City of Goleta, July 2020.



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MAP SOURCE: GOOGLE MAPS
★ PROJECT SITE
Ⓧ STUDY INTERSECTION

FIGURE 1-1
VICINITY MAP

LINSCOTT, LAW & GREENSPAN, engineers

GOLETA TRAIN DEPOT

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1.1 Study Area

The VMT assessment criteria for this traffic analysis was determined in consultation with City of Goleta staff. In addition, seven study intersections have been identified for evaluation during the weekday morning and afternoon peak hours upon coordination with City staff. The study intersections were evaluated from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM to determine the respective peak commuter hours. The seven study intersections provide local access to the study area and define the extent of the boundaries for this traffic operations analysis. Further discussion of the existing street system and study area is provided in Section 4.0.

The general location of the Project in relation to the study locations and surrounding street system is presented in *Figure 1–1*. The traffic analysis study area is generally comprised of those locations which have the greatest potential to experience traffic due to the proposed Project as defined by the Lead Agency. In the traffic engineering practice, the study area generally includes those intersections that are:

a. Immediately adjacent or in close proximity to the Project Site;

b. In the vicinity of the Project Site that are documented to have current or projected future adverse operational issues; and

c. In the vicinity of the Project Site that are forecast to experience a relatively greater percentage of Project-related vehicular turning movements (e.g., at freeway ramp intersections).

The locations selected for analysis were based on the above criteria, the peak-hour vehicle trip generation associated with the proposed Project, the anticipated distribution of Project vehicular trips, and existing intersection/corridor operations.

2.0 PROJECT DESCRIPTION

2.1 Site Location

The proposed Project Site is located at 27 S. La Patera Lane in the City of Goleta. The Project Site is bounded by La Patera Lane to the north, office buildings to the south, La Patera Lane to the east, and office buildings to the west. The Project Site location and general vicinity are shown in *Figure 1–1*.

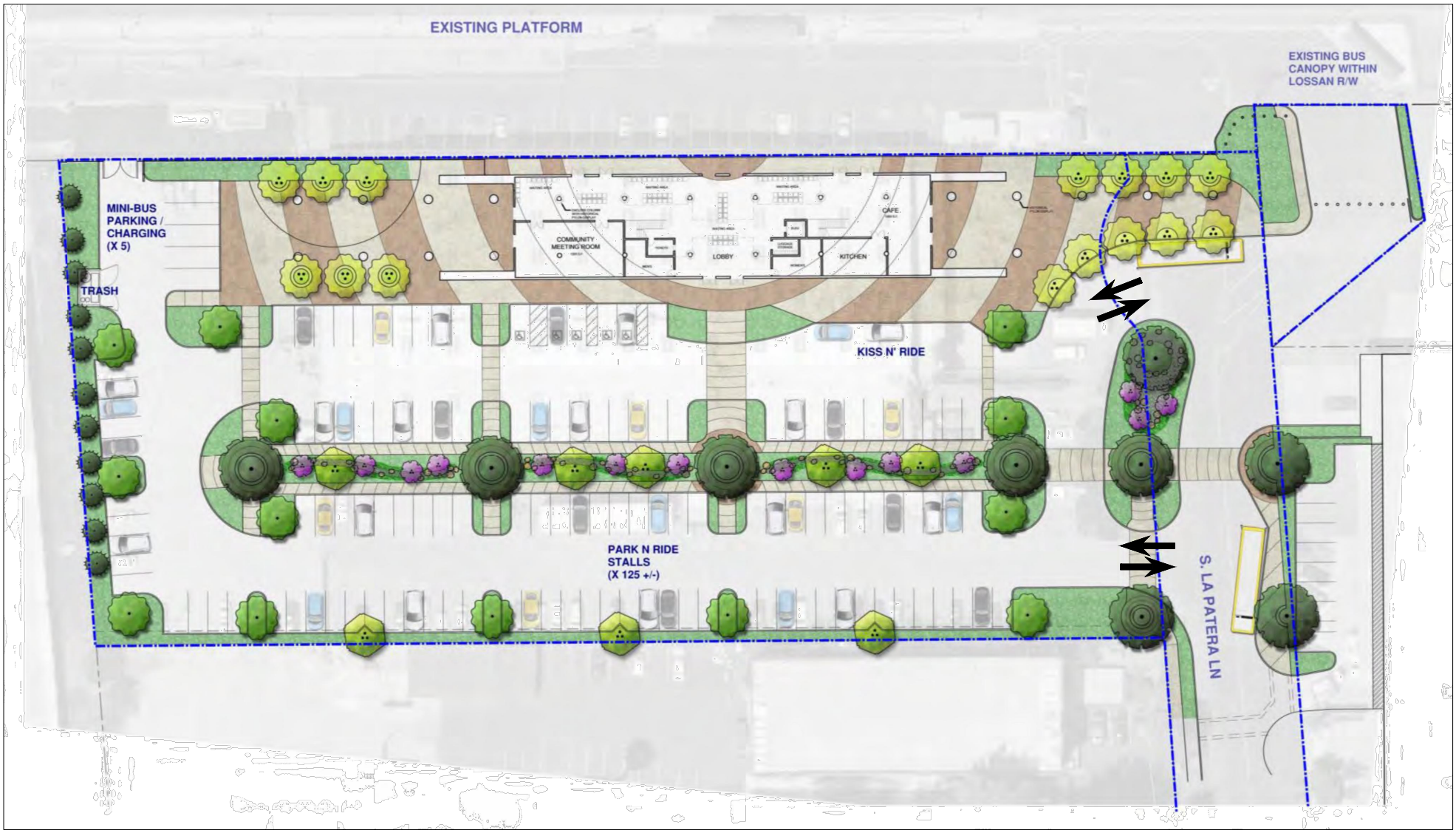
2.2 Existing Project Site

The Project Site is currently occupied by a warehouse building with approximately 30,000 square feet of floor area and an office building with approximately 10,000 square feet of floor area. Vehicular access to the existing Project Site is provided via one driveway along the west side of La Patera Lane at the southern end of the Project Site and one gated driveway along the west side of La Patera Lane at the northern end of the Project Site.

2.3 Proposed Project Description

The Project seeks to remove the existing buildings and develop a train depot with approximately 9,000 square feet of building floor area. The Project proposes to provide 125 parking spaces within an on-site surface parking lot. Construction and occupancy of the proposed Project is planned to be completed by the year 2024. The site plan for the proposed Project is illustrated in ***Figure 2–1***.

Vehicular access to the Project site will be provided via two driveways along the west side of La Patera Lane (i.e., along the Project Site's easterly frontage). Further discussion on the Project Site access and circulation schemes is provided in Section 3.0.



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MAP SOURCE: ANIL VERMA ASSOCIATES, INC.

FIGURE 2-1
PROJECT SITE PLAN

LINSCOTT, LAW & GREENSPAN, engineers

GOLETA TRAIN DEPOT

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3.0 SITE ACCESS AND CIRCULATION

The proposed site access scheme for the Project is displayed in *Figure 2–1*. A description of the proposed site access and circulation scheme is provided in the following subsections.

3.1 Existing Vehicular Site Access

Vehicular access to the existing Project Site is provided via two driveways along the west side of La Patera Lane.

3.2 Vehicular Project Site Access

Vehicular access to the Project Site will be provided via two driveways along the west side of La Patera Lane. The driveways will provide access to the Project's on-site surface parking lot. The driveways are proposed to accommodate left-turn ingress movements and right-turn egress movements.

4.0 EXISTING STREET SYSTEM

4.1 Regional Highway System

Regional access to the Project Site is provided by the SR-217 (Ward Memorial Boulevard) Freeway and US-101 Freeway. Brief descriptions of the SR-217 and US-101 Freeways are provided in the following paragraphs.

SR-217 (Ward Memorial Boulevard) Freeway is an east-west state highway connecting the US-101 Freeway to the University of California, Santa Barbara. In the Project vicinity, two mixed-flow lanes are generally provided in each direction on the SR-217 Freeway. Eastbound and westbound ramps are provided on the SR-217 Freeway at Hollister Avenue in the Project vicinity and are located approximately 1.45 miles east of the Project Site.

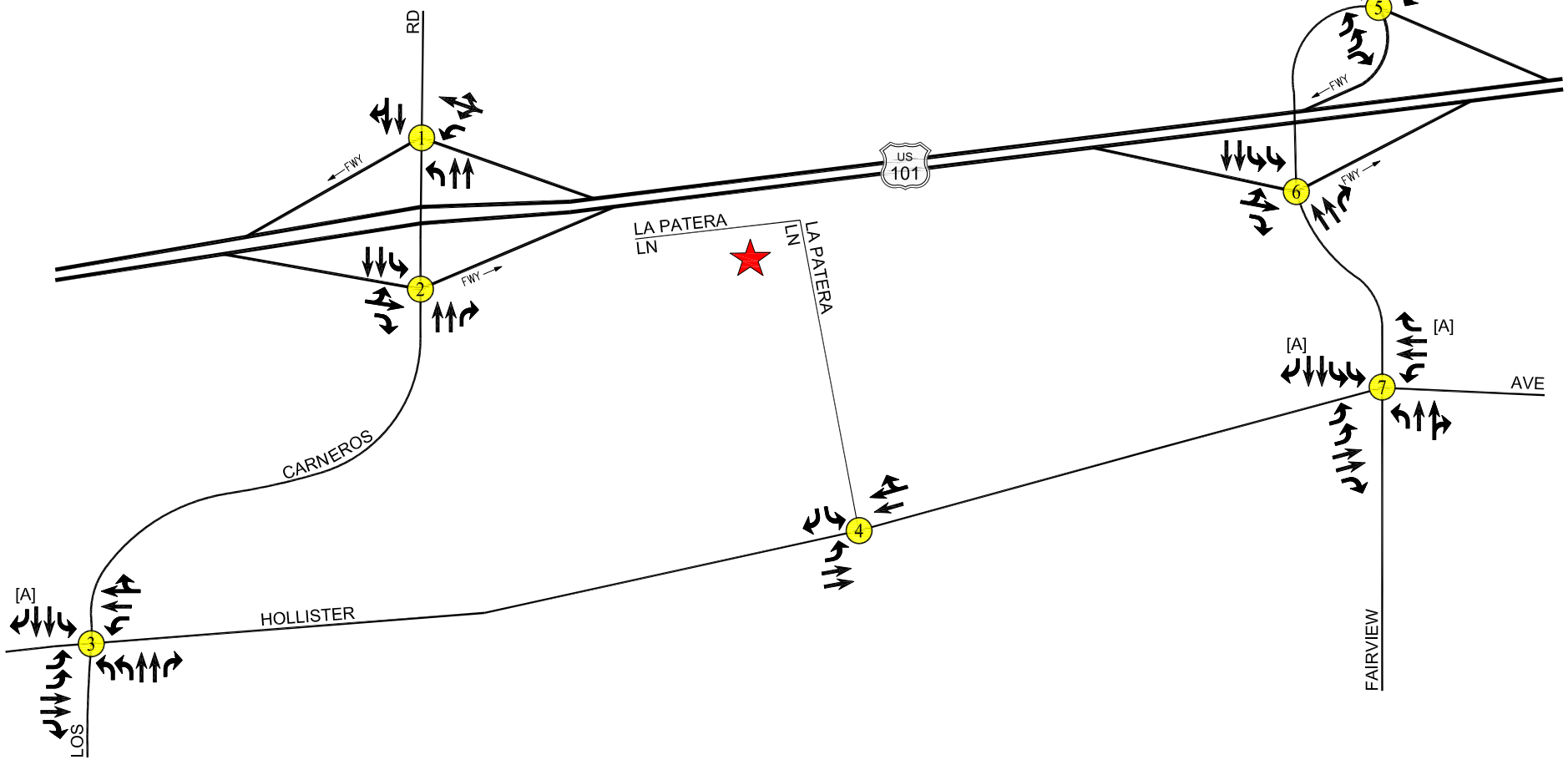
US-101 Freeway is a north-south oriented freeway that extends across Northern and Southern California. In the Project vicinity, two to three mixed-flow lanes are generally provided in each direction on the US-101 Freeway with auxiliary merge/weave lanes provided between some interchanges. Northbound and southbound ramps are provided on the US-101 Freeway at Los Carneros Road and Fairview Avenue in the Project vicinity, and are located approximately 0.55 miles west and 0.68 miles east of the Project Site, respectively.

4.2 Local Roadway System

Immediate access to the Project Site is provided via La Patera Lane. The following study intersections were selected for analysis of potential changes in operations due to the proposed Project:

1. Los Carneros Road / US-101 Northbound ramps (State of California)
2. Los Carneros Road / US-101 Southbound ramps (State of California)
3. Los Carneros Road / Hollister Avenue (City of Goleta)
4. La Patera Lane / Hollister Avenue (City of Goleta)
5. Fairview Avenue / US-101 Northbound ramps (State of California)
6. Fairview Avenue / US-101 Southbound ramps (State of California)
7. Fairview Avenue / Hollister Avenue (City of Goleta)

All seven study intersections selected for analysis are presently controlled by traffic signals. The existing lane configurations at the study intersections are displayed in ***Figure 4–1***.



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★ PROJECT SITE
Ⓧ STUDY INTERSECTION
[A] RIGHT-TURN OVERLAP

FIGURE 4-1
EXISTING LANE CONFIGURATIONS

LINSCOTT, LAW & GREENSPAN, engineers

GOLETA TRAIN DEPOT

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4.3 Roadway Descriptions

A brief description of the roadways in the Project vicinity is provided in the following paragraphs.

Los Carneros Road is a north-south oriented roadway located west of the Project Site. Within the Project study area, Los Carneros Road is designated as a Principal Arterial by the City of Goleta. Two through lanes are generally provided in each direction on Los Carneros Road. Separate exclusive left-turn lanes are provided in each direction on Los Carneros Road at the Hollister Avenue intersection, and a separate exclusive left-turn lane is provided in the northbound direction at the US-101 Northbound ramps intersection. Los Carneros Road is posted for a speed limit of 45 miles per hour within the Project study area.

La Patera Lane is a north-south oriented roadway that borders the Project Site to the east. Within the Project study area, La Patera Lane is designated as a Major Collector by the City of Goleta. One through travel lane is provided in each direction on La Patera Lane within the Project study area. A separate exclusive left-turn lane is provided in the southbound direction on La Patera Lane at the Hollister Avenue intersection. There is no speed limit posted on La Patera Lane within the Project study area, thus a prima facie speed limit of 25 miles per hour is assumed, consistent with the State of California Vehicle Code Section 22352(b)(1).

Fairview Avenue is a north-south oriented roadway located east of the Project Site. North of Hollister Avenue, Fairview Avenue is designated as Principal Arterial by the City of Goleta. South of Hollister Avenue, Fairview Avenue is designated as a Major Collector by the City of Goleta. Two through travel lanes are generally provided in each direction on Fairview Avenue within the Project study area. Separate exclusive left-turn lanes are provided in each direction on Fairview Avenue at the Hollister Avenue intersection. Separate exclusive left-turn lanes are provided in the northbound direction at the US-101 Northbound ramps intersection and in the southbound direction at the US-101 Southbound ramps intersection. Fairview Avenue is posted for a speed limit of 35 miles per hour within the Project study area.

Hollister Avenue is an east-west oriented roadway located south of the Project Site. Within the Project study area, Hollister Avenue is designated as a Principal Arterial by the City of Goleta. Two through travel lanes are generally provided in each direction on Hollister Avenue within the Project study area. Separate exclusive left-turn lanes are provided in each direction on Hollister Avenue at the Los Carneros Road intersection and at the Fairview Avenue intersection. A separate exclusive left-turn lane is provided in the eastbound direction at the La Patera Lane intersection. West of Fairview Avenue, Hollister Avenue is posted for a speed limit of 45 miles per hour within the Project study area. East of Fairview Avenue, Hollister Avenue is posted for a speed limit of 25 miles per hour within the Project study area.

4.4 Public Transit Services

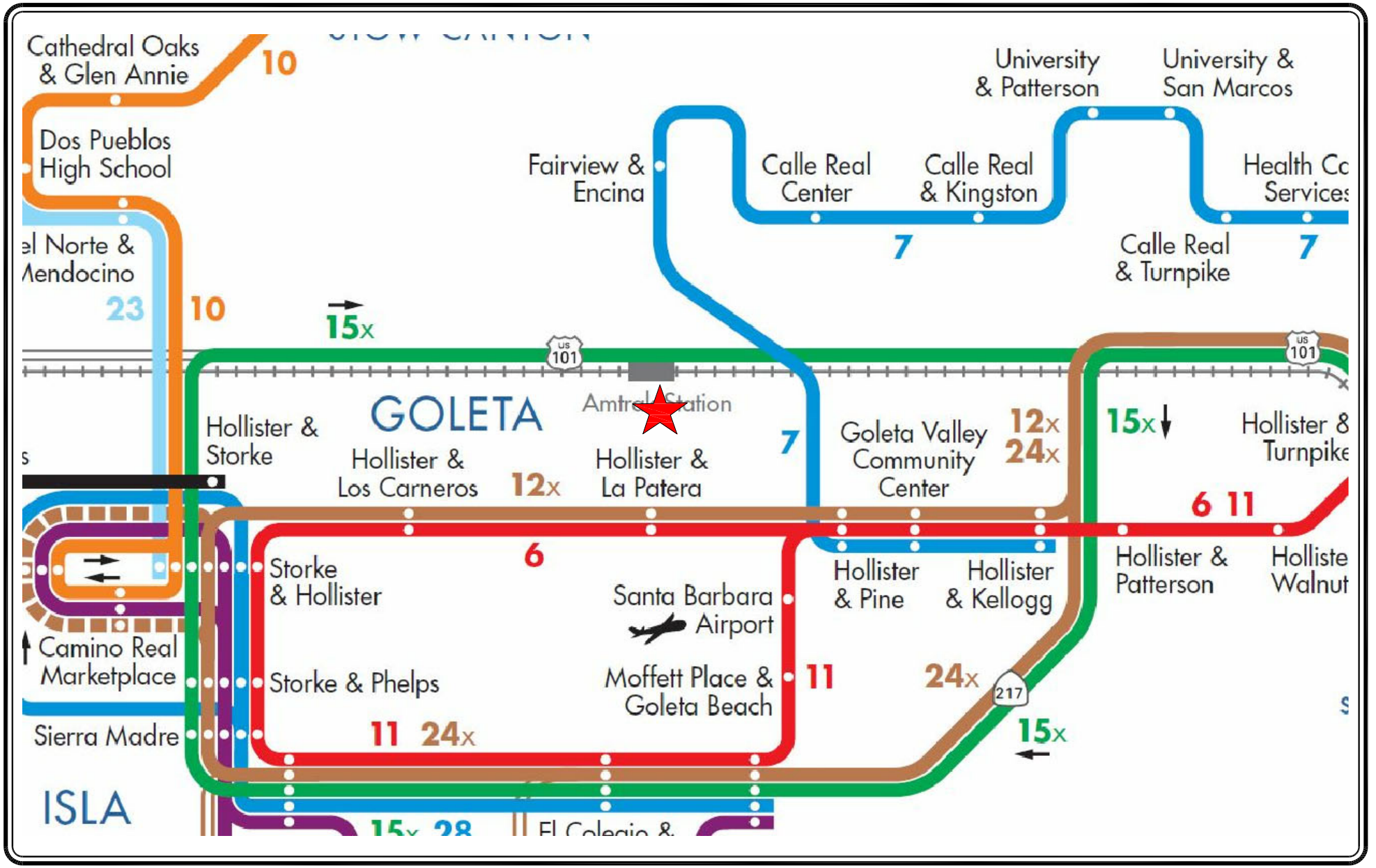
Public transit service within the Project study area is currently provided by the Santa Barbara Metropolitan Transit District (Santa Barbara MTD) and the Ventura County Transportation Commission (VCTC). A summary of the existing transit service, including the transit route, destinations and peak hour headways is presented in ***Table 4–1***. The existing public transit routes in the Project site vicinity are illustrated in ***Figure 4–2***.

Table 4-1
EXISTING PUBLIC TRANSIT ROUTES [1]

31-Aug-20

ROUTE	DESTINATIONS	ROADWAY(S) NEAR SITE	NO. OF BUSES/TRAINS DURING PEAK HOUR		
			DIR	AM	PM
Santa Barbara MTD 6	Downtown Santa Barbara to Goleta (via State Street, Hollister Avenue and Storke Road)	Hollister Avenue	EB WB	3 3	3 3
Santa Barbara MTD 7	Downtown Santa Barbara to Goleta (via Calle Real, Fairview Avenue and Hollister Avenue)	Fairview Avenue, Hollister Avenue	EB WB	2 2	2 2
Santa Barbara MTD 12X	Downtown Santa Barbara to Goleta (via US-101 Freeway, Ward Memorial Boulevard and Hollister Avenue)	Hollister Avenue	EB WB	2 2	2 2
VCTC Coastal Express 85	Camarillo to Goleta (via US-101 Freeway, Ward Memorial Boulevard and Hollister Avenue)	Hollister Avenue	NB SB	0 0	0 1
VCTC Coastal Express 85C	Camarillo to Goleta (via US-101 Freeway, Ward Memorial Boulevard and Hollister Avenue)	Hollister Avenue	NB SB	1 0	0 0
VCTC Coastal Express 86	Camarillo to Goleta (via US-101 Freeway, Ward Memorial Boulevard and Hollister Avenue)	Hollister Avenue	NB SB	1 0	0 1
VCTC Coastal Express 88	Ventura to University of California, Santa Barbara (via US-101 Freeway, Hollister Avenue, Los Carneros Road, and Ocean Road)	Los Carneros Road, Hollister Avenue	NB SB	1 0	0 0
			Total	**17**	**16**

[1] Sources: Santa Barbara Metropolitan Transit District (Santa Barbara MTD) website, 2020.
Ventura County Transportation Commission (VCTC) website, 2020.



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MAP SOURCE: SANTA BARBARA METROPOLITAN TRANSIT DISTRICT

★ PROJECT SITE

FIGURE 4-2
EXISTING PUBLIC TRANSIT ROUTES

LINSCOTT, LAW & GREENSPAN, engineers

GOLETA TRAIN DEPOT

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5.0 VEHICLE MILES TRAVELED ASSESSMENT

5.1 Introduction

VMT is defined as a measurement of miles traveled by vehicles within a specified region and for a specified time period. VMT is a measure of the use and efficiency of the transportation network. VMTs are calculated based on individual vehicle trips generated and their associated trip lengths. VMT accounts for two-way (round-trip) travel and is often estimated for a typical weekday for the purposes of measuring transportation impacts.

In September 2013, the Governor's Office signed Senate Bill 743 (SB 743), starting a process that fundamentally changes the way transportation impact analysis is conducted under the California Environmental Quality Act. Within the State's CEQA Guidelines, these changes include the elimination of auto delay, LOS, and similar measurements of vehicular roadway capacity and traffic congestion as the basis for determining significant traffic impacts. SB 743 identifies VMT as the most appropriate CEQA transportation metric, along with the elimination of auto delay/LOS for CEQA purposes statewide. The justification for this paradigm shift is that LOS impacts lead to improvements that increase roadway capacity and therefore induce more traffic and greenhouse gas emissions.

In July 2020, the Goleta City Council formally adopted VMT as the criteria for determining transportation impacts of development projects in Resolution No. 20-44. The Resolution includes VMT guidelines and thresholds for measuring transportation impacts under CEQA. Accordingly, a VMT assessment has been prepared of the Project's potential VMT impact based on the guidelines presented in the Resolution.

5.2 Project VMT

In accordance with the technical advisory issued by the Governor's Office of Planning and Research[2], the Resolution states that transportation projects such as transit and active transportation projects "would not likely lead to a measurable or substantial increase in vehicle travel, and are therefore presumed to cause a less than significant impact" regarding VMT. The Project consists of the development of a train depot and is therefore classified as a transit project. Thus, in accordance with the State of California's technical advisory and the City of Goleta's VMT guidelines presented in Resolution No. 20-44, the Project is not expected to result in a substantial increase in vehicle travel and is deemed to have a less than significant VMT impact. Accordingly, no mitigation measures related to VMT are required or recommended in conjunction with the Project.

[2] *Technical Advisory on Evaluating Transportation Impacts in CEQA,* Governor's Office of Planning and Research, December 2018

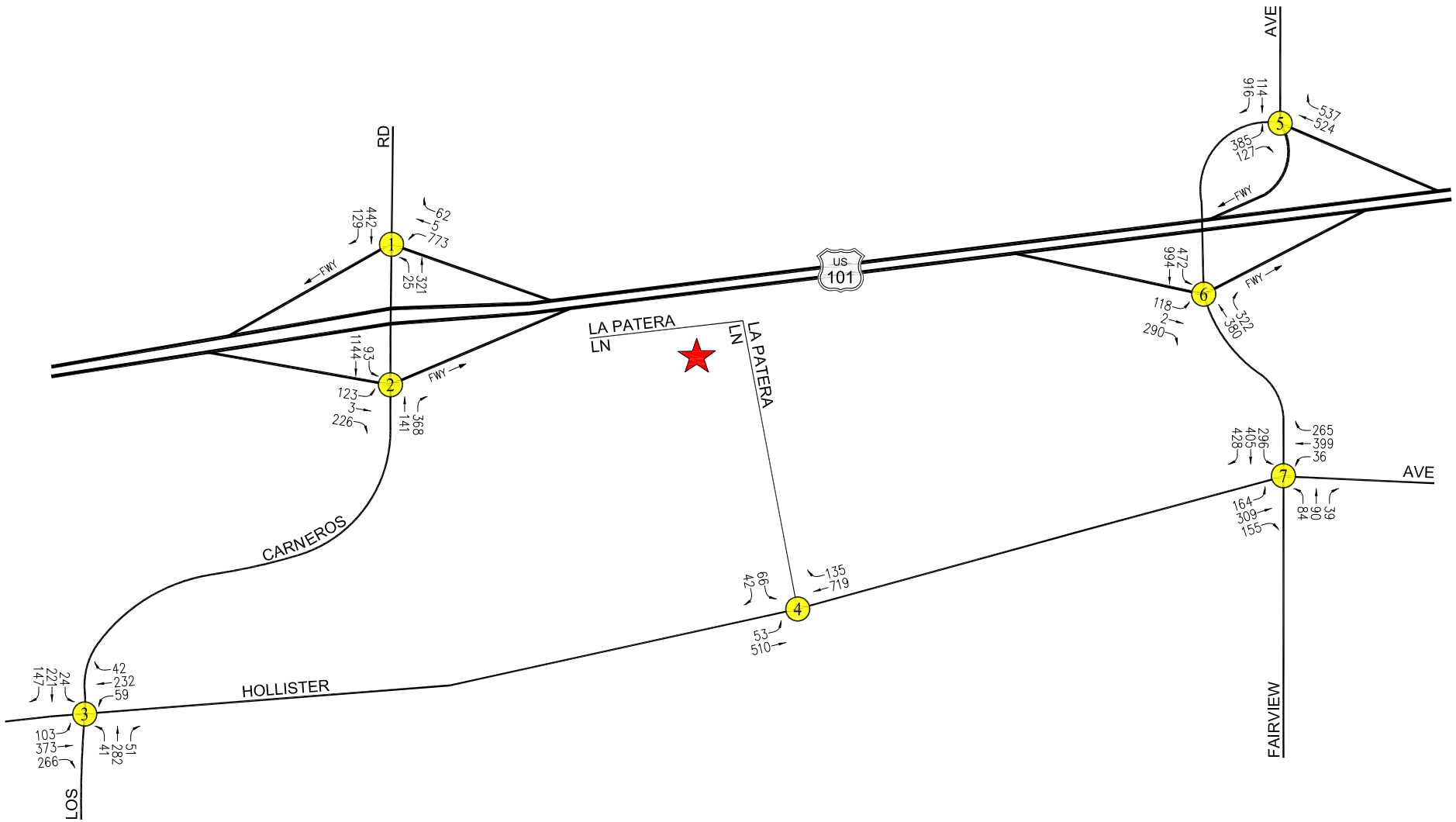
6.0 TRAFFIC COUNTS

The City's Resolution requires that a Level of Service (LOS) analysis be performed at the local level, per Policy TE-4 of the City's General Plan. Due to the Covid-19 pandemic, traffic count data could not be collected at the study intersections. In consultation with City staff, historical data at the study intersections was utilized to represent current (pre-pandemic) traffic volume conditions. The historical data was taken from peak hour traffic volume data collected at the following study intersections in the years 2007 and 2019:

1. Los Carneros Road / US-101 Northbound ramps (2007)
2. Los Carneros Road / US-101 Southbound ramps (2007)
3. Los Carneros Road / Hollister Avenue (2007)
4. La Patera Lane / Hollister Avenue (2007)
5. Fairview Avenue / US-101 Northbound ramps (2019)
6. Fairview Avenue / US-101 Southbound ramps (2019)
7. Fairview Avenue / Hollister Avenue (2019)

While appropriate modifications are normally applied to historical data to estimate current year (2020) peak hour turning movement traffic volumes at the study intersections, a comparison between the historical data collected at the study intersections in the years 2007 and 2019 indicated that counts conducted in the year 2007 were greater than counts conducted in the year 2019. Therefore, the existing traffic volumes were determined directly from the historical data at the study intersections (i.e., no adjustments are required to the historical data to represent existing conditions).

The existing traffic volumes at the study intersections during the weekday AM and PM peak hours are shown in ***Figures 6–1*** and ***6-2,*** respectively. Summary data worksheets of the historical traffic counts at the study intersections are contained in ***Appendix A***.



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★ PROJECT SITE

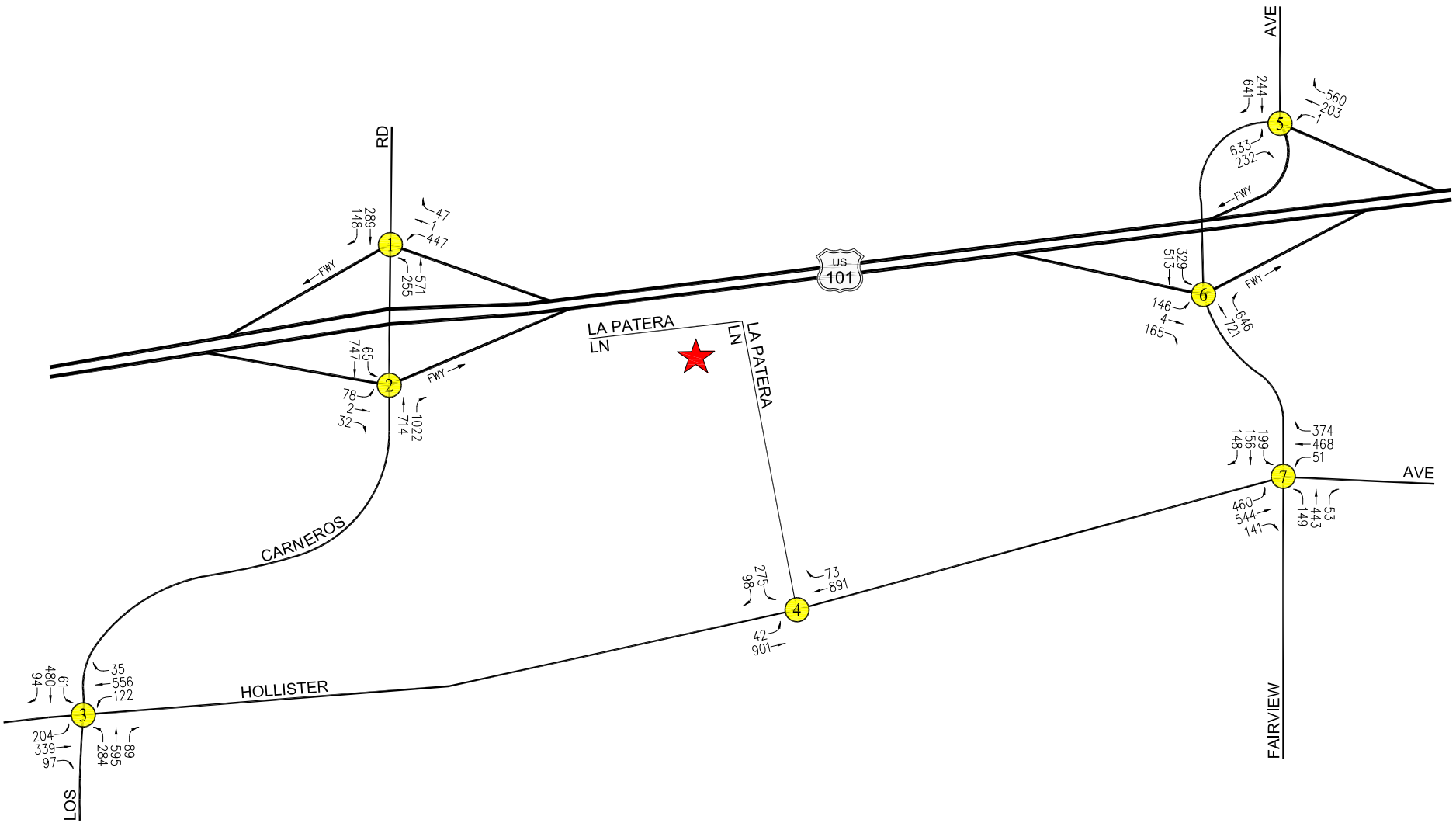
Ⓧ STUDY INTERSECTION

FIGURE 6-1
EXISTING TRAFFIC VOLUMES

WEEKDAY AM PEAK HOUR
GOLETA TRAIN DEPOT

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Ⓧ STUDY INTERSECTION

FIGURE 6-2
EXISTING TRAFFIC VOLUMES

WEEKDAY PM PEAK HOUR

GOLETA TRAIN DEPOT

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7.0 FUTURE CONDITIONS

The forecast of future pre-Project conditions was prepared in consultation with City staff. For developing a future traffic volume forecast, an ambient traffic growth factor was applied in this traffic analysis.

7.1 Ambient Traffic Growth Factor

In order to account for unknown development projects (related projects) in the area, the existing traffic volumes were increased at an annual rate of 2.0 percent (2.0%) per year to the year 2024 (i.e., the anticipated year of Project build-out). The ambient growth factor was estimated from existing 2019 peak hour traffic volumes and future 2022 peak hour traffic volumes for a related transportation project[3] (the Ekwill Extension project) in the Project study area. Based on the Ekwill traffic study, the traffic growth projections are derived from the City's Goleta Travel Model. The Goleta Travel Model forecasts future year 2042 traffic volumes based on, for example:

- Buildout of the Goleta General Plan,
- Buildout of the County of Santa Barbara's Eastern Goleta Valley Community Plan, Isla Vista Specific Plan, and Gaviota Community Plan,
- Buildout of the University of California at Santa Barbara Long Range Plan, and
- Buildout of the Santa Barbara Airport Master Plan and Airport Specific Plan.

The Goleta Travel Model was completed in 2017. On an approximate basis, the approximate annual traffic growth on the streets located in the Project study area is expected to be approximately 1% per year. Therefore, the use of 2% annual traffic growth factor for purposes of forecasting future pre-Project traffic volumes in the year 2022 is considered to be conservative.

[3] *Ekwill Extension Circulation Improvement Traffic Impact Analysis*, GHD Group, March 2020.

8.0 TRAFFIC FORECASTING METHODOLOGY

In order to estimate the traffic operational characteristics related to the proposed Project, a multi-step process has been utilized. The first step is trip generation, which estimates the total arriving and departing traffic volumes on a peak hour and daily basis. The traffic generation potential is forecast by applying the appropriate vehicle trip generation equations or rates to the Project development tabulation.

The second step of the forecasting process is trip distribution, which identifies the origins and destinations of inbound and outbound Project traffic volumes. These origins and destinations are typically based on demographics and existing/anticipated travel patterns in the study area.

The third step is traffic assignment, which involves the allocation of Project traffic to study area streets and intersections. Traffic assignment is typically based on minimization of travel time, which may or may not involve the shortest route, depending on prevailing operating conditions and travel speeds. Traffic distribution patterns are indicated by general percentage orientation, while traffic assignment allocates specific volume forecasts to individual roadway links and intersection turning movements throughout the study area.

With the forecasting process complete and Project traffic assignments developed, the traffic effects of the proposed Project is isolated by comparing operational (i.e., Levels of Service) conditions at the selected key intersections using existing and expected future traffic volumes without and with forecast Project traffic. The need for site-specific and/or cumulative local area traffic improvements can then be evaluated.

8.1 Project Traffic Generation

Traffic volumes expected to be generated by the proposed Project during the weekday AM and PM peak hours, as well as on a daily basis, were estimated using rates published in the ITE *Trip Generation Manual*. The following trip generation rates were used to forecast the traffic volumes expected to be generated by the Project:

- Train Depot: ITE Land Use Code 90 (Park-and-Ride Lot with Bus or Light Rail Service) trip generation average rates were used to forecast the traffic volumes expected to be generated by the Project.

In addition to the trip generation forecasts for the proposed Project (which are essentially an estimate of the number of vehicles that could be expected to enter and exit the Project Site access points), an adjustment was made to the trip generation forecast based on the Project Site's existing land uses. The existing land use to be removed is a building providing 30,000 square feet of warehouse floor area and 10,000 square feet of office floor area. ITE Land Use Code 150 (Warehousing) and ITE Land Use Code 710 (General Office Building) trip generation average rates were used to estimate the trip reduction related to the removal of the existing uses from the Project Site.

As presented in ***Table 8–1***, the proposed Project is expected to generate 36 net new vehicle trips (28 inbound trips and 8 outbound trips) during the AM peak hour. During the PM peak hour, the proposed Project is expected to generate 36 net new vehicle trips (10 inbound trips and 26 outbound trips). Over a 24-hour period, the proposed Project is forecast to generate 202 daily trips ends (approximately 101 inbound trips and 101 outbound trips) during a typical weekday.

8.2 Project Traffic Distribution and Assignment

Project traffic volumes both entering and exiting the site have been distributed and assigned to the adjacent street system based on the following considerations:

- The site's proximity to major traffic corridors (i.e., Los Carneros Road, Fairview Avenue, Hollister Avenue, US-101 Freeway, etc.);
- Expected localized traffic flow patterns based on adjacent roadway channelization and presence of traffic signals;
- Existing intersection traffic volumes;
- Ingress/egress availability at the Project Site assuming the site access and circulation scheme described in Section 3.0;
- The location of existing and proposed parking areas;
- Nearby population and employment centers as well as adjacent residential neighborhoods;
- Input from City staff.

The general, directional traffic distribution patterns for the proposed Project are presented in ***Figure 8–1.*** The forecast net new weekday AM and PM peak hour Project traffic volumes at the study intersections associated with the proposed Project are presented in ***Figures 8–2*** and ***8–3***, respectively. The traffic volume assignments presented in *Figures 8–2* and *8–3* reflect the traffic distribution characteristics shown in *Figure 8–1* and the Project traffic generation forecast presented in *Table 8–1*.

Table 8-1
PROJECT TRIP GENERATION [1]

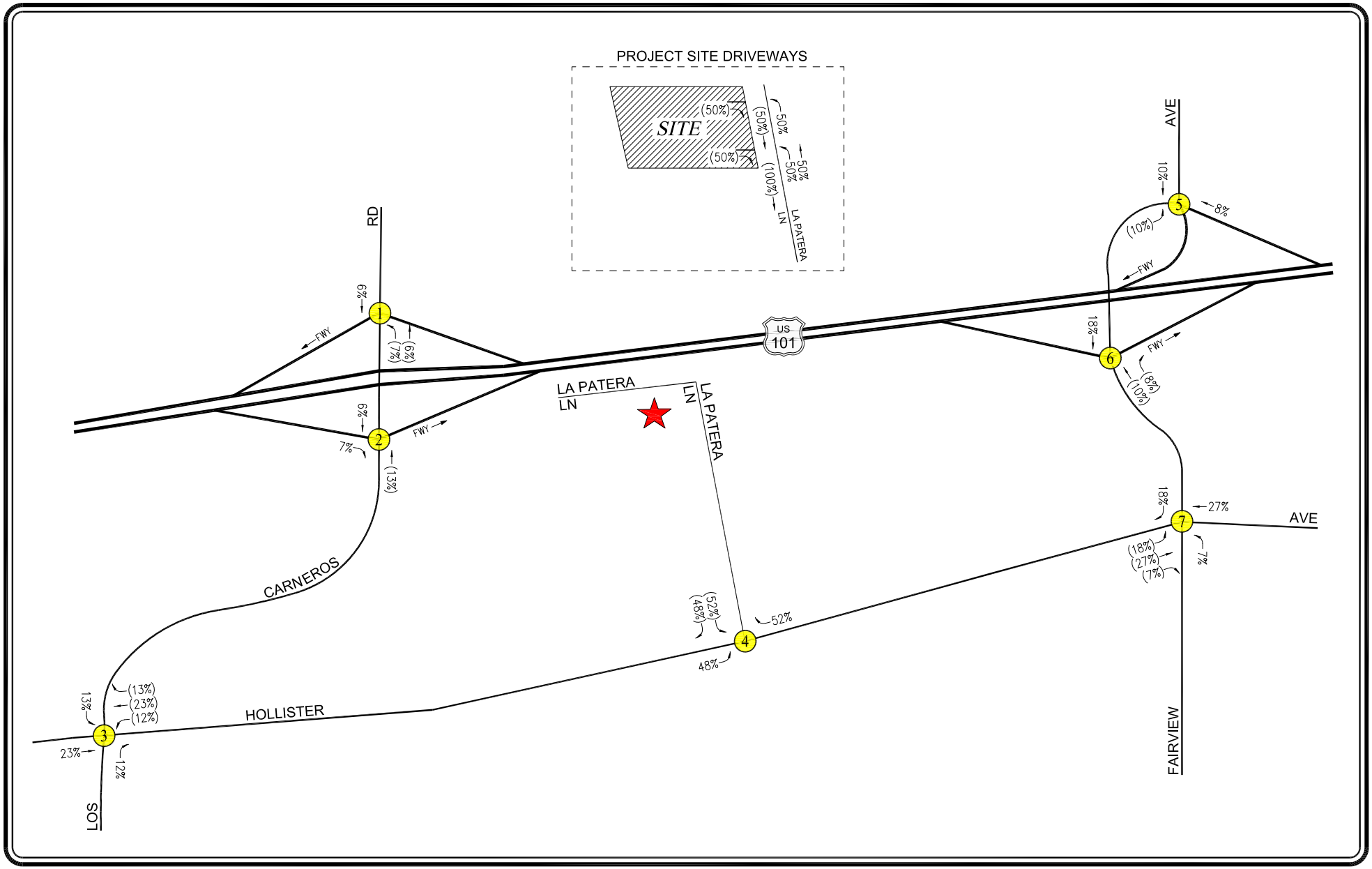
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LAND USE	SIZE	DAILY TRIP ENDS [2] VOLUMES	AM PEAK HOUR VOLUMES [2] IN	AM PEAK HOUR VOLUMES [2] OUT	AM PEAK HOUR VOLUMES [2] TOTAL	PM PEAK HOUR VOLUMES [2] IN	PM PEAK HOUR VOLUMES [2] OUT	PM PEAK HOUR VOLUMES [2] TOTAL
Proposed Project								
Train Depot [3]	125 Spaces	351	42	11	53	14	40	54
Subtotal Project Driveway Trips		**351**	**42**	**11**	**53**	**14**	**40**	**54**
Existing Site								
Warehouse [4]	(30,000) GSF	(52)	(4)	(1)	(5)	(2)	(4)	(6)
Office [5]	(10,000) GSF	(97)	(10)	(2)	(12)	(2)	(10)	(12)
Subtotal		(149)	(14)	(3)	(17)	(4)	(14)	(18)
Subtotal Existing Driveway Trips		**(149)**	**(14)**	**(3)**	**(17)**	**(4)**	**(14)**	**(18)**
NET INCREASE DRIVEWAY TRIPS		**202**	**28**	**8**	**36**	**10**	**26**	**36**

[1] Source: ITE "Trip Generation Manual", 10th Edition, 2017.
[2] Trips are one-way traffic movements, entering or leaving.
[3] ITE Land Use Code 90 (Park-and-Ride Lot with Bus or Light Rail Service) trip generation average rates.
- Daily Trip Rate: 2.81 trips/parking space; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.42 trips/parking space; 79% inbound/21% outbound
- PM Peak Hour Trip Rate: 0.43 trips/parking space; 25% inbound/75% outbound

[4] ITE Land Use Code 150 (Warehousing) trip generation average rates.
- Daily Trip Rate: 1.74 trips/1,000 SF of floor area; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.17 trips/1,000 SF of floor area; 77% inbound/23% outbound
- PM Peak Hour Trip Rate: 0.19 trips/1,000 SF of floor area; 27% inbound/73% outbound

[5] ITE Land Use Code 710 (General Office Building) trip generation average rates.
- Daily Trip Rate: 9.74 trips/1,000 SF of floor area; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 1.16 trips/1,000 SF of floor area; 86% inbound/14% outbound
- PM Peak Hour Trip Rate: 1.15 trips/1,000 SF of floor area; 16% inbound/84% outbound



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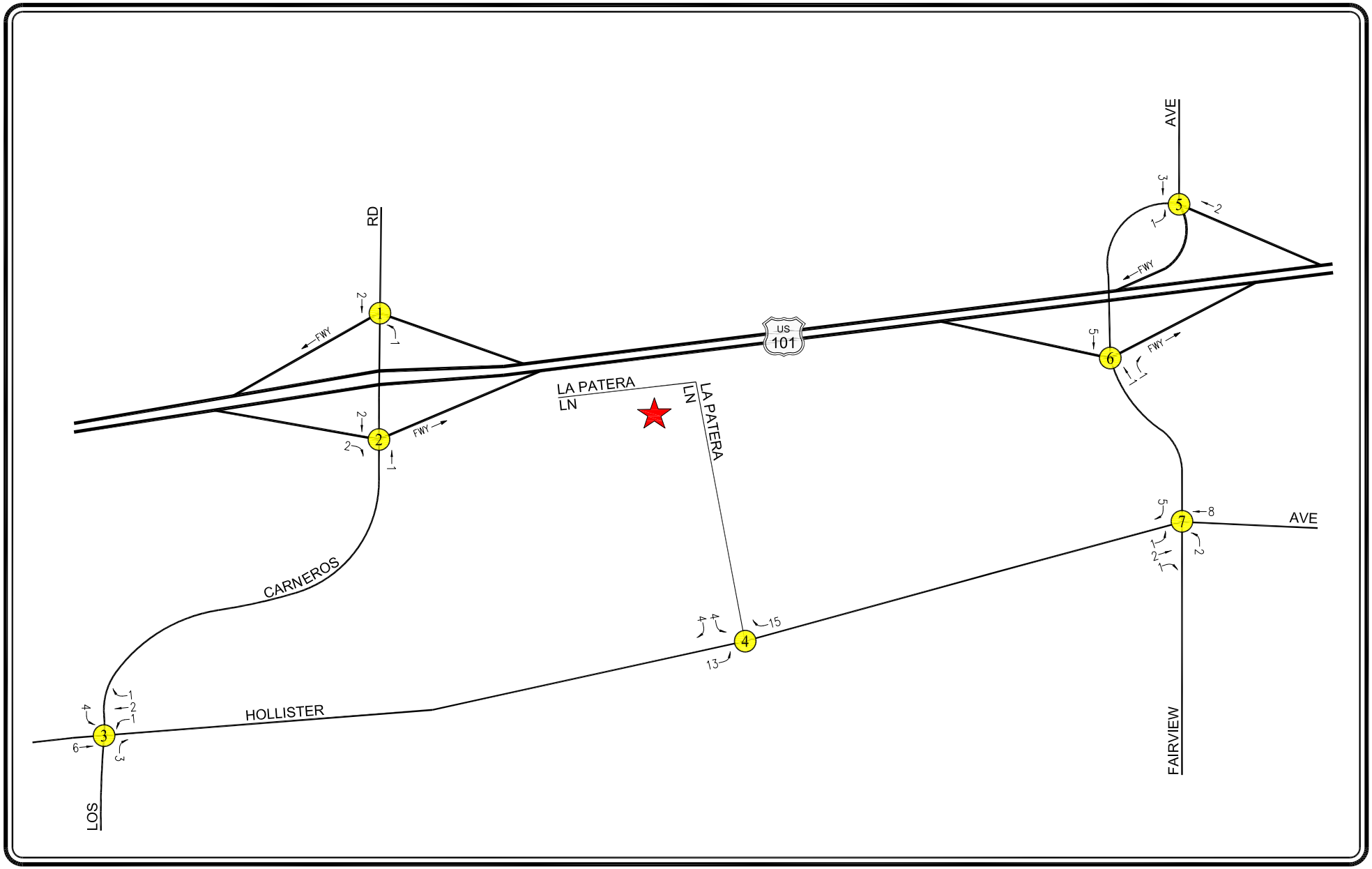
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= INBOUND PERCENTAGES
(##) = OUTBOUND PERCENTAGES

FIGURE 8-1
PROJECT TRIP DISTRIBUTION

LINSCOTT, LAW & GREENSPAN, engineers

GOLETA TRAIN DEPOT

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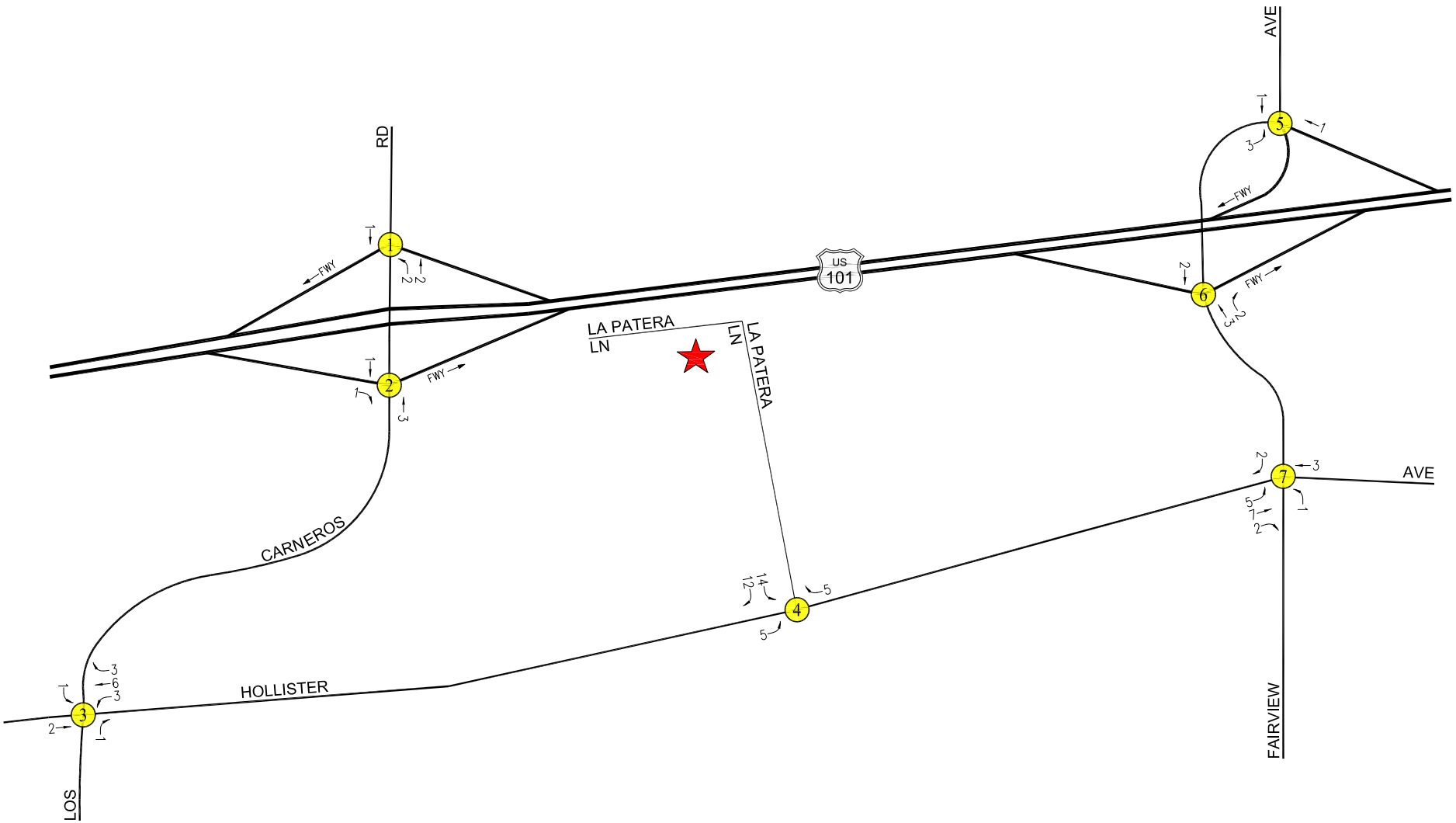
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FIGURE 8-2
NET NEW PROJECT TRAFFIC VOLUMES

WEEKDAY AM PEAK HOUR
GOLETA TRAIN DEPOT

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FIGURE 8-3
NET NEW PROJECT TRAFFIC VOLUMES

WEEKDAY PM PEAK HOUR
GOLETA TRAIN DEPOT

LINSCOTT, LAW & GREENSPAN, engineers

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9.0 TRAFFIC OPERATIONS ANALYSIS METHODOLOGY

Three of the study intersections are located within the City of Goleta, and therefore were evaluated using the Intersection Capacity Analysis (ICU) method of analysis. Specifically, the ICU method was used to determine *v/c* ratios and corresponding Levels of Service at the three study intersections as the ICU method is used for traffic analysis purposes in the City of Goleta. The ICU calculations use a lane capacity of 1,600 vehicles per hour (vph) for left-turn, through, and right-turn lanes, and dual left-turn capacity of 2,800 vph. A clearance adjustment factor of 0.10 was added to each ICU Level of Service calculation.

A supplemental traffic analysis was prepared using the Highway Capacity Manual[4] (HCM 6th Edition) method for the four study intersections located within the State of California Department of Transportation (Caltrans) jurisdiction. Specifically, the HCM 6th Edition methodology estimates the average control delay for each of the subject movements and determines the LOS for each constrained movement. The overall intersection average control delay is subsequently assigned a LOS value to describe intersection operations. Intersection analyses were prepared utilizing the *Synchro 10* software package for the study intersections within Caltrans jurisdiction. The *Synchro 10* software package implements HCM 6th Edition operational methods.

The Levels of Service under the ICU and HCM 6th Edition methodologies for signalized intersections vary from LOS A (free flow) to LOS F (jammed condition). A description of the ICU and HCM 6th Edition methods and corresponding LOS are provided in ***Appendix B*** and ***C,*** respectively.

9.1 Intersection Operations Criteria

The relative effects of the added Project traffic volumes to be generated by the proposed Project during the AM and PM peak hours were evaluated based on analysis of future operating conditions at the study intersections, without and with the proposed Project. The previously discussed capacity analysis procedures were utilized to evaluate the future *v/*c and delay relationships and service level characteristics at each study intersection.

9.1.1 *City of Goleta Criteria*

The potential effects of Project-generated traffic were evaluated using the traffic operations criteria set forth in the City of Goleta *Environmental Review Guidelines,* August 2008. According to the City's published traffic study guidelines, the operations criteria is exceeded if the Project-related increase in the *v/c* ratio or number of peak hour trips is equal to or exceeds the thresholds presented in ***Table 9–1*** for intersections located within the City of Goleta.

[4] *Highway Capacity Manual 6th Edition,* Transportation Research Board of the National Academies of Sciences-Engineering-Medicine, 2016.

Table 9-1 CITY OF GOLETA INTERSECTION OPERATIONS CRITERIA			
Final v/c	**Level of Service**	**Project-Related Increase in v/c**	**Project-Related Increase in Peak Hour Trips**
<=0.60	A	equal to or greater than 0.20	--
0.61-0.70	B	equal to or greater than 0.15	--
0.71-0.80	C	equal to or greater than 0.10	--
0.81-0.90	D	--	equal to or greater than 15 trips
0.91-1.00	E	--	equal to or greater than 10 trips
>1.00	F	--	equal to or greater than 5 trips

For the study intersections located within Caltrans jurisdiction, the relative traffic effects were assessed based on the target LOS (i.e., the transition between stable and unstable flow) established by the Caltrans *Guide for the Preparation of Traffic Impact Studies*, December 2002. ***Table 9-2*** provides the LOS criteria, type of flow, and thresholds of significance for study intersections under Caltrans jurisdiction.

Table 9-2 STATE OF CALIFORNIA (CALTRANS) LOS AND INTERSECTION OPERATIONS CRITERIA			
Control Delay (sec / veh)	**Type of Flow**	**Level of Service**	**Project-Related Increase in Delay**
<=10	Stable Flow	A	--
10-20	Stable Flow	B	--
20-35	Stable Flow	C	--
35-55	Approaching Unstable Flow	D	--
55-80	Unstable Flow	E	equal to or greater than 5 seconds
>80	Forced Flow	F	equal to or greater than 5 seconds

As required by the City of Goleta and State of California, measures may be required whenever traffic generated by the proposed development causes an increase of the analyzed intersection *v/c* ratio, number of peak hour trips, or delay by an amount equal to or greater than the values shown above.

9.2 Traffic Analysis Scenarios

LOS calculations have been prepared for the following scenarios for the seven study intersections located within the City of Goleta and the State of California:

(a) Existing (2020) conditions.

(b) Condition (a) with completion and occupancy of the Project.

(c) Condition (b) with implementation of Project measures where necessary.

(d) Condition (a) plus two percent (2.0%) annual ambient traffic growth through year 2024 (i.e., future cumulative baseline).

(e) Condition (d) with completion and occupancy of the Project.

(f) Condition (e) with implementation of Project measures where necessary.

The traffic volumes for each new condition were added to the volumes in the prior condition to determine the change in capacity utilization at the study intersections.

10.0 CITY OF GOLETA TRAFFIC ANALYSIS

The traffic analysis prepared for the three study intersections located within the City of Goleta using the ICU methodology and application of the City of Goleta traffic operations criteria is summarized in ***Table 10–1.*** The ICU data worksheets for the analyzed intersections are contained in *Appendix B*.

10.1 Existing Conditions

10.1.1 *Existing Conditions*

As indicated in column [1] of *Table 10–1*, the three study intersections located within the City of Goleta are presently operating at LOS B or better during the weekday AM and PM peak hours under existing conditions. The existing traffic volumes at the study intersections during the weekday AM and PM peak hours are displayed in *Figures 6–1* and *6–2*, respectively.

10.1.2 *Existing with Project Conditions*

As shown in column [2] of *Table 10–1,* application of the City's threshold criteria to the "Existing with Project" scenario indicates that Project-related traffic is not expected to exceed the traffic operations criteria at any of the three study intersections. Therefore, no measures are required or recommended with respect to these intersections under the "Existing with Project" conditions. The existing with project traffic volumes at the study intersections during the weekday AM and PM peak hours are illustrated in ***Figures 10–1*** and ***10–2***, respectively.

10.2 Future Conditions

10.2.1 *Future Cumulative Baseline Conditions*

The future cumulative baseline conditions were forecast based on the addition of traffic generated by the growth in traffic due to the combined effects of continuing development, intensification of existing developments and other factors (i.e., ambient growth). The *v/c* ratios at all of the study intersections are incrementally increased with the addition of ambient traffic.

As presented in column [3] of *Table 10–1*, the three study intersections located within the City of Goleta are expected to operate at LOS B or better during the weekday AM and PM peak hours with the addition of growth in ambient traffic under the future cumulative baseline conditions. The future cumulative baseline (existing and ambient growth) traffic volumes at the study intersections during the weekday AM and PM peak hours are presented in ***Figures 10–3*** and ***10–4***, respectively.

Table 10-1
SUMMARY OF VOLUME TO CAPACITY RATIOS
AND LEVELS OF SERVICE
AM AND PM PEAK HOURS
CITY OF GOLETA INTERSECTIONS

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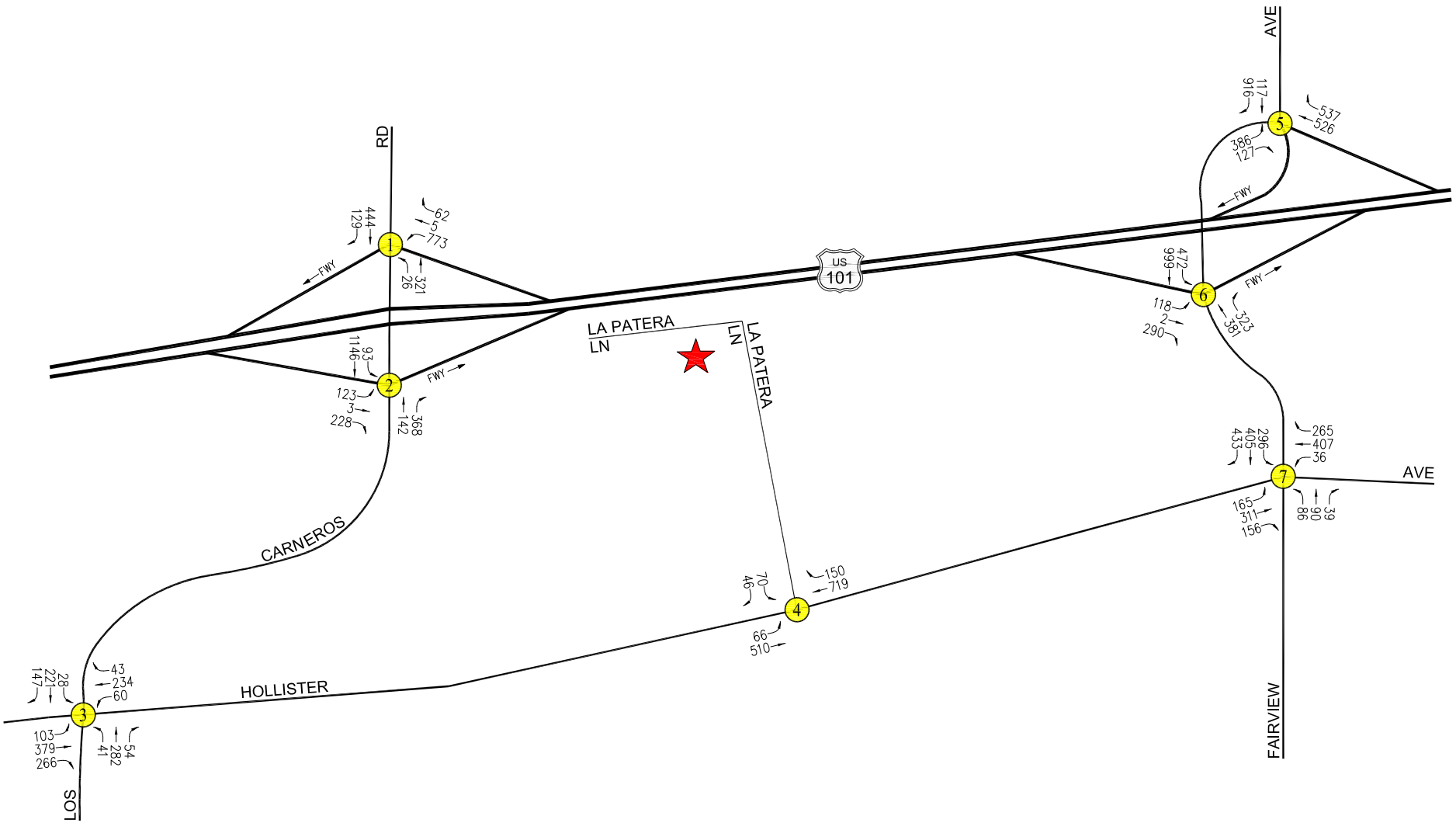
NO.	INTERSECTION	PEAK HOUR	[1] YEAR 2020 EXISTING V/C	[1] YEAR 2020 EXISTING LOS [a]	[2] YEAR 2020 EXISTING W/ PROJECT V/C	[2] YEAR 2020 EXISTING W/ PROJECT LOS	[2] CHANGE IN V/C [(2)-(1)]	[2] CRITERIA EXCEEDED [b]	[3] YEAR 2024 FUTURE PRE-PROJECT V/C	[3] YEAR 2024 FUTURE PRE-PROJECT LOS [a]	[4] YEAR 2024 FUTURE W/ PROJECT V/C	[4] YEAR 2024 FUTURE W/ PROJECT LOS	[4] CHANGE IN V/C [(4)-(3)]	[4] CRITERIA EXCEEDED [b]
3	Los Carneros Road /	AM	0.406	A	0.409	A	0.003	NO	0.431	A	0.434	A	0.003	NO
	Hollister Avenue	PM	0.587	A	0.590	A	0.003	NO	0.627	B	0.630	B	0.003	NO
4	La Patera Lane /	AM	0.441	A	0.457	A	0.016	NO	0.469	A	0.484	A	0.015	NO
	Hollister Avenue	PM	0.599	A	0.613	B	0.014	NO	0.640	B	0.654	B	0.014	NO
7	Fairview Avenue /	AM	0.545	A	0.552	A	0.007	NO	0.581	A	0.588	A	0.007	NO
	Hollister Avenue	PM	0.633	B	0.634	B	0.001	NO	0.677	B	0.678	B	0.001	NO

[a] Signalized Intersection Levels of Service were based on the following criteria:

V/C Ratio	LOS
<= 0.60	A
0.61-0.70	B
0.71-0.80	C
0.81-0.90	D
0.91-1.00	E
> 1.00	F

[b] According to the City of Goleta, intersection operations are evaluated based on the following criteria:

Level of Service	Project-Related Increase in V/C	Level of Service	Project-Related Increase in Peak Hour Trips
A	equal to or greater than 0.20	D	equal to or greater than 15 trips
B	equal to or greater than 0.15	E	equal to or greater than 10 trips
C	equal to or greater than 0.10	F	equal to or greater than 5 trips



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★ PROJECT SITE

Ⓧ STUDY INTERSECTION

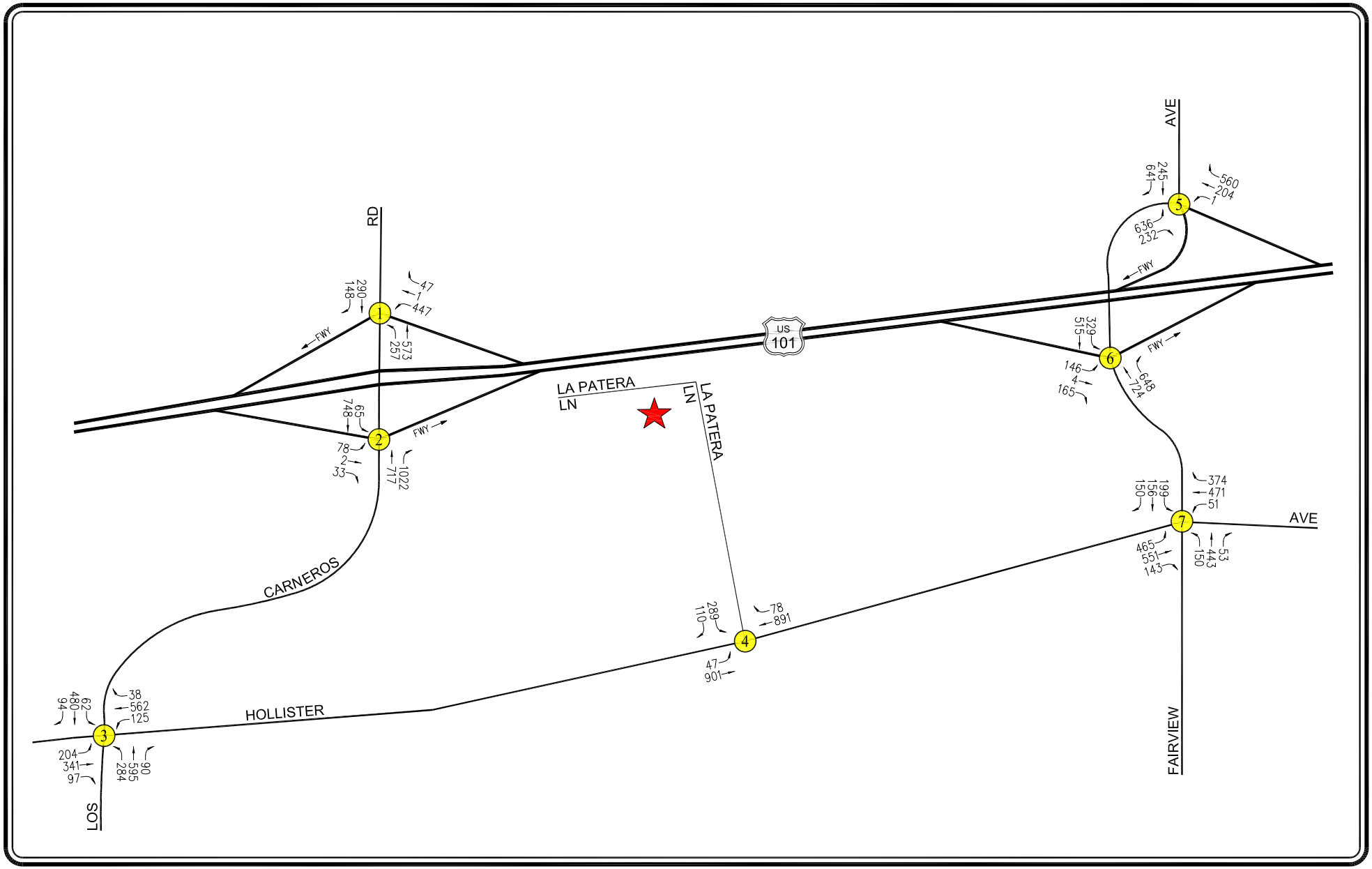
FIGURE 10-1
EXISTING WITH PROJECT TRAFFIC VOLUMES

WEEKDAY AM PEAK HOUR

GOLETA TRAIN DEPOT

LINSCOTT, LAW & GREENSPAN, engineers

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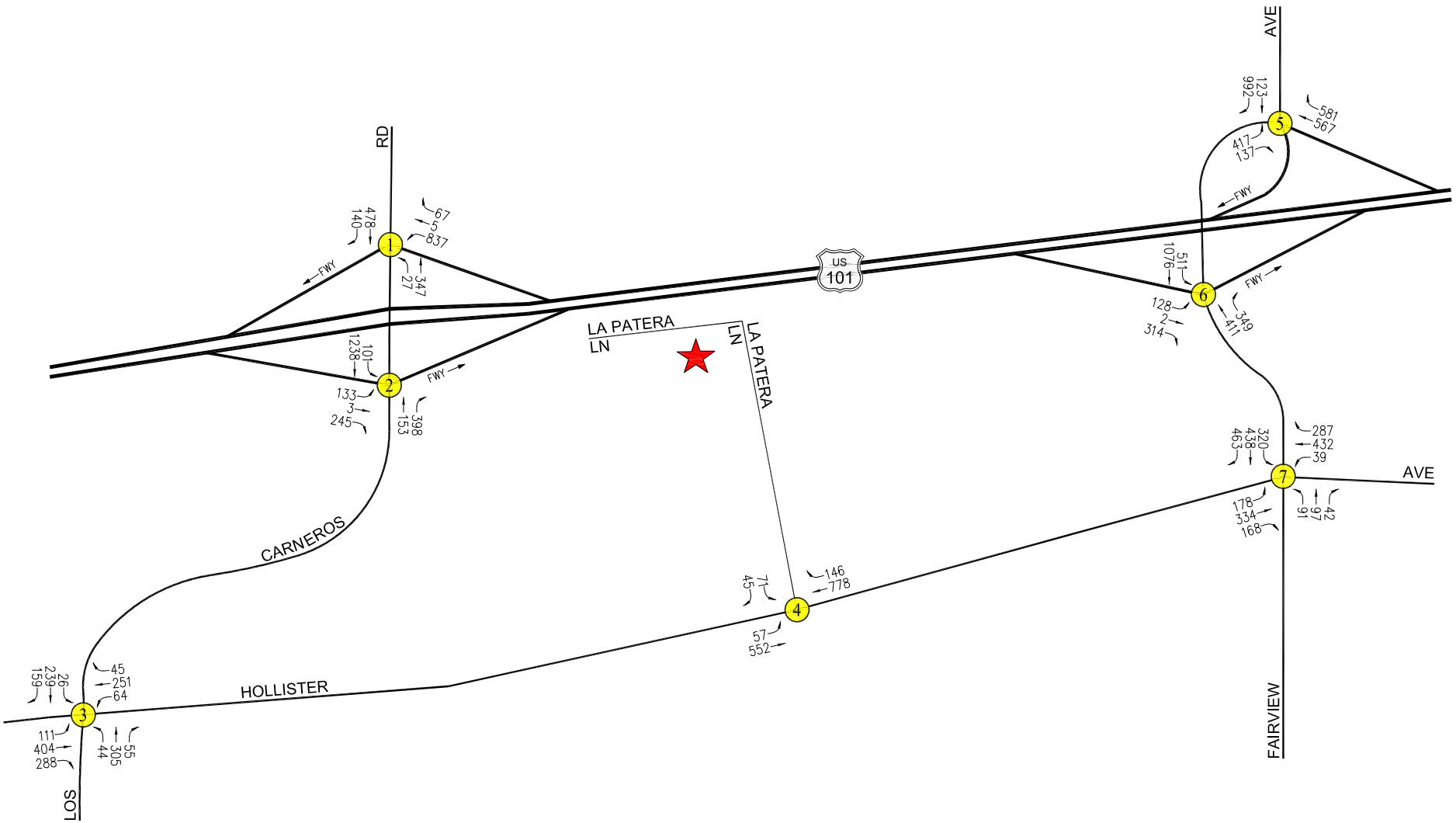
FIGURE 10-2
EXISTING WITH PROJECT TRAFFIC VOLUMES

WEEKDAY PM PEAK HOUR

GOLETA TRAIN DEPOT

LINSCOTT, LAW & GREENSPAN, engineers

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STUDY INTERSECTION

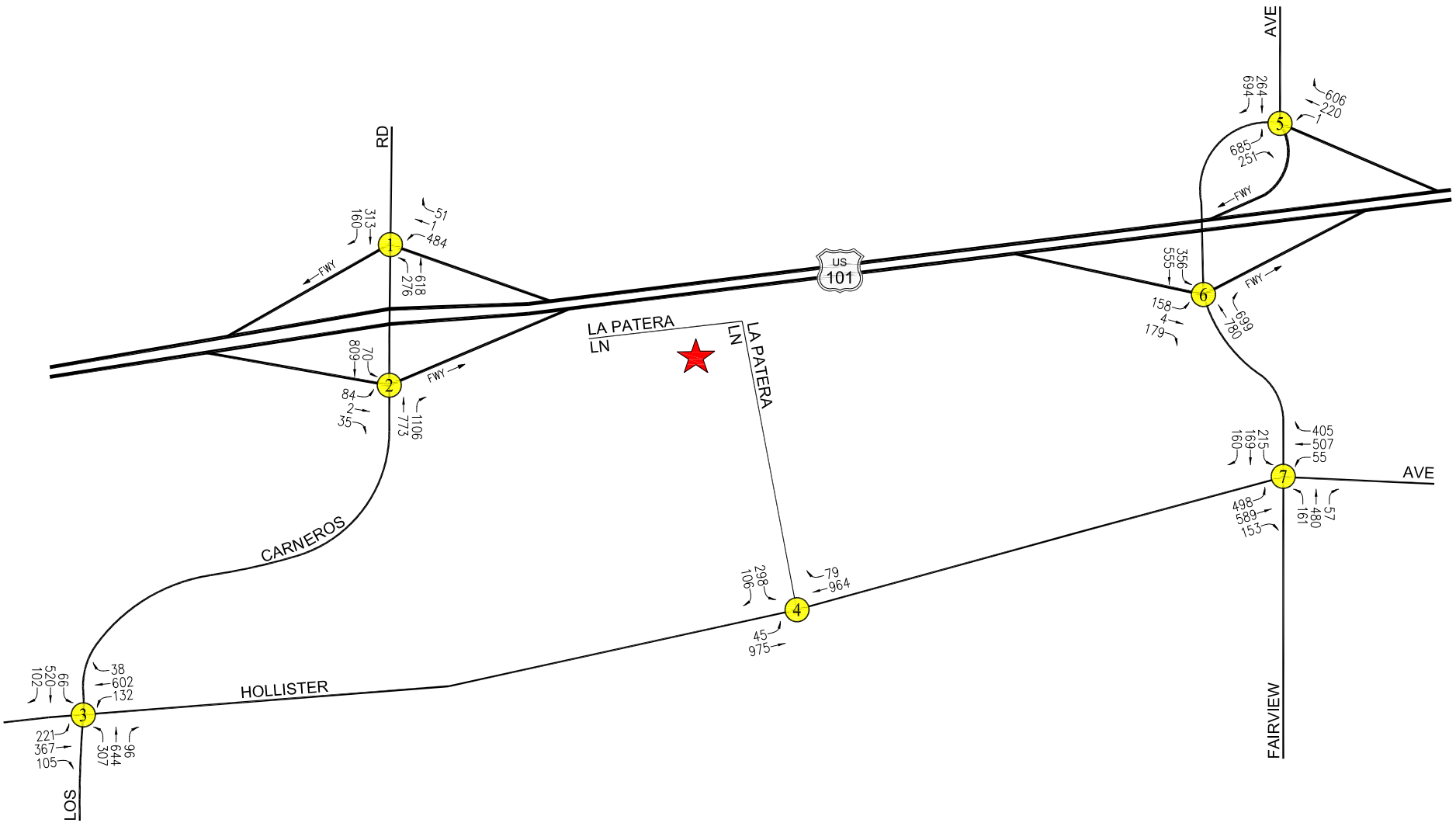
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FIGURE 10-3
FUTURE CUMULATIVE BASELINE TRAFFIC VOLUMES

WEEKDAY AM PEAK HOUR
GOLETA TRAIN DEPOT

LINSCOTT, LAW & GREENSPAN, engineers

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FIGURE 10-4

FUTURE CUMULATIVE BASELINE TRAFFIC VOLUMES

WEEKDAY PM PEAK HOUR

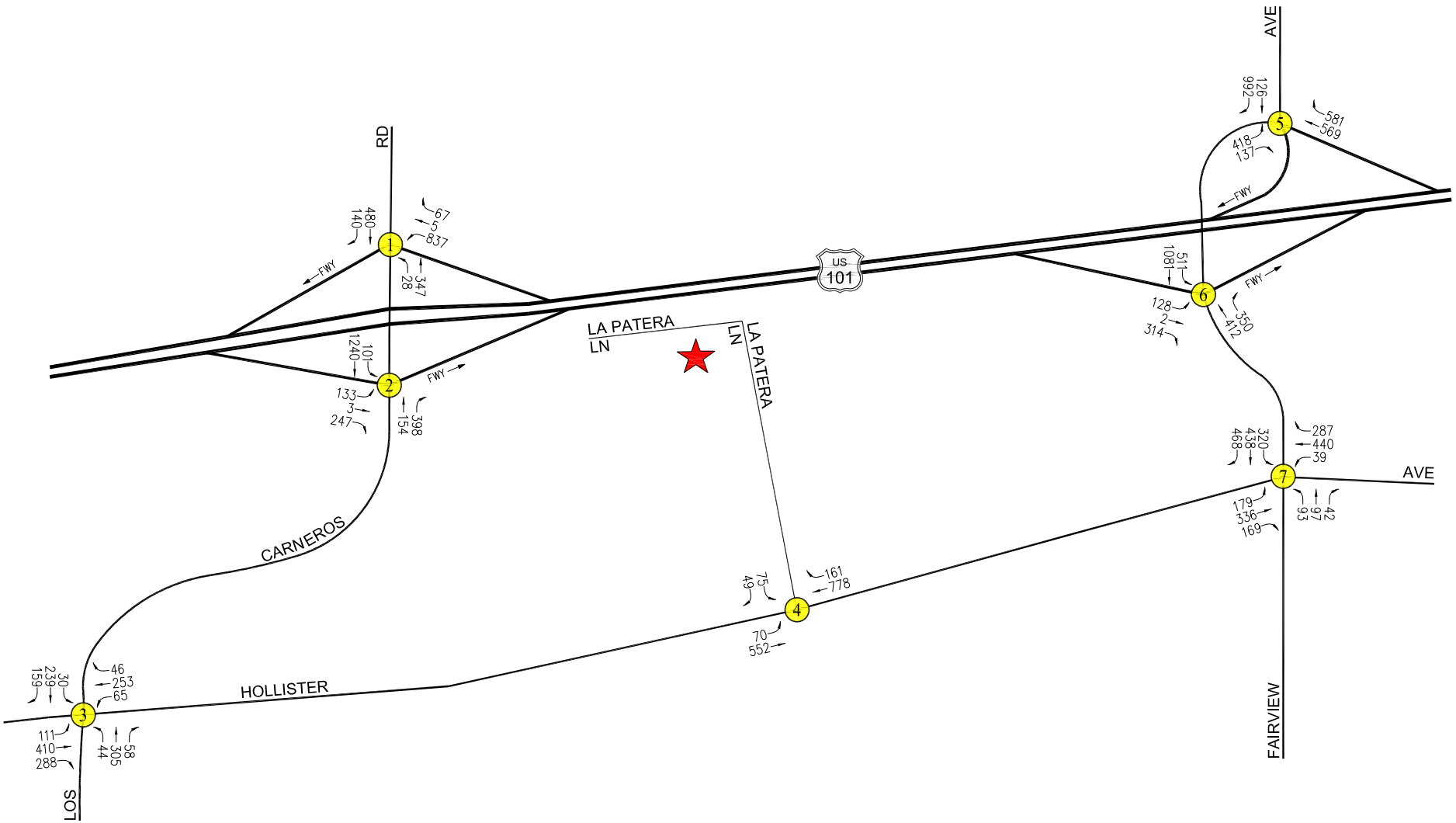
GOLETA TRAIN DEPOT

LINSCOTT, LAW & GREENSPAN, engineers

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10.2.2 *Future Cumulative with Project Conditions*

The "Future Cumulative with Project" conditions were forecast based on the addition of traffic generated by the Project plus the addition of ambient traffic. As shown in column [4] of *Table 10–1*, Project-related traffic is not expected to exceed the operations criteria at any of the three study intersections in the "Future Cumulative with Project" scenario. Therefore, no measures are required or recommended at these intersections under the "Future Cumulative with Project" conditions. The future cumulative with project (existing, ambient growth, and Project) traffic volumes at the study intersections during the weekday AM and PM peak hours are illustrated in ***Figures 10–5*** and ***10–6***, respectively.



N

NOT TO SCALE

★ PROJECT SITE

Ⓧ STUDY INTERSECTION

FIGURE 10-5

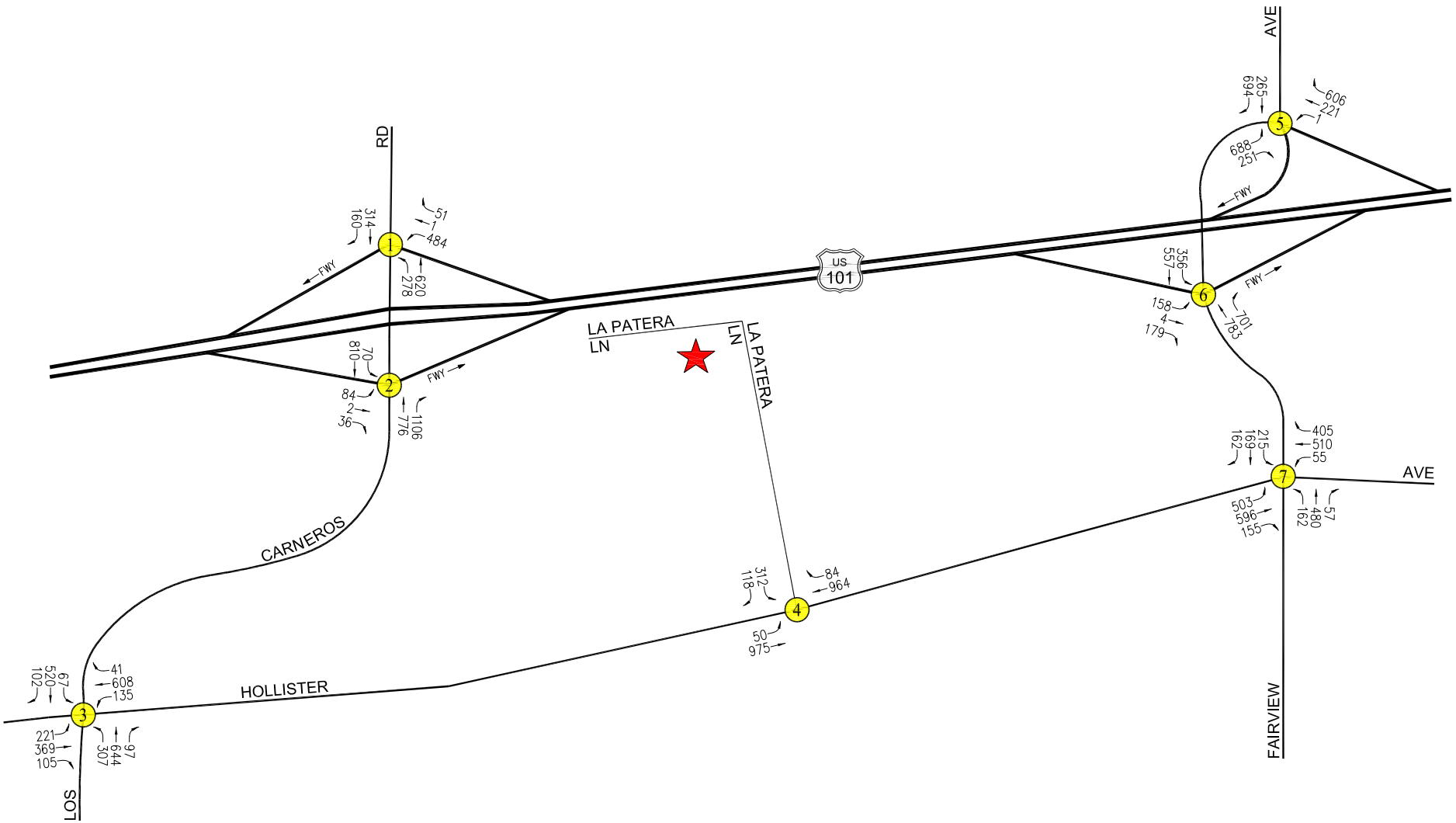
FUTURE CUMULATIVE WITH PROJECT TRAFFIC VOLUMES

WEEKDAY AM PEAK HOUR

GOLETA TRAIN DEPOT

LINSCOTT, LAW & GREENSPAN, engineers

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N

NOT TO SCALE

★ PROJECT SITE

Ⓧ STUDY INTERSECTION

FIGURE 10-6

FUTURE CUMULATIVE WITH PROJECT TRAFFIC VOLUMES

WEEKDAY PM PEAK HOUR

GOLETA TRAIN DEPOT

LINSCOTT, LAW & GREENSPAN, engineers

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11.0 CALTRANS TRAFFIC ANALYSIS

The traffic analysis prepared for the four study intersections located within Caltrans jurisdiction using the HCM 6th Edition methodology and application of the Caltrans target LOS and traffic operations criteria is summarized in ***Table 11–1.*** The *Synchro 10* data worksheets for the analyzed intersections are contained in *Appendix C*.

11.1 Existing Conditions

11.1.1 *Existing Conditions*

As indicated in column [1] of *Table 11–1*, the four study intersections located within Caltrans jurisdiction are presently operating at LOS C or better during the weekday AM and PM peak hours under existing conditions. The existing traffic volumes at the study intersections during the weekday AM and PM peak hours are displayed in *Figures 6–1* and *6–2*, respectively.

11.1.2 *Existing with Project Conditions*

As shown in column [2] of *Table 11–1,* application of the City's threshold criteria to the "Existing with Project" scenario indicates that Project-related traffic is not expected to exceed the operations criteria at any of the four study intersections. Therefore, no measures are required or recommended at these intersections under the "Existing with Project" conditions. The existing with project traffic volumes at the study intersections during the weekday AM and PM peak hours are illustrated in *Figures 10–1* and *10–2,* respectively.

11.2 Future Conditions

11.2.1 *Future Cumulative Baseline Conditions*

The future cumulative baseline conditions were forecast based on the addition of traffic generated by the growth in traffic due to the combined effects of continuing development, intensification of existing developments and other factors (i.e., ambient growth). The delay values at all of the study intersections are incrementally increased with the addition of ambient traffic.

As presented in column [3] of *Table 11–1*, the four study intersections located within Caltrans jurisdiction are expected to operate at LOS C or better during the weekday AM and PM peak hours with the addition of growth in ambient traffic under the future cumulative baseline conditions. The future cumulative baseline (existing and ambient growth) traffic volumes at the study intersections during the weekday AM and PM peak hours are presented in *Figures 10–3* and *10–4*, respectively.

Table 11-1
SUMMARY OF DELAY VALUES
AND LEVELS OF SERVICE [a]
AM AND PM PEAK HOURS
CALTRANS INTERSECTIONS

02-Sep-20

NO.	INTERSECTION	PEAK HOUR	[1] YEAR 2020 EXISTING DELAY [b]	[1] YEAR 2020 EXISTING LOS [c]	[2] YEAR 2020 EXISTING PLUS PROPOSED PROJECT DELAY	[2] YEAR 2020 EXISTING PLUS PROPOSED PROJECT LOS	[2] CHANGE DELAY [(2)-(1)]	[2] CRITERIA EXCEEDED [d]	[3] YEAR 2024 FUTURE DELAY [b]	[3] YEAR 2024 FUTURE LOS [c]	[4] YEAR 2024 FUTURE PLUS PROPOSED PROJECT DELAY	[4] YEAR 2024 FUTURE PLUS PROPOSED PROJECT LOS	[4] CHANGE DELAY [(4)-(3)]	[4] CRITERIA EXCEEDED [d]
1	Los Carneros Road /	AM	18.0	B	18.0	B	0.0	NO	18.7	B	18.8	B	0.1	NO
	US-101 NB Ramps	PM	20.3	C	20.3	C	0.0	NO	20.9	C	20.9	C	0.0	NO
2	Los Carneros Road /	AM	13.9	B	13.9	B	0.0	NO	14.7	B	14.8	B	0.1	NO
	US-101 SB Ramps	PM	14.8	B	14.8	B	0.0	NO	23.0	C	23.0	C	0.0	NO
5	Fairview Avenue /	AM	10.0	A	10.0	A	0.0	NO	11.3	B	11.3	B	0.0	NO
	US-101 NB Ramps	PM	13.4	B	13.5	B	0.1	NO	17.0	B	17.1	B	0.1	NO
6	Fairview Avenue /	AM	15.8	B	15.8	B	0.0	NO	17.0	B	17.0	B	0.0	NO
	US-101 SB Ramps	PM	21.6	C	21.7	C	0.1	NO	31.2	C	31.4	C	0.2	NO

[a] Intersection analysis results per SYNCHRO 10.

[b] Control delay reported in seconds per vehicle.

[c] Signalized Intersection Levels of Service were based on the following criteria:

Control Delay (s/veh)	Type of Flow	LOS
<= 10	Stable Flow	A
> 10-20	Stable Flow	B
> 20-35	Stable Flow	C
> 35-55	Approaching Unstable Flow	D
> 55-80	Unstable Flow	E
> 80	Forced Flow	F

[d] Intersection operations evaluated based on the following criteria:

LOS	Project-Related Increase in Delay
E	5 seconds
F	5 seconds

11.2.2 *Future Cumulative with Project Conditions*

The "Future Cumulative with Project" conditions were forecast based on the addition of traffic generated by the Project plus the addition of ambient traffic. As shown in column [4] of *Table 11–1*, application of Caltrans' target LOS criteria and threshold criteria to the "Future Cumulative with Project" scenario indicates that Project-related traffic is not expected to exceed the operations criteria at any of the four study intersections. Therefore, no measures are required or recommended at these intersections under the "Future Cumulative with Project" conditions. The future cumulative with project (existing, ambient growth, and Project) traffic volumes at the study intersections during the weekday AM and PM peak hours are illustrated in *Figures 10–5* and *10–6*, respectively.

12.0 CONCLUSIONS

This traffic analysis has been prepared to evaluate the potential impacts due to the proposed train depot project located at 27 S. La Patera Lane in the City of Goleta. A VMT assessment has been prepared in accordance with the City of Goleta's Resolution No. 20-44. Based on the guidance provided in the Resolution, supplemented by the guidance provided in the Governor's Office technical advisory, VMT impacts of the Project are determined to be less than significant.

The City's Resolution also requires that a LOS analysis be performed at the local level per Policy TE-4 of the City's General Plan. Accordingly, seven intersections were identified and analyzed in order to determine changes in operations following construction and occupancy of the proposed Project. Application of the operations criteria from the City of Goleta and State of California indicate that none of the seven study intersections would exceed the operations criteria with the addition of the forecast Project traffic. Accordingly, no traffic measures are required or recommended for the study intersections.

APPENDIX A

HISTORICAL TRAFFIC COUNT DATA

Marriott Residence Inn
Existing (2007) Conditions
AM Peak Hour

Turning Movement Report
none

Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#3 Storke Road/Hollister Avenue													
Base	32	498	158	415	490	372	573	395	62	103	131	66	3295
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	32	498	158	415	490	372	573	395	62	103	131	66	3295
#9 Los Carneros Road/US-101 NB Ramps													
Base	25	321	0	0	442	129	0	0	0	773	5	62	1757
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	25	321	0	0	442	129	0	0	0	773	5	62	1757
#10 Los Carneros Road/US-101 SB Ramps													
Base	0	141	368	93	1144	0	123	3	226	0	0	0	2098
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	141	368	93	1144	0	123	3	226	0	0	0	2098
#11 Los Carneros Road/Calle Koral													
Base	0	451	6	223	1142	0	0	0	0	25	0	110	1957
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	451	6	223	1142	0	0	0	0	25	0	110	1957
#15 Los Carneros Road/Hollister Avenue													
Base	41	282	51	24	221	147	103	373	266	59	232	42	1841
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	41	282	51	24	221	147	103	373	266	59	232	42	1841
#17 Los Carneros Way/Hollister Avenue													
Base	0	0	0	260	0	25	20	519	0	0	572	70	1466
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	260	0	25	20	519	0	0	572	70	1466
#18 Fairview Avenue/Calle Real													
Base	258	427	158	52	465	39	20	71	422	178	100	28	2218
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	258	427	158	52	465	39	20	71	422	178	100	28	2218
#19 Fairview Avenue/Hollister Avenue													
Base	75	110	30	428	509	662	196	308	176	58	365	260	3177
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	75	110	30	428	509	662	196	308	176	58	365	260	3177
#24 La Patera Ln/Hollister Ave													
Base	0	0	0	66	0	42	53	510	0	0	719	135	1525
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	66	0	42	53	510	0	0	719	135	1525

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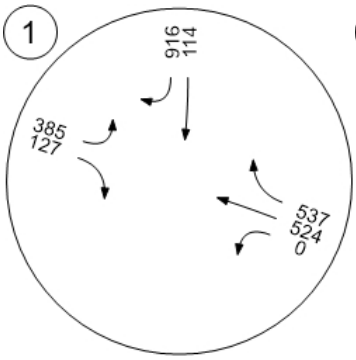
Marriott Residence Inn
Existing (2007) Conditions
AM Peak Hour

Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#29 Fairview Ave/US-101 NB Ramps													
Base	0	0	0	0	117	921	369	0	111	1	614	475	2608
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	117	921	369	0	111	1	614	475	2608
#51 Fairview Ave/US-101 SB Ramps													
Base	0	304	324	559	1091	0	151	2	308	0	0	0	2739
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	304	324	559	1091	0	151	2	308	0	0	0	2739
#360 Robin Hill/Hollister Ave													
Base	0	0	0	15	0	25	110	554	0	0	511	118	1333
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	15	0	25	110	554	0	0	511	118	1333

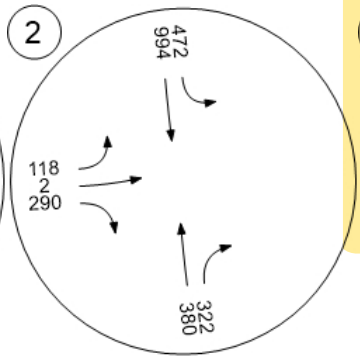
Traffic Volume - Base Volume



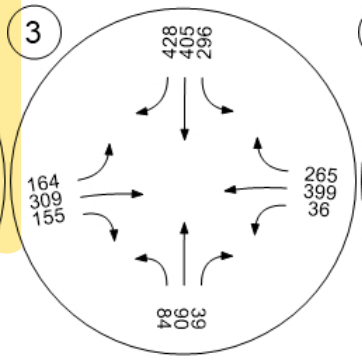
Fairvew Ave & US 101 Ramp



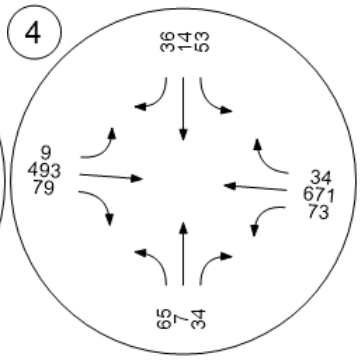
Fairview Ave & US 101 SB Ramp



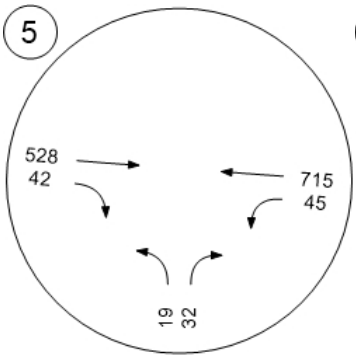
Hollister Ave & Fairview Ave



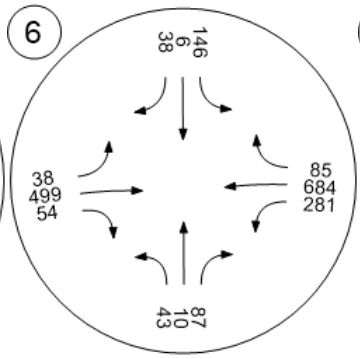
Hollister Ave & Pine Ave/Nectarine



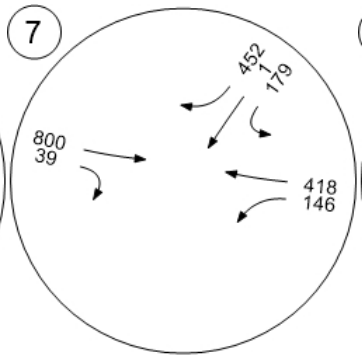
Hollister Ave & Rutherford St



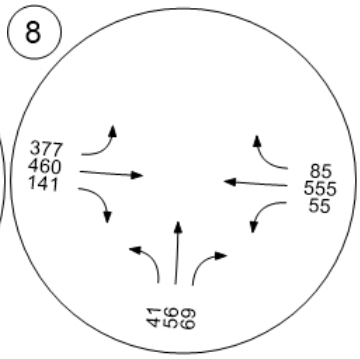
Hollister Ave & Kellogg Ave



Hollister Ave & SR 217 WB Ramps



Hollister Ave & SR 217 EB Off Ramp



Marriott Residence Inn
Existing With Project
PM Peak Hour

Turning Movement Report
Proj PM

Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#3 Storke Road/Hollister Avenue													
Base	76	625	144	139	531	759	659	340	58	226	484	464	4505
Added	0	0	0	1	0	0	0	1	0	0	2	1	5
Total	76	625	144	140	531	759	659	341	58	226	486	465	4510
#9 Los Carneros Road/US-101 NB Ramps													
Base	255	571	0	0	289	148	0	0	0	447	1	47	1758
Added	4	0	0	0	0	0	0	0	0	0	0	0	4
Total	259	571	0	0	289	148	0	0	0	447	1	47	1762
#10 Los Carneros Road/US-101 SB Ramps													
Base	0	714	1022	65	747	0	78	2	32	0	0	0	2660
Added	0	4	0	0	0	0	0	0	3	0	0	0	7
Total	0	718	1022	65	747	0	78	2	35	0	0	0	2667
#11 Los Carneros Road/Calle Koral													
Base	0	1497	28	94	629	0	0	0	0	10	0	285	2543
Added	0	0	0	3	0	0	0	0	0	0	0	4	7
Total	0	1497	28	97	629	0	0	0	0	10	0	289	2550
#15 Los Carneros Road/Hollister Avenue													
Base	284	595	89	61	480	94	204	339	97	122	556	35	2956
Added	0	0	3	1	0	0	0	4	0	4	5	2	19
Total	284	595	92	62	480	94	204	343	97	126	561	37	2975
#17 Los Carneros Way/Hollister Avenue													
Base	0	0	0	72	0	21	61	758	0	0	921	310	2143
Added	0	0	0	3	0	0	0	8	0	0	11	4	26
Total	0	0	0	75	0	21	61	766	0	0	932	314	2169
#18 Fairview Avenue/Calle Real													
Base	442	420	504	112	366	38	34	254	263	318	238	55	3044
Added	1	1	3	0	1	0	0	0	1	2	0	0	9
Total	443	421	507	112	367	38	34	254	264	320	238	55	3053
#19 Fairview Avenue/Hollister Avenue													
Base	141	431	84	250	189	244	641	499	135	57	461	401	3533
Added	3	0	0	0	0	10	14	4	4	0	3	0	38
Total	144	431	84	250	189	254	655	503	139	57	464	401	3571
#24 La Patera Ln/Hollister Ave													
Base	0	0	0	275	0	98	42	901	0	0	891	73	2280
Added	0	0	0	0	0	4	0	22	0	0	16	0	42
Total	0	0	0	275	0	102	42	923	0	0	907	73	2322

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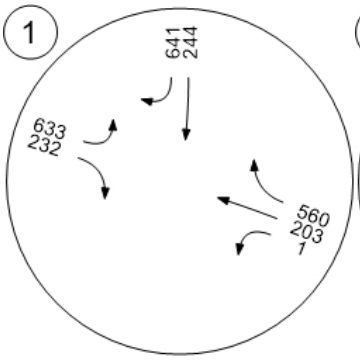
Marriott Residence Inn
Existing With Project
PM Peak Hour

Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#29 Fairview Ave/US-101 NB Ramps													
Base	0	0	0	0	274	671	852	0	253	1	256	657	2964
Added	0	0	0	0	0	4	5	0	0	0	7	0	16
Total	0	0	0	0	274	675	857	0	253	1	263	657	2980
#51 Fairview Ave/US-101 SB Ramps													
Base	0	699	707	383	596	0	196	2	143	0	0	0	2726
Added	0	5	10	0	10	0	0	0	0	0	0	0	25
Total	0	704	717	383	606	0	196	2	143	0	0	0	2751
#360 Robin Hill/Hollister Ave													
Base	0	0	0	89	0	145	29	657	0	0	774	20	1714
Added	0	0	0	22	0	0	0	11	0	0	15	16	64
Total	0	0	0	111	0	145	29	668	0	0	789	36	1778

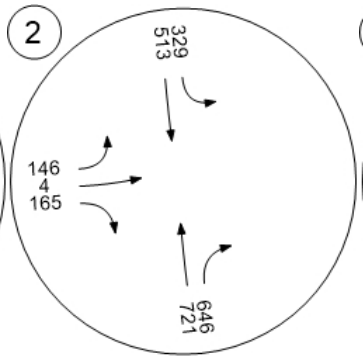
Traffic Volume - Base Volume



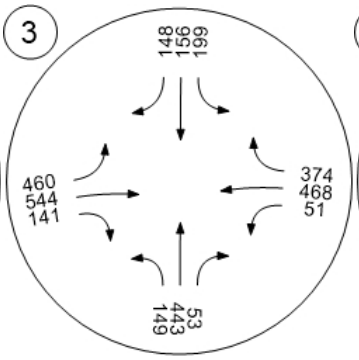
Fairvew Ave & US 101 Ramp



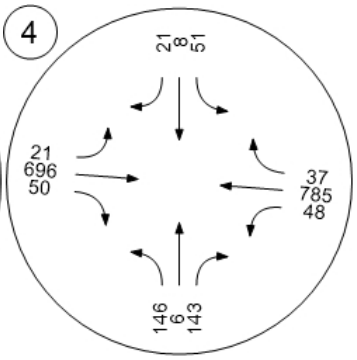
Fairview Ave & US 101 SB Ramp



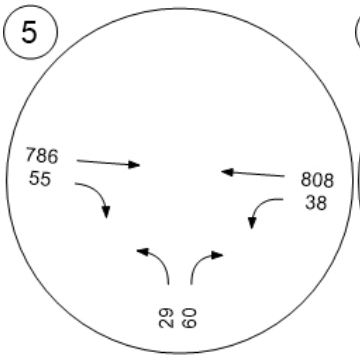
Hollister Ave & Fairview Ave



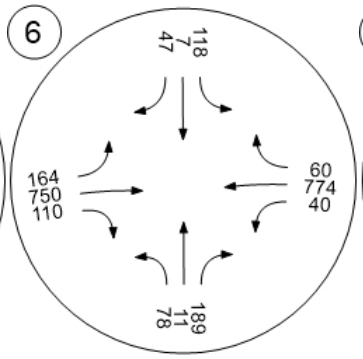
Hollister Ave & Pine Ave/Nectarine



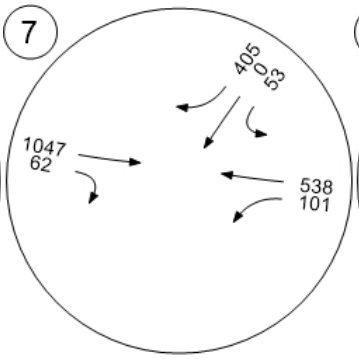
Hollister Ave & Rutherford St



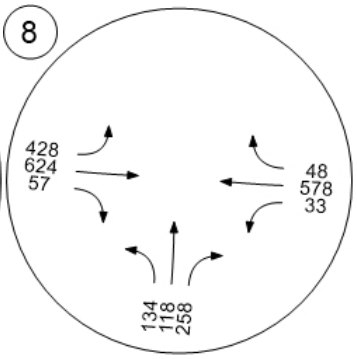
Hollister Ave & Kellogg Ave



Hollister Ave & SR 217 WB Ramps



Hollister Ave & SR 217 EB Off Ramp



APPENDIX B

ICU AND LEVELS OF SERVICE EXPLANATION
ICU DATA WORKSHEETS – WEEKDAY AM AND PM PEAK HOURS
CITY OF GOLETA

INTERSECTION CAPACITY UTILIZATION (ICU) DESCRIPTION

Level of Service is a term used to describe prevailing conditions and their effect on traffic. Broadly interpreted, the Levels of Service concept denotes any one of a number of differing combinations of operating conditions which may occur as a roadway is accommodating various traffic volumes. Level of Service is a qualitative measure of the effect of such factors as travel speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience.

Six Levels of Service, A through F, have been defined in the 1965 *Highway Capacity Manual*, published by the Transportation Research Board. Level of Service A describes a condition of free flow, with low traffic volumes and relatively high speeds, while Level of Service F describes forced traffic flow at low speeds with jammed conditions and queues which cannot clear during the green phases.

The Intersection Capacity Utilization (ICU) method of intersection capacity analysis has been used in our studies. It directly relates traffic demand and available capacity for key intersection movements, regardless of present signal timing, The capacity per hour of green time for each approach is calculated based on the methods of the *Highway Capacity Manual*. The proportion of total signal time needed by each key movement is determined and compared to the total time available (100 percent of the hour). The result of summing the requirements of the conflicting key movements plus an allowance for clearance times is expressed as a decimal fraction. Conflicting key traffic movements are those opposing movements whose combined green time requirements are greatest.

The resulting ICU represents the proportion of the total hour required to accommodate intersection demand volumes if the key conflicting traffic movements are operating at capacity. Other movements may be operating near capacity, or may be operating at significantly better levels. The ICU may be translated to a Level of Service as tabulated below.

The Levels of Service (abbreviated from the *Highway Capacity Manual*) are listed here with their corresponding ICU and Load Factor equivalents. Load Factor is that proportion of the signal cycles during the peak hour which are fully loaded; i.e. when all of the vehicles waiting at the beginning of green are not able to clear on that green phase.

Intersection Capacity Utilization Characteristics

Level of Service	Load Factor	Equivalent ICU
A	0.0	0.00 - 0.60
B	0.0 - 0.1	0.61 - 0.70
C	0.1 - 0.3	0.71 - 0.80
D	0.3 - 0.7	0.81 - 0.90
E	0.7 - 1.0	0.91 - 1.00
F	Not Applicable	Not Applicable

SERVICE LEVEL A
There are no loaded cycles and few are even close to loaded at this service level. No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication.

SERVICE LEVEL B
This level represents stable operation where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.

SERVICE LEVEL C
At this level stable operation continues. Loading is still intermittent but more frequent than at Level B. Occasionally drivers may have to wait through more than one red signal indication and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.

SERVICE LEVEL D
This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak hour, but enough cycles with lower demand occur to permit periodic clearance of queues, thus preventing excessive backups. Drivers frequently have to wait through more than one red signal. This level is the lower limit of acceptable operation to most drivers.

SERVICE LEVEL E
This represents near capacity and capacity operation. At capacity (ICU = 1.0) it represents the most vehicles that the particular intersection can accommodate. However, full utilization of every signal cycle is seldom attained no matter how great the demand. At this level all drivers wait through more than one red signal, and frequently through several.

SERVICE LEVEL F
Jammed conditions. Traffic backed up from a downstream location on one of the street restricts or prevents movement of traffic through the intersection under consideration.

LINSCOTT, LAW & GREENSPAN, ENGINEERS
20931 Burbank Boulevard, Suite C, Woodland Hills, CA
(818) 835-8648 Fax (818) 835-8649

INTERSECTION CAPACITY UTILIZATION

Los Carneros Road @ Hollister Avenue

N-S St: Los Carneros Road
E-W St: Hollister Avenue
Project: 5-20-0492-1 Goleta Train Depot
File: ICU-3

Peak hr: AM
Annual Growth: 2%

Date: 08/06/2020
Date of Count: 2020
Projection Year: 2024

	2020 EXIST. TRAFFIC				2020 W/PROJECT SITE TRAFFIC				2024 WITHOUT PROJECT				2024 W/PROJECT			
	1	2	V/C		Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio		Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	41	3200	0.013		0	41	3200	0.013	0	44	3200	0.014	0	44	3200	0.014
Nb Thru	282	3200	0.088	*	0	282	3200	0.088	* 0	305	3200	0.095	* 0	305	3200	0.095 *
Nb Right	51	1600	0.032		3	54	1600	0.034	0	55	1600	0.034	3	58	1600	0.036
Sb Left	24	1600	0.015	*	4	28	1600	0.018	* 0	26	1600	0.016	* 4	30	1600	0.019 *
Sb Thru	221	3200	0.069		0	221	3200	0.069	0	239	3200	0.075	0	239	3200	0.075
Sb Right [3]	147	1600	0.060		0	147	1600	0.060	0	159	1600	0.064	0	159	1600	0.064
Eb Left	103	3200	0.032		0	103	3200	0.032	0	111	3200	0.035	0	111	3200	0.035
Eb Thru	373	3200	0.117		6	379	3200	0.118	0	404	3200	0.126	6	410	3200	0.128
Eb Right	266	1600	0.166	*	0	266	1600	0.166	* 0	288	1600	0.180	* 0	288	1600	0.180 *
Wb Left	59	1600	0.037	*	1	60	1600	0.038	* 0	64	1600	0.040	* 1	65	1600	0.040 *
Wb Thru	232	3200	0.086		2	234	3200	0.087	0	251	3200	0.092	2	253	3200	0.093
Wb Right	42	0	-		1	43	0	-	0	45	0	-	1	46	0	-
Yellow Allowance:			0.100	*				0.100	*			0.100	*			0.100 *
ICU			0.406					0.409				0.431				0.434
LOS			A					A				A				A

** Key conflicting movement as a part of ICU*
1 Counts conducted by. City of Goleta
2 Capacity expressed in veh/hour of green
3 The southbound right-turn lane has an overlapping phase with eastbound left-turn phase.

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INTERSECTION CAPACITY UTILIZATION

Los Carneros Road @ Hollister Avenue

N-S St: Los Carneros Road
E-W St: Hollister Avenue
Project: 5-20-0492-1 Goleta Train Depot
File: ICU-3

Peak hr: PM
Annual Growth: 2%

Date: 08/06/2020
Date of Count: 2020
Projection Year: 2024

	2020 EXIST. TRAFFIC			2020 W/PROJECT SITE TRAFFIC				2024 WITHOUT PROJECT				2024 W/PROJECT			
	1	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	284	3200	0.089 *	0	284	3200	0.089 *	0	307	3200	0.096 *	0	307	3200	0.096 *
Nb Thru	595	3200	0.186	0	595	3200	0.186	0	644	3200	0.201	0	644	3200	0.201
Nb Right	89	1600	0.056	1	90	1600	0.056	0	96	1600	0.060	1	97	1600	0.061
Sb Left	61	1600	0.038	1	62	1600	0.039	0	66	1600	0.041	1	67	1600	0.042
Sb Thru	480	3200	0.150 *	0	480	3200	0.150 *	0	520	3200	0.163 *	0	520	3200	0.163 *
Sb Right [3]	94	1600	0.000	0	94	1600	0.000	0	102	1600	0.000	0	102	1600	0.000
Eb Left	204	3200	0.064 *	0	204	3200	0.064 *	0	221	3200	0.069 *	0	221	3200	0.069 *
Eb Thru	339	3200	0.106	2	341	3200	0.107	0	367	3200	0.115	2	369	3200	0.115
Eb Right	97	1600	0.061	0	97	1600	0.061	0	105	1600	0.065	0	105	1600	0.065
Wb Left	122	1600	0.076	3	125	1600	0.078	0	132	1600	0.082	3	135	1600	0.084
Wb Thru	556	3200	0.185 *	6	562	3200	0.188 *	0	602	3200	0.200 *	6	608	3200	0.203 *
Wb Right	35	0	-	3	38	0	-	0	38	0	-	3	41	0	-
Yellow Allowance:			0.100 *				0.100 *				0.100 *				0.100 *
ICU			0.587				0.590				0.627				0.630
LOS			A				A				B				B

** Key conflicting movement as a part of ICU*
1 Counts conducted by. City of Goleta
2 Capacity expressed in veh/hour of green
3 The southbound right-turn lane has an overlapping phase with eastbound left-turn phase.

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INTERSECTION CAPACITY UTILIZATION

La Patera Lane @ Hollister Avenue

N-S St: La Patera Lane
E-W St: Hollister Avenue
Project: 5-19-0492-1 Goleta Train Depot
File: ICU-4

Peak hr: AM
Annual Growth: 2%

Date: 08/06/2020
Date of Count: 2020
Projection Year: 2024

	2020 EXIST. TRAFFIC				2020 W/PROJECT SITE TRAFFIC				2024 WITHOUT PROJECT				2024 W/PROJECT			
	1	2	V/C		Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio		Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	0	0	0.000		0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Nb Thru	0	0	0.000		0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Nb Right	0	0	-		0	0	0	-	0	0	0	-	0	0	0	-
Sb Left	66	1600	0.041		4	70	1600	0.044	0	71	1600	0.045	4	75	1600	0.047
Sb Thru	0	0	0.000		0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Sb Right	42	1600	0.026		4	46	1600	0.029	0	45	1600	0.028	4	49	1600	0.031
Eb Left	53	1600	0.033	*	13	66	1600	0.041	*	0	57	1600	0.036	*	13	70	1600	0.044	*
Eb Thru	510	3200	0.159		0	510	3200	0.159		0	552	3200	0.173		0	552	3200	0.173	
Eb Right	0	0	-		0	0	0	-		0	0	0	-		0	0	0	-	
Wb Left	0	0	0.000		0	0	0	0.000		0	0	0	0.000		0	0	0	0.000	
Wb Thru	719	3200	0.267	*	0	719	3200	0.272	*	0	778	3200	0.289	*	0	778	3200	0.293	*
Wb Right	135	0	-		15	150	0	-		0	146	0	-		15	161	0	-	
Yellow Allowance:			0.100	*				0.100	*				0.100	*				0.100	*
ICU			0.441					0.457					0.469					0.484	
LOS			A					A					A					A	

** Key conflicting movement as a part of ICU*
1 Counts conducted by. City of Goleta
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INTERSECTION CAPACITY UTILIZATION

La Patera Lane @ Hollister Avenue

N-S St: La Patera Lane
E-W St: Hollister Avenue
Project: 5-19-0492-1 Goleta Train Depot
File: ICU-4

Peak hr: PM
Annual Growth: 2%

Date: 08/06/2020
Date of Count: 2020
Projection Year: 2024

	2020 EXIST. TRAFFIC			2020 W/PROJECT SITE TRAFFIC				2024 WITHOUT PROJECT				2024 W/PROJECT			
	1	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Nb Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Nb Right	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Sb Left	275	1600	0.172	14	289	1600	0.181	0	298	1600	0.186	14	312	1600	0.195
Sb Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Sb Right	98	1600	0.061	12	110	1600	0.069	0	106	1600	0.066	12	118	1600	0.074
Eb Left	42	1600	0.026 *	5	47	1600	0.029 *	0	45	1600	0.028 *	5	50	1600	0.031 *
Eb Thru	901	3200	0.282	0	901	3200	0.282	0	975	3200	0.305	0	975	3200	0.305
Eb Right	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Wb Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Wb Thru	891	3200	0.301 *	0	891	3200	0.303 *	0	964	3200	0.326 *	0	964	3200	0.327 *
Wb Right	73	0	-	5	78	0	-	0	79	0	-	5	84	0	-
Yellow Allowance:			0.100 *				0.100 *				0.100 *				0.100 *
ICU			0.599				0.613				0.640				0.654
LOS			A				B				B				B

** Key conflicting movement as a part of ICU*
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INTERSECTION CAPACITY UTILIZATION

Fairview Avenue @ Hollister Avenue

N-S St: Fairview Avenue
E-W St: Hollister Avenue
Project: 5-20-0492-1 Goleta Train Depot
File: ICU-7

Peak hr: AM
Annual Growth: 2%

Date: 08/06/2020
Date of Count: 2020
Projection Year: 2024

	2020 EXIST. TRAFFIC			2020 W/PROJECT SITE TRAFFIC				2024 WITHOUT PROJECT				2024 W/PROJECT			
	1	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	84	1600	0.053 *	2	86	1600	0.054 *	0	91	1600	0.057 *	2	93	1600	0.058 *
Nb Thru	90	3200	0.040	0	90	3200	0.040	0	97	3200	0.044	0	97	3200	0.044
Nb Right	39	0	-	0	39	0	-	0	42	0	-	0	42	0	-
Sb Left	296	3200	0.093	0	296	3200	0.093	0	320	3200	0.100	0	320	3200	0.100
Sb Thru	405	3200	0.127	0	405	3200	0.127	0	438	3200	0.137	0	438	3200	0.137
Sb Right [3]	428	1600	0.216 *	5	433	1600	0.219 *	0	463	1600	0.234 *	5	468	1600	0.237 *
Eb Left	164	3200	0.051 *	1	165	3200	0.052 *	0	178	3200	0.056 *	1	179	3200	0.056 *
Eb Thru	309	3200	0.097	2	311	3200	0.097	0	334	3200	0.104	2	336	3200	0.105
Eb Right	155	1600	0.097	1	156	1600	0.098	0	168	1600	0.105	1	169	1600	0.106
Wb Left	36	1600	0.023	0	36	1600	0.023	0	39	1600	0.024	0	39	1600	0.024
Wb Thru	399	3200	0.125 *	8	407	3200	0.127 *	0	432	3200	0.135 *	8	440	3200	0.138 *
Wb Right [4]	265	1600	0.073	0	265	1600	0.073	0	287	1600	0.079	0	287	1600	0.079
Yellow Allowance:			0.100 *				0.100 *				0.100 *				0.100 *
ICU			0.545				0.552				0.581				0.588
LOS			A				A				A				A

* *Key conflicting movement as a part of ICU*
1 *Counts conducted by.* City of Goleta
2 *Capacity expressed in veh/hour of green*
3 *The southbound right-turn lane has an overlapping phase with eastbound left-turn phase.*
4 *The westbound right-turn lane has an overlapping phase with southbound left-turn phase.*

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INTERSECTION CAPACITY UTILIZATION

Fairview Avenue @ Hollister Avenue

N-S St: Fairview Avenue
E-W St: Hollister Avenue
Project: 5-20-0492-1 Goleta Train Depot
File: ICU-7

Peak hr: PM
Annual Growth: 2%

Date: 08/06/2020
Date of Count: 2020
Projection Year: 2024

	2020 EXIST. TRAFFIC			2020 W/PROJECT SITE TRAFFIC				2024 WITHOUT PROJECT				2024 W/PROJECT			
	1	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	149	1600	0.093	1	150	1600	0.094	0	161	1600	0.101	1	162	1600	0.101
Nb Thru	443	3200	0.155 *	0	443	3200	0.155 *	0	480	3200	0.168 *	0	480	3200	0.168 *
Nb Right	53	0	-	0	53	0	-	0	57	0	-	0	57	0	-
Sb Left	199	3200	0.062 *	0	199	3200	0.062 *	0	215	3200	0.067 *	0	215	3200	0.067 *
Sb Thru	156	3200	0.049	0	156	3200	0.049	0	169	3200	0.053	0	169	3200	0.053
Sb Right [3]	148	1600	0.000	2	150	1600	0.000	0	160	1600	0.000	2	162	1600	0.000
Eb Left	460	3200	0.144 *	5	465	3200	0.145 *	0	498	3200	0.156 *	5	503	3200	0.157 *
Eb Thru	544	3200	0.170	7	551	3200	0.172	0	589	3200	0.184	7	596	3200	0.186
Eb Right	141	1600	0.088	2	143	1600	0.089	0	153	1600	0.096	2	155	1600	0.097
Wb Left	51	1600	0.032	0	51	1600	0.032	0	55	1600	0.034	0	55	1600	0.034
Wb Thru	468	3200	0.146	3	471	3200	0.147	0	507	3200	0.158	3	510	3200	0.159
Wb Right [4]	374	1600	0.172 *	0	374	1600	0.172 *	0	405	1600	0.186 *	0	405	1600	0.186 *
Yellow Allowance:			0.100 *				0.100 *				0.100 *				0.100 *
ICU			0.633				0.634				0.677				0.678
LOS			B				B				B				B

* *Key conflicting movement as a part of ICU*
1 *Counts conducted by.* City of Goleta
2 *Capacity expressed in veh/hour of green*
3 *The southbound right-turn lane has an overlapping phase with eastbound left-turn phase.*
4 *The westbound right-turn lane has an overlapping phase with southbound left-turn phase.*

APPENDIX C

HCM AND LEVELS OF SERVICE EXPLANATION
HCM DATA WORKSHEETS – WEEKDAY AM AND PM PEAK HOURS
STATE OF CALIFORNIA (CALTRANS)

LEVEL OF SERVICE FOR SIGNALIZED INTERSECTIONS

In the *Highway Capacity Manual (HCM)*, published by the Transportation Research Board, 2000, level of service for signalized intersections is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, geometrics, traffic, and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions: in the absence of traffic control, in the absence of geometric delay, in the absence of incidents, and when there are no other vehicles on the road. Only the portion of total delay attributed to the control facility is quantified. This delay is called *control delay*. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay.

Level of Service criteria for traffic signals are stated in terms of the average control delay per vehicle. Delay is a complex measure and is dependent on a number of variables, including the quality of progression, the cycle length, the green ratio, and the *v/c* ratio for the lane group in question.

Level of Service Criteria for Signalized Intersections

Level of Service	Control Delay (Sec/Veh)
A	≤ 10
B	> 10 and ≤ 20
C	> 20 and ≤ 35
D	> 35 and ≤ 55
E	> 55 and ≤ 80
F	> 80

Level of Service (LOS) values are used to describe intersection operations with service levels varying from LOS A (free flow) to LOS F (jammed condition). The following descriptions summarize *HCM* criteria for each level of service:

LOS A describes operations with very low control delay, up to 10 seconds per vehicle. This level of service occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay values.

LOS B describes operations with control delay greater than 10 and up to 20 seconds per vehicle. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of delay.

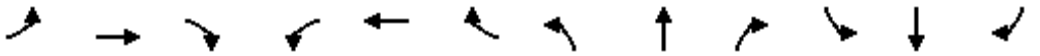
LOS C describes operations with control delay greater than 20 and up to 35 seconds per vehicle. These higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.

LOS D describes operations with control delay greater than 35 and up to 55 seconds per vehicle. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high *v/c* ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

LOS E describes operations with control delay greater than 55 and up to 80 seconds per vehicle. This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high *v/c* ratios. Individual cycle failures are frequent occurrences.

LOS F describes operations with control delay in excess of 80 seconds per vehicle. This level, considered to be unacceptable to most drivers, often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the lane groups. It may also occur at high *v/c* ratios with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors to such delay levels.

HCM 6th Signalized Intersection Summary
1: Los Carneros Rd & US 101 NB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	773	5	62	25	321	0	0	442	129
Future Volume (veh/h)	0	0	0	773	5	62	25	321	0	0	442	129
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				906	0	0	27	349	0	0	480	140
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				1114	585	0	51	2059	0	0	1350	391
Arrive On Green				0.31	0.00	0.00	0.03	0.58	0.00	0.00	0.50	0.50
Sat Flow, veh/h				3563	1870	0	1781	3647	0	0	2811	788
Grp Volume(v), veh/h				906	0	0	27	349	0	0	313	307
Grp Sat Flow(s),veh/h/ln				1781	1870	0	1781	1777	0	0	1777	1729
Q Serve(g_s), s				17.4	0.0	0.0	1.1	3.4	0.0	0.0	8.0	8.1
Cycle Q Clear(g_c), s				17.4	0.0	0.0	1.1	3.4	0.0	0.0	8.0	8.1
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.46
Lane Grp Cap(c), veh/h				1114	585	0	51	2059	0	0	883	859
V/C Ratio(X)				0.81	0.00	0.00	0.53	0.17	0.00	0.00	0.35	0.36
Avail Cap(c_a), veh/h				2352	1235	0	168	2059	0	0	883	859
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				23.5	0.0	0.0	35.5	7.3	0.0	0.0	11.4	11.4
Incr Delay (d2), s/veh				1.5	0.0	0.0	8.1	0.2	0.0	0.0	1.1	1.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				11.4	0.0	0.0	1.0	2.0	0.0	0.0	5.4	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				25.0	0.0	0.0	43.7	7.5	0.0	0.0	12.5	12.6
LnGrp LOS				C	A	A	D	A	A	A	B	B
Approach Vol, veh/h					906			376			620	
Approach Delay, s/veh					25.0			10.1			12.6	
Approach LOS					C			B			B	

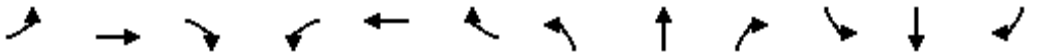
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	6.1	40.9		27.2		47.0						
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0						
Max Green Setting (Gmax), s	7.0	32.0		49.0		43.0						
Max Q Clear Time (g_c+I1), s	3.1	10.1		19.4		5.4						
Green Ext Time (p_c), s	0.0	3.8		3.8		2.4						

Intersection Summary		
HCM 6th Ctrl Delay		18.0
HCM 6th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
1: Los Carneros Rd & US 101 NB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	447	1	47	255	571	0	0	289	148
Future Volume (veh/h)	0	0	0	447	1	47	255	571	0	0	289	148
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				534	0	0	277	621	0	0	314	161
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				674	354	0	325	2543	0	0	1113	558
Arrive On Green				0.19	0.00	0.00	0.18	0.72	0.00	0.00	0.49	0.49
Sat Flow, veh/h				3563	1870	0	1781	3647	0	0	2385	1149
Grp Volume(v), veh/h				534	0	0	277	621	0	0	242	233
Grp Sat Flow(s),veh/h/ln				1781	1870	0	1781	1777	0	0	1777	1664
Q Serve(g_s), s				12.0	0.0	0.0	12.6	5.1	0.0	0.0	6.8	7.0
Cycle Q Clear(g_c), s				12.0	0.0	0.0	12.6	5.1	0.0	0.0	6.8	7.0
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.69
Lane Grp Cap(c), veh/h				674	354	0	325	2543	0	0	863	808
V/C Ratio(X)				0.79	0.00	0.00	0.85	0.24	0.00	0.00	0.28	0.29
Avail Cap(c_a), veh/h				1359	714	0	659	2543	0	0	863	808
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				32.4	0.0	0.0	33.2	4.1	0.0	0.0	12.8	12.9
Incr Delay (d2), s/veh				2.2	0.0	0.0	6.3	0.2	0.0	0.0	0.8	0.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				9.0	0.0	0.0	9.5	2.2	0.0	0.0	4.8	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				34.6	0.0	0.0	39.5	4.3	0.0	0.0	13.7	13.8
LnGrp LOS				C	A	A	D	A	A	A	B	B
Approach Vol, veh/h					534			898			475	
Approach Delay, s/veh					34.6			15.2			13.7	
Approach LOS					C			B			B	

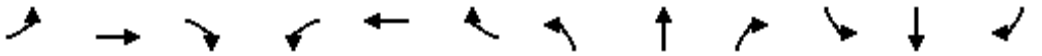
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.3	44.7		19.9		64.0						
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0						
Max Green Setting (Gmax), s	31.0	25.0		32.0		60.0						
Max Q Clear Time (g_c+I1), s	14.6	9.0		14.0		7.1						
Green Ext Time (p_c), s	0.7	2.5		1.9		4.3						

Intersection Summary		
HCM 6th Ctrl Delay		20.3
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
2: US 101 SB Ramps & Los Carneros Rd

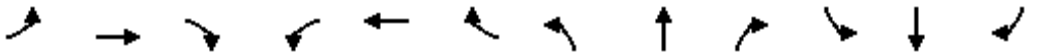


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	3	226	0	0	0	0	141	368	93	1144	0
Future Volume (veh/h)	123	3	226	0	0	0	0	141	368	93	1144	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	134	3	246				0	153	400	101	1243	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	329	7	299				0	2128	949	131	2553	0
Arrive On Green	0.19	0.19	0.19				0.00	0.60	0.60	0.07	0.72	0.00
Sat Flow, veh/h	1744	39	1585				0	3647	1585	1781	3647	0
Grp Volume(v), veh/h	137	0	246				0	153	400	101	1243	0
Grp Sat Flow(s),veh/h/ln	1783	0	1585				0	1777	1585	1781	1777	0
Q Serve(g_s), s	5.8	0.0	12.9				0.0	1.6	11.7	4.8	13.1	0.0
Cycle Q Clear(g_c), s	5.8	0.0	12.9				0.0	1.6	11.7	4.8	13.1	0.0
Prop In Lane	0.98		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	337	0	299				0	2128	949	131	2553	0
V/C Ratio(X)	0.41	0.00	0.82				0.00	0.07	0.42	0.77	0.49	0.00
Avail Cap(c_a), veh/h	620	0	551				0	2128	949	330	2553	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.8	0.0	33.6				0.0	7.3	9.3	39.3	5.3	0.0
Incr Delay (d2), s/veh	0.8	0.0	5.6				0.0	0.1	1.4	9.3	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.6	0.0	9.1				0.0	0.9	6.5	4.3	6.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.5	0.0	39.2				0.0	7.3	10.7	48.6	5.9	0.0
LnGrp LOS	C	A	D				A	A	B	D	A	A
Approach Vol, veh/h		383						553			1344	
Approach Delay, s/veh		36.5						9.7			9.1	
Approach LOS		D						A			A	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		66.0			10.3	55.7		20.3				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		62.0			16.0	42.0		30.0				
Max Q Clear Time (g_c+I1), s		15.1			6.8	13.7		14.9				
Green Ext Time (p_c), s		12.3			0.1	2.3		1.4				

Intersection Summary			
HCM 6th Ctrl Delay			13.9
HCM 6th LOS			B

HCM 6th Signalized Intersection Summary
2: US 101 SB Ramps & Los Carneros Rd

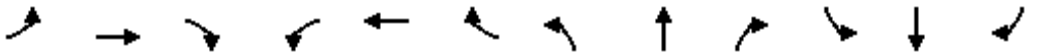


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	2	32	0	0	0	0	714	1022	65	747	0
Future Volume (veh/h)	78	2	32	0	0	0	0	714	1022	65	747	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	85	2	35				0	776	1111	71	812	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	124	3	112				0	2633	1174	91	2977	0
Arrive On Green	0.07	0.07	0.07				0.00	0.74	0.74	0.05	0.84	0.00
Sat Flow, veh/h	1742	41	1585				0	3647	1585	1781	3647	0
Grp Volume(v), veh/h	87	0	35				0	776	1111	71	812	0
Grp Sat Flow(s),veh/h/ln	1783	0	1585				0	1777	1585	1781	1777	0
Q Serve(g_s), s	4.2	0.0	1.8				0.0	6.3	53.2	3.5	4.2	0.0
Cycle Q Clear(g_c), s	4.2	0.0	1.8				0.0	6.3	53.2	3.5	4.2	0.0
Prop In Lane	0.98		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	126	0	112				0	2633	1174	91	2977	0
V/C Ratio(X)	0.69	0.00	0.31				0.00	0.29	0.95	0.78	0.27	0.00
Avail Cap(c_a), veh/h	379	0	337				0	2633	1174	142	2977	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.8	0.0	38.7				0.0	3.8	9.8	41.1	1.5	0.0
Incr Delay (d2), s/veh	6.5	0.0	1.6				0.0	0.3	16.2	13.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.7	0.0	1.4				0.0	2.6	22.0	3.3	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.2	0.0	40.2				0.0	4.1	26.0	54.2	1.7	0.0
LnGrp LOS	D	A	D				A	A	C	D	A	A
Approach Vol, veh/h		122						1887			883	
Approach Delay, s/veh		44.5						17.0			5.9	
Approach LOS		D						B			A	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		77.4			8.5	68.9		10.2				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		73.4			7.0	62.4		18.6				
Max Q Clear Time (g_c+I1), s		6.2			5.5	55.2		6.2				
Green Ext Time (p_c), s		6.7			0.0	5.2		0.4				

Intersection Summary												
HCM 6th Ctrl Delay			14.8									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
5: US 101 NB Ramps & Fairview Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	385	0	127	0	524	537	0	0	0	0	114	916
Future Volume (veh/h)	385	0	127	0	524	537	0	0	0	0	114	916
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	0	1870	0	1870	1870				0	1870	1870
Adj Flow Rate, veh/h	397	0	0	0	540	554				0	118	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	2	0	2	0	2	2				0	2	2
Cap, veh/h	694	0		0	939	796				0	0	
Arrive On Green	0.20	0.00	0.00	0.00	0.50	0.50				0.00	0.00	0.00
Sat Flow, veh/h	3456	397		0	1870	1585					0	
Grp Volume(v), veh/h	397	11.7		0	540	554					0.0	
Grp Sat Flow(s),veh/h/ln	1728	B		0	1870	1585						
Q Serve(g_s), s	3.1			0.0	6.1	8.1						
Cycle Q Clear(g_c), s	3.1			0.0	6.1	8.1						
Prop In Lane	1.00			0.00		1.00						
Lane Grp Cap(c), veh/h	694			0	939	796						
V/C Ratio(X)	0.57			0.00	0.58	0.70						
Avail Cap(c_a), veh/h	2066			0	939	796						
HCM Platoon Ratio	1.00			1.00	1.00	1.00						
Upstream Filter(I)	1.00			0.00	1.00	1.00						
Uniform Delay (d), s/veh	10.9			0.0	5.3	5.8						
Incr Delay (d2), s/veh	0.7			0.0	2.6	5.0						
Initial Q Delay(d3),s/veh	0.0			0.0	0.0	0.0						
%ile BackOfQ(95%),veh/ln	1.6			0.0	2.7	3.6						
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.7			0.0	7.8	10.8						
LnGrp LOS	B			A	A	B						
Approach Vol, veh/h					1094							
Approach Delay, s/veh					9.3							
Approach LOS					A							

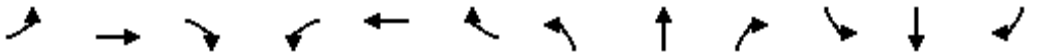
Timer - Assigned Phs	1	2
Phs Duration (G+Y+Rc), s	10.6	19.7
Change Period (Y+Rc), s	4.5	4.5
Max Green Setting (Gmax), s	18.1	15.2
Max Q Clear Time (g_c+I1), s	5.1	10.1
Green Ext Time (p_c), s	1.2	2.5

Intersection Summary	
HCM 6th Ctrl Delay	10.0
HCM 6th LOS	A

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
5: US 101 NB Ramps & Fairview Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	633	0	232	0	204	560	0	0	0	0	244	641
Future Volume (veh/h)	633	0	232	0	204	560	0	0	0	0	244	641
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	0	1870	0	1870	1870				0	1870	1870
Adj Flow Rate, veh/h	646	0	0	0	208	571				0	249	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	2	0	2	0	2	2				0	2	2
Cap, veh/h	983	0		0	817	692				0	0	
Arrive On Green	0.28	0.00	0.00	0.00	0.44	0.44				0.00	0.00	0.00
Sat Flow, veh/h	3456	646		0	1870	1585					0	
Grp Volume(v), veh/h	646	10.9		0	208	571					0.0	
Grp Sat Flow(s),veh/h/ln	1728	B		0	1870	1585						
Q Serve(g_s), s	5.3			0.0	2.3	10.2						
Cycle Q Clear(g_c), s	5.3			0.0	2.3	10.2						
Prop In Lane	1.00			0.00		1.00						
Lane Grp Cap(c), veh/h	983			0	817	692						
V/C Ratio(X)	0.66			0.00	0.25	0.82						
Avail Cap(c_a), veh/h	1937			0	817	692						
HCM Platoon Ratio	1.00			1.00	1.00	1.00						
Upstream Filter(I)	1.00			0.00	1.00	1.00						
Uniform Delay (d), s/veh	10.2			0.0	5.8	8.0						
Incr Delay (d2), s/veh	0.8			0.0	0.8	10.8						
Initial Q Delay(d3),s/veh	0.0			0.0	0.0	0.0						
%ile BackOfQ(95%),veh/ln	2.5			0.0	1.1	6.8						
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.9			0.0	6.5	18.8						
LnGrp LOS	B			A	A	B						
Approach Vol, veh/h					779							
Approach Delay, s/veh					15.5							
Approach LOS					B							

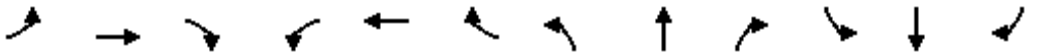
Timer - Assigned Phs	1	2
Phs Duration (G+Y+Rc), s	13.7	18.6
Change Period (Y+Rc), s	4.5	4.5
Max Green Setting (Gmax), s	18.1	14.1
Max Q Clear Time (g_c+I1), s	7.3	12.2
Green Ext Time (p_c), s	1.9	0.7

Intersection Summary	
HCM 6th Ctrl Delay	13.4
HCM 6th LOS	B

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
6: Fairview Ave & US 101 SB Ramps

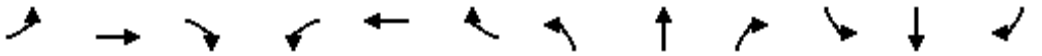


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	2	290	0	0	0	0	380	322	472	994	0
Future Volume (veh/h)	118	2	290	0	0	0	0	380	322	472	994	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	122	2	299				0	392	332	487	1025	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	416	7	376				0	1229	548	658	2174	0
Arrive On Green	0.24	0.24	0.24				0.00	0.35	0.35	0.19	0.61	0.00
Sat Flow, veh/h	1754	29	1585				0	3647	1585	3456	3647	0
Grp Volume(v), veh/h	124	0	299				0	392	332	487	1025	0
Grp Sat Flow(s),veh/h/ln	1783	0	1585				0	1777	1585	1728	1777	0
Q Serve(g_s), s	3.4	0.0	10.6				0.0	4.8	10.3	7.9	9.4	0.0
Cycle Q Clear(g_c), s	3.4	0.0	10.6				0.0	4.8	10.3	7.9	9.4	0.0
Prop In Lane	0.98		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	423	0	376				0	1229	548	658	2174	0
V/C Ratio(X)	0.29	0.00	0.79				0.00	0.32	0.61	0.74	0.47	0.00
Avail Cap(c_a), veh/h	920	0	818				0	1229	548	1286	2174	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.6	0.0	21.4				0.0	14.4	16.2	22.8	6.3	0.0
Incr Delay (d2), s/veh	0.4	0.0	3.8				0.0	0.7	4.9	1.7	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.4	0.0	7.0				0.0	3.3	7.2	5.5	4.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.0	0.0	25.2				0.0	15.0	21.1	24.4	7.1	0.0
LnGrp LOS	B	A	C				A	B	C	C	A	A
Approach Vol, veh/h		423						724			1512	
Approach Delay, s/veh		23.4						17.8			12.6	
Approach LOS		C						B			B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	15.9	25.1		18.7		41.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	22.2	9.8		30.8		36.5						
Max Q Clear Time (g_c+I1), s	9.9	12.3		12.6		11.4						
Green Ext Time (p_c), s	1.4	0.0		1.6		7.9						

Intersection Summary												
HCM 6th Ctrl Delay			15.8									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
6: Fairview Ave & US 101 SB Ramps

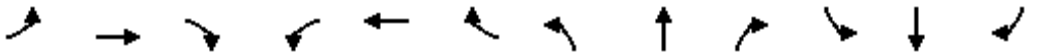


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	4	165	0	0	0	0	721	646	329	513	0
Future Volume (veh/h)	146	4	165	0	0	0	0	721	646	329	513	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	159	4	179				0	784	702	358	558	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	285	7	259				0	1619	722	513	2422	0
Arrive On Green	0.16	0.16	0.16				0.00	0.46	0.46	0.15	0.68	0.00
Sat Flow, veh/h	1740	44	1585				0	3647	1585	3456	3647	0
Grp Volume(v), veh/h	163	0	179				0	784	702	358	558	0
Grp Sat Flow(s),veh/h/ln	1783	0	1585				0	1777	1585	1728	1777	0
Q Serve(g_s), s	4.9	0.0	6.2				0.0	9.0	25.1	5.7	3.4	0.0
Cycle Q Clear(g_c), s	4.9	0.0	6.2				0.0	9.0	25.1	5.7	3.4	0.0
Prop In Lane	0.98		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	292	0	259				0	1619	722	513	2422	0
V/C Ratio(X)	0.56	0.00	0.69				0.00	0.48	0.97	0.70	0.23	0.00
Avail Cap(c_a), veh/h	792	0	704				0	1619	722	1082	2422	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.4	0.0	22.9				0.0	11.0	15.5	23.5	3.5	0.0
Incr Delay (d2), s/veh	1.7	0.0	3.3				0.0	1.0	27.3	1.7	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.6	0.0	4.2				0.0	5.6	18.5	4.0	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.0	0.0	26.2				0.0	12.1	42.8	25.2	3.7	0.0
LnGrp LOS	C	A	C				A	B	D	C	A	A
Approach Vol, veh/h		342						1486			916	
Approach Delay, s/veh		25.2						26.6			12.1	
Approach LOS		C						C			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.1	31.0		14.0		44.1
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5
Max Green Setting (Gmax), s	18.2	16.9		25.8		39.6
Max Q Clear Time (g_c+I1), s	7.7	27.1		8.2		5.4
Green Ext Time (p_c), s	0.9	0.0		1.4		4.0

Intersection Summary	
HCM 6th Ctrl Delay	21.6
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
1: Los Carneros Rd & US 101 NB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	773	5	62	26	321	0	0	444	129
Future Volume (veh/h)	0	0	0	773	5	62	26	321	0	0	444	129
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				906	0	0	28	349	0	0	483	140
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				1114	585	0	53	2059	0	0	1350	389
Arrive On Green				0.31	0.00	0.00	0.03	0.58	0.00	0.00	0.50	0.50
Sat Flow, veh/h				3563	1870	0	1781	3647	0	0	2816	784
Grp Volume(v), veh/h				906	0	0	28	349	0	0	314	309
Grp Sat Flow(s),veh/h/ln				1781	1870	0	1781	1777	0	0	1777	1729
Q Serve(g_s), s				17.4	0.0	0.0	1.2	3.4	0.0	0.0	8.0	8.1
Cycle Q Clear(g_c), s				17.4	0.0	0.0	1.2	3.4	0.0	0.0	8.0	8.1
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.45
Lane Grp Cap(c), veh/h				1114	585	0	53	2059	0	0	881	858
V/C Ratio(X)				0.81	0.00	0.00	0.53	0.17	0.00	0.00	0.36	0.36
Avail Cap(c_a), veh/h				2352	1235	0	168	2059	0	0	881	858
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				23.5	0.0	0.0	35.5	7.3	0.0	0.0	11.5	11.5
Incr Delay (d2), s/veh				1.5	0.0	0.0	8.1	0.2	0.0	0.0	1.1	1.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				11.4	0.0	0.0	1.1	1.9	0.0	0.0	5.5	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				25.0	0.0	0.0	43.6	7.5	0.0	0.0	12.6	12.7
LnGrp LOS				C	A	A	D	A	A	A	B	B
Approach Vol, veh/h					906			377			623	
Approach Delay, s/veh					25.0			10.1			12.6	
Approach LOS					C			B			B	

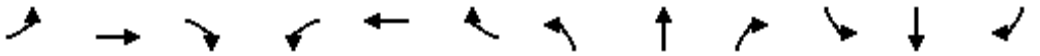
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	6.2	40.8		27.2		47.0						
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0						
Max Green Setting (Gmax), s	7.0	32.0		49.0		43.0						
Max Q Clear Time (g_c+I1), s	3.2	10.1		19.4		5.4						
Green Ext Time (p_c), s	0.0	3.8		3.8		2.2						

Intersection Summary		
HCM 6th Ctrl Delay		18.0
HCM 6th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
1: Los Carneros Rd & US 101 NB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	447	1	47	257	573	0	0	290	148
Future Volume (veh/h)	0	0	0	447	1	47	257	573	0	0	290	148
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				534	0	0	279	623	0	0	315	161
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				674	354	0	327	2543	0	0	1111	555
Arrive On Green				0.19	0.00	0.00	0.18	0.72	0.00	0.00	0.48	0.48
Sat Flow, veh/h				3563	1870	0	1781	3647	0	0	2388	1147
Grp Volume(v), veh/h				534	0	0	279	623	0	0	242	234
Grp Sat Flow(s),veh/h/ln				1781	1870	0	1781	1777	0	0	1777	1664
Q Serve(g_s), s				12.0	0.0	0.0	12.7	5.1	0.0	0.0	6.8	7.1
Cycle Q Clear(g_c), s				12.0	0.0	0.0	12.7	5.1	0.0	0.0	6.8	7.1
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.69
Lane Grp Cap(c), veh/h				674	354	0	327	2543	0	0	861	806
V/C Ratio(X)				0.79	0.00	0.00	0.85	0.25	0.00	0.00	0.28	0.29
Avail Cap(c_a), veh/h				1359	714	0	659	2543	0	0	861	806
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				32.4	0.0	0.0	33.1	4.1	0.0	0.0	12.9	13.0
Incr Delay (d2), s/veh				2.2	0.0	0.0	6.3	0.2	0.0	0.0	0.8	0.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				9.0	0.0	0.0	9.6	2.2	0.0	0.0	4.8	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				34.6	0.0	0.0	39.5	4.3	0.0	0.0	13.7	13.9
LnGrp LOS				C	A	A	D	A	A	A	B	B
Approach Vol, veh/h					534			902			476	
Approach Delay, s/veh					34.6			15.2			13.8	
Approach LOS					C			B			B	

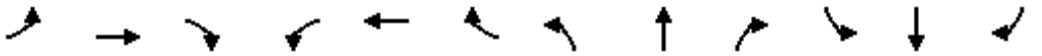
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.4	44.6		19.9		64.0						
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0						
Max Green Setting (Gmax), s	31.0	25.0		32.0		60.0						
Max Q Clear Time (g_c+I1), s	14.7	9.1		14.0		7.1						
Green Ext Time (p_c), s	0.7	2.5		1.9		4.3						

Intersection Summary		
HCM 6th Ctrl Delay		20.3
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
2: US 101 SB Ramps & Los Carneros Rd

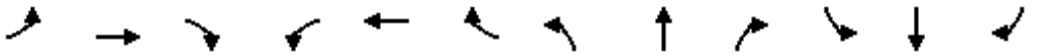


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	3	228	0	0	0	0	142	368	93	1146	0
Future Volume (veh/h)	123	3	228	0	0	0	0	142	368	93	1146	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	134	3	248				0	154	400	101	1246	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	331	7	301				0	2124	948	131	2550	0
Arrive On Green	0.19	0.19	0.19				0.00	0.60	0.60	0.07	0.72	0.00
Sat Flow, veh/h	1744	39	1585				0	3647	1585	1781	3647	0
Grp Volume(v), veh/h	137	0	248				0	154	400	101	1246	0
Grp Sat Flow(s),veh/h/ln	1783	0	1585				0	1777	1585	1781	1777	0
Q Serve(g_s), s	5.8	0.0	13.0				0.0	1.6	11.7	4.8	13.2	0.0
Cycle Q Clear(g_c), s	5.8	0.0	13.0				0.0	1.6	11.7	4.8	13.2	0.0
Prop In Lane	0.98		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	339	0	301				0	2124	948	131	2550	0
V/C Ratio(X)	0.40	0.00	0.82				0.00	0.07	0.42	0.77	0.49	0.00
Avail Cap(c_a), veh/h	619	0	550				0	2124	948	350	2550	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.7	0.0	33.6				0.0	7.3	9.3	39.3	5.3	0.0
Incr Delay (d2), s/veh	0.8	0.0	5.6				0.0	0.1	1.4	9.3	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.5	0.0	9.1				0.0	0.9	6.5	4.3	6.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.5	0.0	39.2				0.0	7.4	10.7	48.6	6.0	0.0
LnGrp LOS	C	A	D				A	A	B	D	A	A
Approach Vol, veh/h		385						554			1347	
Approach Delay, s/veh		36.5						9.8			9.2	
Approach LOS		D						A			A	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		66.0			10.3	55.7		20.4				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		62.0			17.0	41.0		30.0				
Max Q Clear Time (g_c+I1), s		15.2			6.8	13.7		15.0				
Green Ext Time (p_c), s		12.3			0.1	2.3		1.4				

Intersection Summary												
HCM 6th Ctrl Delay			13.9									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
2: US 101 SB Ramps & Los Carneros Rd

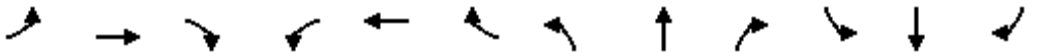


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	2	33	0	0	0	0	717	1022	65	748	0
Future Volume (veh/h)	78	2	33	0	0	0	0	717	1022	65	748	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	85	2	36				0	779	1111	71	813	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	124	3	113				0	2632	1174	91	2977	0
Arrive On Green	0.07	0.07	0.07				0.00	0.74	0.74	0.05	0.84	0.00
Sat Flow, veh/h	1742	41	1585				0	3647	1585	1781	3647	0
Grp Volume(v), veh/h	87	0	36				0	779	1111	71	813	0
Grp Sat Flow(s),veh/h/ln	1783	0	1585				0	1777	1585	1781	1777	0
Q Serve(g_s), s	4.2	0.0	1.9				0.0	6.4	53.2	3.5	4.2	0.0
Cycle Q Clear(g_c), s	4.2	0.0	1.9				0.0	6.4	53.2	3.5	4.2	0.0
Prop In Lane	0.98		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	127	0	113				0	2632	1174	91	2977	0
V/C Ratio(X)	0.69	0.00	0.32				0.00	0.30	0.95	0.78	0.27	0.00
Avail Cap(c_a), veh/h	379	0	336				0	2632	1174	142	2977	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.7	0.0	38.7				0.0	3.8	9.8	41.1	1.5	0.0
Incr Delay (d2), s/veh	6.4	0.0	1.6				0.0	0.3	16.2	13.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.7	0.0	1.4				0.0	2.7	22.0	3.3	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.2	0.0	40.3				0.0	4.1	26.0	54.2	1.7	0.0
LnGrp LOS	D	A	D				A	A	C	D	A	A
Approach Vol, veh/h		123						1890			884	
Approach Delay, s/veh		44.5						17.0			5.9	
Approach LOS		D						B			A	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		77.4			8.5	68.9		10.2				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		73.4			7.0	62.4		18.6				
Max Q Clear Time (g_c+I1), s		6.2			5.5	55.2		6.2				
Green Ext Time (p_c), s		6.7			0.0	5.2		0.4				

Intersection Summary												
HCM 6th Ctrl Delay			14.8									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
5: US 101 NB Ramps & Fairview Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	386	0	127	0	526	537	0	0	0	0	117	916
Future Volume (veh/h)	386	0	127	0	526	537	0	0	0	0	117	916
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	0	1870	0	1870	1870				0	1870	1870
Adj Flow Rate, veh/h	398	0	0	0	542	554				0	121	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	2	0	2	0	2	2				0	2	2
Cap, veh/h	695	0		0	938	795				0	0	
Arrive On Green	0.20	0.00	0.00	0.00	0.50	0.50				0.00	0.00	0.00
Sat Flow, veh/h	3456	398		0	1870	1585					0	
Grp Volume(v), veh/h	398	11.7		0	542	554					0.0	
Grp Sat Flow(s),veh/h/ln	1728	B		0	1870	1585						
Q Serve(g_s), s	3.1			0.0	6.2	8.1						
Cycle Q Clear(g_c), s	3.1			0.0	6.2	8.1						
Prop In Lane	1.00			0.00		1.00						
Lane Grp Cap(c), veh/h	695			0	938	795						
V/C Ratio(X)	0.57			0.00	0.58	0.70						
Avail Cap(c_a), veh/h	2065			0	938	795						
HCM Platoon Ratio	1.00			1.00	1.00	1.00						
Upstream Filter(I)	1.00			0.00	1.00	1.00						
Uniform Delay (d), s/veh	10.9			0.0	5.3	5.8						
Incr Delay (d2), s/veh	0.7			0.0	2.6	5.0						
Initial Q Delay(d3),s/veh	0.0			0.0	0.0	0.0						
%ile BackOfQ(95%),veh/ln	1.6			0.0	2.7	3.6						
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.7			0.0	7.9	10.8						
LnGrp LOS	B			A	A	B						
Approach Vol, veh/h					1096							
Approach Delay, s/veh					9.4							
Approach LOS					A							

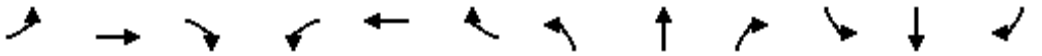
Timer - Assigned Phs	1	2
Phs Duration (G+Y+Rc), s	10.6	19.7
Change Period (Y+Rc), s	4.5	4.5
Max Green Setting (Gmax), s	18.1	15.2
Max Q Clear Time (g_c+I1), s	5.1	10.1
Green Ext Time (p_c), s	1.2	2.5

Intersection Summary	
HCM 6th Ctrl Delay	10.0
HCM 6th LOS	A

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
5: US 101 NB Ramps & Fairview Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	636	0	232	0	205	560	0	0	0	0	245	641
Future Volume (veh/h)	636	0	232	0	205	560	0	0	0	0	245	641
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	0	1870	0	1870	1870				0	1870	1870
Adj Flow Rate, veh/h	649	0	0	0	209	571				0	250	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	2	0	2	0	2	2				0	2	2
Cap, veh/h	986	0		0	816	691				0	0	
Arrive On Green	0.29	0.00	0.00	0.00	0.44	0.44				0.00	0.00	0.00
Sat Flow, veh/h	3456	649		0	1870	1585					0	
Grp Volume(v), veh/h	649	10.9		0	209	571					0.0	
Grp Sat Flow(s),veh/h/ln	1728	B		0	1870	1585						
Q Serve(g_s), s	5.3			0.0	2.3	10.3						
Cycle Q Clear(g_c), s	5.3			0.0	2.3	10.3						
Prop In Lane	1.00			0.00		1.00						
Lane Grp Cap(c), veh/h	986			0	816	691						
V/C Ratio(X)	0.66			0.00	0.26	0.83						
Avail Cap(c_a), veh/h	1935			0	816	691						
HCM Platoon Ratio	1.00			1.00	1.00	1.00						
Upstream Filter(I)	1.00			0.00	1.00	1.00						
Uniform Delay (d), s/veh	10.2			0.0	5.8	8.0						
Incr Delay (d2), s/veh	0.8			0.0	0.8	10.9						
Initial Q Delay(d3),s/veh	0.0			0.0	0.0	0.0						
%ile BackOfQ(95%),veh/ln	2.6			0.0	1.1	6.9						
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.9			0.0	6.5	18.9						
LnGrp LOS	B			A	A	B						
Approach Vol, veh/h					780							
Approach Delay, s/veh					15.6							
Approach LOS					B							

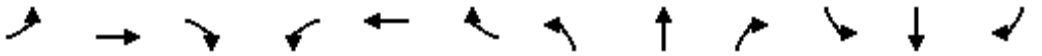
Timer - Assigned Phs	1	2
Phs Duration (G+Y+Rc), s	13.7	18.6
Change Period (Y+Rc), s	4.5	4.5
Max Green Setting (Gmax), s	18.1	14.1
Max Q Clear Time (g_c+I1), s	7.3	12.3
Green Ext Time (p_c), s	1.9	0.7

Intersection Summary	
HCM 6th Ctrl Delay	13.5
HCM 6th LOS	B

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
6: Fairview Ave & US 101 SB Ramps

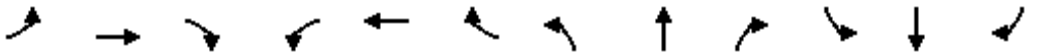


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	2	290	0	0	0	0	381	323	472	999	0
Future Volume (veh/h)	118	2	290	0	0	0	0	381	323	472	999	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	122	2	299				0	393	333	487	1030	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	416	7	376				0	1229	548	658	2174	0
Arrive On Green	0.24	0.24	0.24				0.00	0.35	0.35	0.19	0.61	0.00
Sat Flow, veh/h	1754	29	1585				0	3647	1585	3456	3647	0
Grp Volume(v), veh/h	124	0	299				0	393	333	487	1030	0
Grp Sat Flow(s),veh/h/ln	1783	0	1585				0	1777	1585	1728	1777	0
Q Serve(g_s), s	3.4	0.0	10.6				0.0	4.9	10.4	7.9	9.5	0.0
Cycle Q Clear(g_c), s	3.4	0.0	10.6				0.0	4.9	10.4	7.9	9.5	0.0
Prop In Lane	0.98		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	423	0	376				0	1229	548	658	2174	0
V/C Ratio(X)	0.29	0.00	0.79				0.00	0.32	0.61	0.74	0.47	0.00
Avail Cap(c_a), veh/h	920	0	818				0	1229	548	1286	2174	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.6	0.0	21.4				0.0	14.4	16.2	22.8	6.3	0.0
Incr Delay (d2), s/veh	0.4	0.0	3.8				0.0	0.7	4.9	1.7	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.4	0.0	7.0				0.0	3.3	7.2	5.5	4.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.0	0.0	25.2				0.0	15.0	21.1	24.4	7.1	0.0
LnGrp LOS	B	A	C				A	B	C	C	A	A
Approach Vol, veh/h		423						726			1517	
Approach Delay, s/veh		23.4						17.8			12.6	
Approach LOS		C						B			B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	15.9	25.1		18.7		41.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	22.2	9.8		30.8		36.5						
Max Q Clear Time (g_c+I1), s	9.9	12.4		12.6		11.5						
Green Ext Time (p_c), s	1.4	0.0		1.6		8.0						

Intersection Summary												
HCM 6th Ctrl Delay			15.8									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
6: Fairview Ave & US 101 SB Ramps

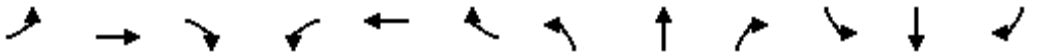


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	4	165	0	0	0	0	724	648	329	515	0
Future Volume (veh/h)	146	4	165	0	0	0	0	724	648	329	515	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	159	4	179				0	787	704	358	560	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	285	7	259				0	1619	722	513	2422	0
Arrive On Green	0.16	0.16	0.16				0.00	0.46	0.46	0.15	0.68	0.00
Sat Flow, veh/h	1740	44	1585				0	3647	1585	3456	3647	0
Grp Volume(v), veh/h	163	0	179				0	787	704	358	560	0
Grp Sat Flow(s),veh/h/ln	1783	0	1585				0	1777	1585	1728	1777	0
Q Serve(g_s), s	4.9	0.0	6.2				0.0	9.0	25.3	5.7	3.5	0.0
Cycle Q Clear(g_c), s	4.9	0.0	6.2				0.0	9.0	25.3	5.7	3.5	0.0
Prop In Lane	0.98		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	292	0	259				0	1619	722	513	2422	0
V/C Ratio(X)	0.56	0.00	0.69				0.00	0.49	0.97	0.70	0.23	0.00
Avail Cap(c_a), veh/h	792	0	704				0	1619	722	1082	2422	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.4	0.0	22.9				0.0	11.1	15.5	23.5	3.5	0.0
Incr Delay (d2), s/veh	1.7	0.0	3.3				0.0	1.0	27.9	1.7	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.6	0.0	4.2				0.0	5.6	18.7	4.0	1.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.0	0.0	26.2				0.0	12.1	43.4	25.2	3.7	0.0
LnGrp LOS	C	A	C				A	B	D	C	A	A
Approach Vol, veh/h		342						1491			918	
Approach Delay, s/veh		25.2						26.9			12.1	
Approach LOS		C						C			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.1	31.0		14.0		44.1
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5
Max Green Setting (Gmax), s	18.2	16.9		25.8		39.6
Max Q Clear Time (g_c+I1), s	7.7	27.3		8.2		5.5
Green Ext Time (p_c), s	0.9	0.0		1.4		4.0

Intersection Summary	
HCM 6th Ctrl Delay	21.7
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
1: Los Carneros Rd & US 101 NB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	837	5	67	27	347	0	0	478	140
Future Volume (veh/h)	0	0	0	837	5	67	27	347	0	0	478	140
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				982	0	0	29	377	0	0	520	152
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				1191	625	0	54	1995	0	0	1301	378
Arrive On Green				0.33	0.00	0.00	0.03	0.56	0.00	0.00	0.48	0.48
Sat Flow, veh/h				3563	1870	0	1781	3647	0	0	2809	790
Grp Volume(v), veh/h				982	0	0	29	377	0	0	339	333
Grp Sat Flow(s),veh/h/ln				1781	1870	0	1781	1777	0	0	1777	1728
Q Serve(g_s), s				19.4	0.0	0.0	1.2	4.0	0.0	0.0	9.4	9.5
Cycle Q Clear(g_c), s				19.4	0.0	0.0	1.2	4.0	0.0	0.0	9.4	9.5
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.46
Lane Grp Cap(c), veh/h				1191	625	0	54	1995	0	0	851	828
V/C Ratio(X)				0.82	0.00	0.00	0.54	0.19	0.00	0.00	0.40	0.40
Avail Cap(c_a), veh/h				2279	1196	0	163	1995	0	0	851	828
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				23.4	0.0	0.0	36.6	8.2	0.0	0.0	12.9	12.9
Incr Delay (d2), s/veh				1.5	0.0	0.0	8.3	0.2	0.0	0.0	1.4	1.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				12.5	0.0	0.0	1.1	2.3	0.0	0.0	6.6	6.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				24.9	0.0	0.0	44.9	8.5	0.0	0.0	14.3	14.3
LnGrp LOS				C	A	A	D	A	A	A	B	B
Approach Vol, veh/h					982			406			672	
Approach Delay, s/veh					24.9			11.1			14.3	
Approach LOS					C			B			B	

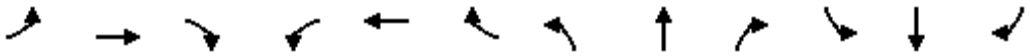
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	6.3	40.7		29.6		47.0						
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0						
Max Green Setting (Gmax), s	7.0	32.0		49.0		43.0						
Max Q Clear Time (g_c+I1), s	3.2	11.5		21.4		6.0						
Green Ext Time (p_c), s	0.0	4.0		4.2		2.4						

Intersection Summary		
HCM 6th Ctrl Delay		18.7
HCM 6th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
1: Los Carneros Rd & US 101 NB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	484	1	51	276	618	0	0	313	160
Future Volume (veh/h)	0	0	0	484	1	51	276	618	0	0	313	160
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				578	0	0	300	672	0	0	340	174
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				719	377	0	347	2503	0	0	1059	532
Arrive On Green				0.20	0.00	0.00	0.19	0.70	0.00	0.00	0.46	0.46
Sat Flow, veh/h				3563	1870	0	1781	3647	0	0	2384	1150
Grp Volume(v), veh/h				578	0	0	300	672	0	0	262	252
Grp Sat Flow(s),veh/h/ln				1781	1870	0	1781	1777	0	0	1777	1663
Q Serve(g_s), s				13.2	0.0	0.0	13.9	5.9	0.0	0.0	7.9	8.2
Cycle Q Clear(g_c), s				13.2	0.0	0.0	13.9	5.9	0.0	0.0	7.9	8.2
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.69
Lane Grp Cap(c), veh/h				719	377	0	347	2503	0	0	822	769
V/C Ratio(X)				0.80	0.00	0.00	0.86	0.27	0.00	0.00	0.32	0.33
Avail Cap(c_a), veh/h				1338	703	0	648	2503	0	0	822	769
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				32.4	0.0	0.0	33.2	4.6	0.0	0.0	14.4	14.5
Incr Delay (d2), s/veh				2.2	0.0	0.0	6.4	0.3	0.0	0.0	1.0	1.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				9.7	0.0	0.0	10.3	2.7	0.0	0.0	5.7	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				34.6	0.0	0.0	39.6	4.9	0.0	0.0	15.5	15.6
LnGrp LOS				C	A	A	D	A	A	A	B	B
Approach Vol, veh/h					578			972			514	
Approach Delay, s/veh					34.6			15.6			15.5	
Approach LOS					C			B			B	

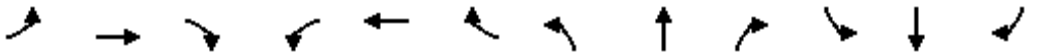
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	20.6	43.4		21.2		64.0						
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0						
Max Green Setting (Gmax), s	31.0	25.0		32.0		60.0						
Max Q Clear Time (g_c+I1), s	15.9	10.2		15.2		7.9						
Green Ext Time (p_c), s	0.7	2.7		2.0		4.7						

Intersection Summary		
HCM 6th Ctrl Delay		20.9
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
2: US 101 SB Ramps & Los Carneros Rd

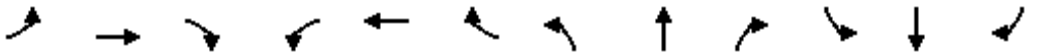


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	3	245	0	0	0	0	153	398	101	1238	0
Future Volume (veh/h)	133	3	245	0	0	0	0	153	398	101	1238	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	145	3	266				0	166	433	110	1346	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	351	7	319				0	2070	923	141	2514	0
Arrive On Green	0.20	0.20	0.20				0.00	0.58	0.58	0.08	0.71	0.00
Sat Flow, veh/h	1747	36	1585				0	3647	1585	1781	3647	0
Grp Volume(v), veh/h	148	0	266				0	166	433	110	1346	0
Grp Sat Flow(s),veh/h/ln	1783	0	1585				0	1777	1585	1781	1777	0
Q Serve(g_s), s	6.3	0.0	14.1				0.0	1.8	13.8	5.3	15.6	0.0
Cycle Q Clear(g_c), s	6.3	0.0	14.1				0.0	1.8	13.8	5.3	15.6	0.0
Prop In Lane	0.98		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	359	0	319				0	2070	923	141	2514	0
V/C Ratio(X)	0.41	0.00	0.83				0.00	0.08	0.47	0.78	0.54	0.00
Avail Cap(c_a), veh/h	610	0	543				0	2070	923	346	2514	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.5	0.0	33.6				0.0	8.0	10.5	39.6	6.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	5.7				0.0	0.1	1.7	8.9	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.9	0.0	9.7				0.0	1.1	7.8	4.7	8.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.2	0.0	39.3				0.0	8.1	12.2	48.4	6.9	0.0
LnGrp LOS	C	A	D				A	A	B	D	A	A
Approach Vol, veh/h		414						599			1456	
Approach Delay, s/veh		36.4						11.1			10.0	
Approach LOS		D						B			A	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		66.0			11.0	55.0		21.6				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		62.0			17.0	41.0		30.0				
Max Q Clear Time (g_c+I1), s		17.6			7.3	15.8		16.1				
Green Ext Time (p_c), s		13.8			0.2	2.5		1.5				

Intersection Summary			
HCM 6th Ctrl Delay		14.7	
HCM 6th LOS		B	

HCM 6th Signalized Intersection Summary
2: US 101 SB Ramps & Los Carneros Rd

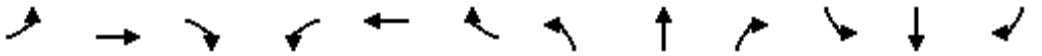


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	2	35	0	0	0	0	773	1106	70	809	0
Future Volume (veh/h)	84	2	35	0	0	0	0	773	1106	70	809	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	91	2	38				0	840	1202	76	879	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	131	3	119				0	2607	1163	98	2964	0
Arrive On Green	0.08	0.08	0.08				0.00	0.73	0.73	0.05	0.83	0.00
Sat Flow, veh/h	1745	38	1585				0	3647	1585	1781	3647	0
Grp Volume(v), veh/h	93	0	38				0	840	1202	76	879	0
Grp Sat Flow(s),veh/h/ln	1783	0	1585				0	1777	1585	1781	1777	0
Q Serve(g_s), s	4.5	0.0	2.0				0.0	7.3	64.6	3.7	4.8	0.0
Cycle Q Clear(g_c), s	4.5	0.0	2.0				0.0	7.3	64.6	3.7	4.8	0.0
Prop In Lane	0.98		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	134	0	119				0	2607	1163	98	2964	0
V/C Ratio(X)	0.70	0.00	0.32				0.00	0.32	1.03	0.78	0.30	0.00
Avail Cap(c_a), veh/h	377	0	335				0	2607	1163	142	2964	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.7	0.0	38.6				0.0	4.1	11.7	41.1	1.6	0.0
Incr Delay (d2), s/veh	6.3	0.0	1.5				0.0	0.3	35.4	15.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.9	0.0	1.5				0.0	3.1	33.4	3.6	1.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.1	0.0	40.1				0.0	4.4	47.1	56.3	1.9	0.0
LnGrp LOS	D	A	D				A	A	F	E	A	A
Approach Vol, veh/h		131						2042			955	
Approach Delay, s/veh		44.3						29.6			6.2	
Approach LOS		D						C			A	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		77.4			8.8	68.6		10.6				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		73.4			7.0	62.4		18.6				
Max Q Clear Time (g_c+I1), s		6.8			5.7	66.6		6.5				
Green Ext Time (p_c), s		7.5			0.0	0.0		0.4				

Intersection Summary												
HCM 6th Ctrl Delay			23.0									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
5: US 101 NB Ramps & Fairview Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	417	0	137	0	567	581	0	0	0	0	123	992
Future Volume (veh/h)	417	0	137	0	567	581	0	0	0	0	123	992
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	0	1870	0	1870	1870				0	1870	1870
Adj Flow Rate, veh/h	430	0	0	0	585	599				0	127	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	2	0	2	0	2	2				0	2	2
Cap, veh/h	735	0		0	925	784				0	0	
Arrive On Green	0.21	0.00	0.00	0.00	0.49	0.49				0.00	0.00	0.00
Sat Flow, veh/h	3456	430		0	1870	1585					0	
Grp Volume(v), veh/h	430	11.6		0	585	599					0.0	
Grp Sat Flow(s),veh/h/ln	1728	B		0	1870	1585						
Q Serve(g_s), s	3.4			0.0	7.1	9.4						
Cycle Q Clear(g_c), s	3.4			0.0	7.1	9.4						
Prop In Lane	1.00			0.00		1.00						
Lane Grp Cap(c), veh/h	735			0	925	784						
V/C Ratio(X)	0.59			0.00	0.63	0.76						
Avail Cap(c_a), veh/h	2035			0	925	784						
HCM Platoon Ratio	1.00			1.00	1.00	1.00						
Upstream Filter(I)	1.00			0.00	1.00	1.00						
Uniform Delay (d), s/veh	10.9			0.0	5.7	6.3						
Incr Delay (d2), s/veh	0.7			0.0	3.3	7.0						
Initial Q Delay(d3),s/veh	0.0			0.0	0.0	0.0						
%ile BackOfQ(95%),veh/ln	1.7			0.0	3.4	4.8						
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.6			0.0	9.0	13.3						
LnGrp LOS	B			A	A	B						
Approach Vol, veh/h					1184							
Approach Delay, s/veh					11.2							
Approach LOS					B							

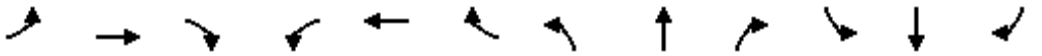
Timer - Assigned Phs	1	2
Phs Duration (G+Y+Rc), s	11.0	19.7
Change Period (Y+Rc), s	4.5	4.5
Max Green Setting (Gmax), s	18.1	15.2
Max Q Clear Time (g_c+I1), s	5.4	11.4
Green Ext Time (p_c), s	1.3	2.1

Intersection Summary	
HCM 6th Ctrl Delay	11.3
HCM 6th LOS	B

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
5: US 101 NB Ramps & Fairview Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	685	0	251	0	221	606	0	0	0	0	264	694
Future Volume (veh/h)	685	0	251	0	221	606	0	0	0	0	264	694
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	0	1870	0	1870	1870				0	1870	1870
Adj Flow Rate, veh/h	699	0	0	0	226	618				0	269	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	2	0	2	0	2	2				0	2	2
Cap, veh/h	1035	0		0	800	678				0	0	
Arrive On Green	0.30	0.00	0.00	0.00	0.43	0.43				0.00	0.00	0.00
Sat Flow, veh/h	3456	699		0	1870	1585					0	
Grp Volume(v), veh/h	699	10.9		0	226	618					0.0	
Grp Sat Flow(s),veh/h/ln	1728	B		0	1870	1585						
Q Serve(g_s), s	5.9			0.0	2.6	12.1						
Cycle Q Clear(g_c), s	5.9			0.0	2.6	12.1						
Prop In Lane	1.00			0.00		1.00						
Lane Grp Cap(c), veh/h	1035			0	800	678						
V/C Ratio(X)	0.68			0.00	0.28	0.91						
Avail Cap(c_a), veh/h	1897			0	800	678						
HCM Platoon Ratio	1.00			1.00	1.00	1.00						
Upstream Filter(I)	1.00			0.00	1.00	1.00						
Uniform Delay (d), s/veh	10.1			0.0	6.1	8.9						
Incr Delay (d2), s/veh	0.8			0.0	0.9	18.7						
Initial Q Delay(d3),s/veh	0.0			0.0	0.0	0.0						
%ile BackOfQ(95%),veh/ln	2.8			0.0	1.3	9.6						
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.9			0.0	7.0	27.6						
LnGrp LOS	B			A	A	C						
Approach Vol, veh/h					844							
Approach Delay, s/veh					22.1							
Approach LOS					C							

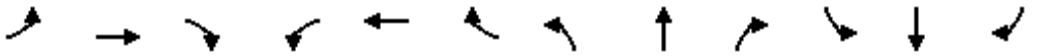
Timer - Assigned Phs	1	2
Phs Duration (G+Y+Rc), s	14.4	18.6
Change Period (Y+Rc), s	4.5	4.5
Max Green Setting (Gmax), s	18.1	14.1
Max Q Clear Time (g_c+I1), s	7.9	14.1
Green Ext Time (p_c), s	2.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	17.0
HCM 6th LOS	B

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
6: Fairview Ave & US 101 SB Ramps

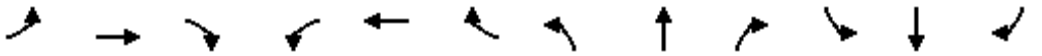


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	128	2	314	0	0	0	0	411	349	511	1076	0
Future Volume (veh/h)	128	2	314	0	0	0	0	411	349	511	1076	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	132	2	324				0	424	360	527	1109	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	444	7	401				0	1150	513	697	2130	0
Arrive On Green	0.25	0.25	0.25				0.00	0.32	0.32	0.20	0.60	0.00
Sat Flow, veh/h	1756	27	1585				0	3647	1585	3456	3647	0
Grp Volume(v), veh/h	134	0	324				0	424	360	527	1109	0
Grp Sat Flow(s),veh/h/ln	1783	0	1585				0	1777	1585	1728	1777	0
Q Serve(g_s), s	3.7	0.0	11.7				0.0	5.6	12.1	8.7	11.1	0.0
Cycle Q Clear(g_c), s	3.7	0.0	11.7				0.0	5.6	12.1	8.7	11.1	0.0
Prop In Lane	0.99		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	451	0	401				0	1150	513	697	2130	0
V/C Ratio(X)	0.30	0.00	0.81				0.00	0.37	0.70	0.76	0.52	0.00
Avail Cap(c_a), veh/h	901	0	802				0	1150	513	1260	2130	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.4	0.0	21.4				0.0	15.8	18.0	22.9	7.1	0.0
Incr Delay (d2), s/veh	0.4	0.0	3.9				0.0	0.9	7.8	1.7	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.6	0.0	7.7				0.0	3.9	8.7	6.1	5.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.7	0.0	25.3				0.0	16.7	25.8	24.6	8.0	0.0
LnGrp LOS	B	A	C				A	B	C	C	A	A
Approach Vol, veh/h		458						784			1636	
Approach Delay, s/veh		23.4						20.9			13.4	
Approach LOS		C						C			B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	16.8	24.2		19.9		41.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	22.2	9.8		30.8		36.5						
Max Q Clear Time (g_c+I1), s	10.7	14.1		13.7		13.1						
Green Ext Time (p_c), s	1.5	0.0		1.7		8.5						

Intersection Summary												
HCM 6th Ctrl Delay			17.0									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
6: Fairview Ave & US 101 SB Ramps

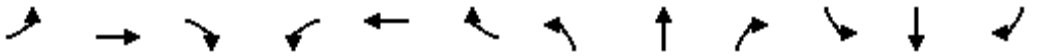


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	4	179	0	0	0	0	780	699	356	555	0
Future Volume (veh/h)	158	4	179	0	0	0	0	780	699	356	555	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	172	4	195				0	848	760	387	603	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	304	7	277				0	1561	696	542	2390	0
Arrive On Green	0.17	0.17	0.17				0.00	0.44	0.44	0.16	0.67	0.00
Sat Flow, veh/h	1743	41	1585				0	3647	1585	3456	3647	0
Grp Volume(v), veh/h	176	0	195				0	848	760	387	603	0
Grp Sat Flow(s),veh/h/ln	1783	0	1585				0	1777	1585	1728	1777	0
Q Serve(g_s), s	5.3	0.0	6.8				0.0	10.3	25.9	6.3	3.9	0.0
Cycle Q Clear(g_c), s	5.3	0.0	6.8				0.0	10.3	25.9	6.3	3.9	0.0
Prop In Lane	0.98		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	311	0	277				0	1561	696	542	2390	0
V/C Ratio(X)	0.57	0.00	0.71				0.00	0.54	1.09	0.71	0.25	0.00
Avail Cap(c_a), veh/h	781	0	695				0	1561	696	1068	2390	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.3	0.0	22.9				0.0	12.2	16.5	23.6	3.8	0.0
Incr Delay (d2), s/veh	1.6	0.0	3.3				0.0	1.4	61.8	1.8	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.9	0.0	4.6				0.0	6.6	28.4	4.4	1.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.9	0.0	26.2				0.0	13.5	78.3	25.3	4.1	0.0
LnGrp LOS	C	A	C				A	B	F	C	A	A
Approach Vol, veh/h		371						1608			990	
Approach Delay, s/veh		25.1						44.1			12.4	
Approach LOS		C						D			B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	13.7	30.4		14.8		44.1						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	18.2	16.9		25.8		39.6						
Max Q Clear Time (g_c+I1), s	8.3	27.9		8.8		5.9						
Green Ext Time (p_c), s	1.0	0.0		1.5		4.4						

Intersection Summary												
HCM 6th Ctrl Delay			31.2									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
1: Los Carneros Rd & US 101 NB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	837	5	67	28	347	0	0	480	140
Future Volume (veh/h)	0	0	0	837	5	67	28	347	0	0	480	140
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				982	0	0	30	377	0	0	522	152
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				1191	625	0	55	1995	0	0	1300	377
Arrive On Green				0.33	0.00	0.00	0.03	0.56	0.00	0.00	0.48	0.48
Sat Flow, veh/h				3563	1870	0	1781	3647	0	0	2811	788
Grp Volume(v), veh/h				982	0	0	30	377	0	0	340	334
Grp Sat Flow(s),veh/h/ln				1781	1870	0	1781	1777	0	0	1777	1729
Q Serve(g_s), s				19.4	0.0	0.0	1.3	4.0	0.0	0.0	9.5	9.6
Cycle Q Clear(g_c), s				19.4	0.0	0.0	1.3	4.0	0.0	0.0	9.5	9.6
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.46
Lane Grp Cap(c), veh/h				1191	625	0	55	1995	0	0	850	827
V/C Ratio(X)				0.82	0.00	0.00	0.55	0.19	0.00	0.00	0.40	0.40
Avail Cap(c_a), veh/h				2279	1196	0	163	1995	0	0	850	827
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				23.4	0.0	0.0	36.6	8.2	0.0	0.0	12.9	12.9
Incr Delay (d2), s/veh				1.5	0.0	0.0	8.2	0.2	0.0	0.0	1.4	1.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				12.5	0.0	0.0	1.2	2.3	0.0	0.0	6.7	6.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				24.9	0.0	0.0	44.8	8.5	0.0	0.0	14.3	14.4
LnGrp LOS				C	A	A	D	A	A	A	B	B
Approach Vol, veh/h					982			407			674	
Approach Delay, s/veh					24.9			11.1			14.3	
Approach LOS					C			B			B	

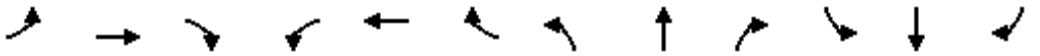
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	6.4	40.6		29.6		47.0						
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0						
Max Green Setting (Gmax), s	7.0	32.0		49.0		43.0						
Max Q Clear Time (g_c+I1), s	3.3	11.6		21.4		6.0						
Green Ext Time (p_c), s	0.0	4.1		4.2		2.4						

Intersection Summary		
HCM 6th Ctrl Delay		18.8
HCM 6th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
1: Los Carneros Rd & US 101 NB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	484	1	51	278	620	0	0	314	160
Future Volume (veh/h)	0	0	0	484	1	51	278	620	0	0	314	160
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				578	0	0	302	674	0	0	341	174
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				719	377	0	349	2503	0	0	1058	529
Arrive On Green				0.20	0.00	0.00	0.20	0.70	0.00	0.00	0.46	0.46
Sat Flow, veh/h				3563	1870	0	1781	3647	0	0	2386	1148
Grp Volume(v), veh/h				578	0	0	302	674	0	0	263	252
Grp Sat Flow(s),veh/h/ln				1781	1870	0	1781	1777	0	0	1777	1664
Q Serve(g_s), s				13.2	0.0	0.0	14.0	5.9	0.0	0.0	8.0	8.2
Cycle Q Clear(g_c), s				13.2	0.0	0.0	14.0	5.9	0.0	0.0	8.0	8.2
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.69
Lane Grp Cap(c), veh/h				719	377	0	349	2503	0	0	820	768
V/C Ratio(X)				0.80	0.00	0.00	0.86	0.27	0.00	0.00	0.32	0.33
Avail Cap(c_a), veh/h				1338	703	0	648	2503	0	0	820	768
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				32.4	0.0	0.0	33.1	4.6	0.0	0.0	14.5	14.6
Incr Delay (d2), s/veh				2.2	0.0	0.0	6.4	0.3	0.0	0.0	1.0	1.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				9.7	0.0	0.0	10.3	2.7	0.0	0.0	5.8	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				34.6	0.0	0.0	39.6	4.9	0.0	0.0	15.5	15.7
LnGrp LOS				C	A	A	D	A	A	A	B	B
Approach Vol, veh/h					578			976			515	
Approach Delay, s/veh					34.6			15.6			15.6	
Approach LOS					C			B			B	

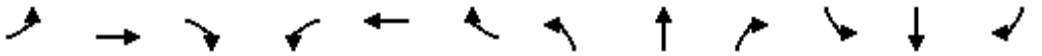
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	20.7	43.3		21.2		64.0						
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0						
Max Green Setting (Gmax), s	31.0	25.0		32.0		60.0						
Max Q Clear Time (g_c+I1), s	16.0	10.2		15.2		7.9						
Green Ext Time (p_c), s	0.7	2.7		2.0		4.8						

Intersection Summary		
HCM 6th Ctrl Delay		20.9
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
2: US 101 SB Ramps & Los Carneros Rd

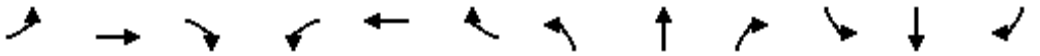


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	3	247	0	0	0	0	154	398	101	1240	0
Future Volume (veh/h)	133	3	247	0	0	0	0	154	398	101	1240	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	145	3	268				0	167	433	110	1348	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	353	7	321				0	2067	922	141	2511	0
Arrive On Green	0.20	0.20	0.20				0.00	0.58	0.58	0.08	0.71	0.00
Sat Flow, veh/h	1747	36	1585				0	3647	1585	1781	3647	0
Grp Volume(v), veh/h	148	0	268				0	167	433	110	1348	0
Grp Sat Flow(s),veh/h/ln	1783	0	1585				0	1777	1585	1781	1777	0
Q Serve(g_s), s	6.3	0.0	14.2				0.0	1.8	13.8	5.3	15.7	0.0
Cycle Q Clear(g_c), s	6.3	0.0	14.2				0.0	1.8	13.8	5.3	15.7	0.0
Prop In Lane	0.98		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	361	0	321				0	2067	922	141	2511	0
V/C Ratio(X)	0.41	0.00	0.84				0.00	0.08	0.47	0.78	0.54	0.00
Avail Cap(c_a), veh/h	610	0	542				0	2067	922	345	2511	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.4	0.0	33.6				0.0	8.1	10.6	39.6	6.1	0.0
Incr Delay (d2), s/veh	0.7	0.0	5.7				0.0	0.1	1.7	8.9	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.9	0.0	9.8				0.0	1.1	7.8	4.7	8.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.2	0.0	39.3				0.0	8.1	12.3	48.5	6.9	0.0
LnGrp LOS	C	A	D				A	A	B	D	A	A
Approach Vol, veh/h		416						600			1458	
Approach Delay, s/veh		36.4						11.1			10.1	
Approach LOS		D						B			B	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		66.0			11.0	55.0		21.8				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		62.0			17.0	41.0		30.0				
Max Q Clear Time (g_c+I1), s		17.7			7.3	15.8		16.2				
Green Ext Time (p_c), s		13.9			0.2	2.5		1.5				

Intersection Summary			
HCM 6th Ctrl Delay		14.8	
HCM 6th LOS		B	

HCM 6th Signalized Intersection Summary
2: US 101 SB Ramps & Los Carneros Rd

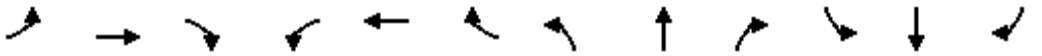


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	2	36	0	0	0	0	776	1106	70	810	0
Future Volume (veh/h)	84	2	36	0	0	0	0	776	1106	70	810	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	91	2	39				0	843	1202	76	880	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	131	3	119				0	2607	1163	98	2964	0
Arrive On Green	0.08	0.08	0.08				0.00	0.73	0.73	0.05	0.83	0.00
Sat Flow, veh/h	1745	38	1585				0	3647	1585	1781	3647	0
Grp Volume(v), veh/h	93	0	39				0	843	1202	76	880	0
Grp Sat Flow(s),veh/h/ln	1783	0	1585				0	1777	1585	1781	1777	0
Q Serve(g_s), s	4.5	0.0	2.1				0.0	7.3	64.6	3.7	4.8	0.0
Cycle Q Clear(g_c), s	4.5	0.0	2.1				0.0	7.3	64.6	3.7	4.8	0.0
Prop In Lane	0.98		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	134	0	119				0	2607	1163	98	2964	0
V/C Ratio(X)	0.69	0.00	0.33				0.00	0.32	1.03	0.78	0.30	0.00
Avail Cap(c_a), veh/h	377	0	335				0	2607	1163	142	2964	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.7	0.0	38.6				0.0	4.1	11.7	41.1	1.6	0.0
Incr Delay (d2), s/veh	6.3	0.0	1.6				0.0	0.3	35.5	15.3	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.9	0.0	1.5				0.0	3.1	33.4	3.6	1.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.0	0.0	40.2				0.0	4.4	47.2	56.3	1.9	0.0
LnGrp LOS	D	A	D				A	A	F	E	A	A
Approach Vol, veh/h		132						2045			956	
Approach Delay, s/veh		44.3						29.6			6.2	
Approach LOS		D						C			A	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		77.4			8.8	68.6		10.6				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		73.4			7.0	62.4		18.6				
Max Q Clear Time (g_c+I1), s		6.8			5.7	66.6		6.5				
Green Ext Time (p_c), s		7.5			0.0	0.0		0.4				

Intersection Summary												
HCM 6th Ctrl Delay			23.0									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
5: US 101 NB Ramps & Fairview Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	418	0	137	0	569	581	0	0	0	0	126	992
Future Volume (veh/h)	418	0	137	0	569	581	0	0	0	0	126	992
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	0	1870	0	1870	1870				0	1870	1870
Adj Flow Rate, veh/h	431	0	0	0	587	599				0	130	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	2	0	2	0	2	2				0	2	2
Cap, veh/h	736	0		0	925	784				0	0	
Arrive On Green	0.21	0.00	0.00	0.00	0.49	0.49				0.00	0.00	0.00
Sat Flow, veh/h	3456	431		0	1870	1585					0	
Grp Volume(v), veh/h	431	11.6		0	587	599					0.0	
Grp Sat Flow(s),veh/h/ln	1728	B		0	1870	1585						
Q Serve(g_s), s	3.4			0.0	7.1	9.4						
Cycle Q Clear(g_c), s	3.4			0.0	7.1	9.4						
Prop In Lane	1.00			0.00		1.00						
Lane Grp Cap(c), veh/h	736			0	925	784						
V/C Ratio(X)	0.59			0.00	0.63	0.76						
Avail Cap(c_a), veh/h	2034			0	925	784						
HCM Platoon Ratio	1.00			1.00	1.00	1.00						
Upstream Filter(I)	1.00			0.00	1.00	1.00						
Uniform Delay (d), s/veh	10.9			0.0	5.7	6.3						
Incr Delay (d2), s/veh	0.7			0.0	3.3	7.0						
Initial Q Delay(d3),s/veh	0.0			0.0	0.0	0.0						
%ile BackOfQ(95%),veh/ln	1.7			0.0	3.4	4.8						
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.6			0.0	9.0	13.3						
LnGrp LOS	B			A	A	B						
Approach Vol, veh/h					1186							
Approach Delay, s/veh					11.2							
Approach LOS					B							

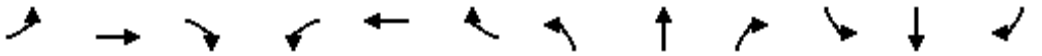
Timer - Assigned Phs	1	2
Phs Duration (G+Y+Rc), s	11.0	19.7
Change Period (Y+Rc), s	4.5	4.5
Max Green Setting (Gmax), s	18.1	15.2
Max Q Clear Time (g_c+I1), s	5.4	11.4
Green Ext Time (p_c), s	1.3	2.1

Intersection Summary	
HCM 6th Ctrl Delay	11.3
HCM 6th LOS	B

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
5: US 101 NB Ramps & Fairview Ave



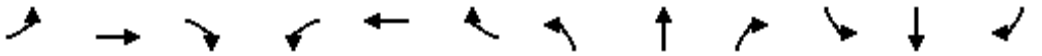
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	688	0	251	0	222	606	0	0	0	0	265	694
Future Volume (veh/h)	688	0	251	0	222	606	0	0	0	0	265	694
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	0	1870	0	1870	1870				0	1870	1870
Adj Flow Rate, veh/h	702	0	0	0	227	618				0	270	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	2	0	2	0	2	2				0	2	2
Cap, veh/h	1038	0		0	799	677				0	0	
Arrive On Green	0.30	0.00	0.00	0.00	0.43	0.43				0.00	0.00	0.00
Sat Flow, veh/h	3456	702		0	1870	1585					0	
Grp Volume(v), veh/h	702	10.9		0	227	618					0.0	
Grp Sat Flow(s),veh/h/ln	1728	B		0	1870	1585						
Q Serve(g_s), s	5.9			0.0	2.6	12.1						
Cycle Q Clear(g_c), s	5.9			0.0	2.6	12.1						
Prop In Lane	1.00			0.00		1.00						
Lane Grp Cap(c), veh/h	1038			0	799	677						
V/C Ratio(X)	0.68			0.00	0.28	0.91						
Avail Cap(c_a), veh/h	1894			0	799	677						
HCM Platoon Ratio	1.00			1.00	1.00	1.00						
Upstream Filter(I)	1.00			0.00	1.00	1.00						
Uniform Delay (d), s/veh	10.1			0.0	6.2	8.9						
Incr Delay (d2), s/veh	0.8			0.0	0.9	18.8						
Initial Q Delay(d3),s/veh	0.0			0.0	0.0	0.0						
%ile BackOfQ(95%),veh/ln	2.8			0.0	1.4	9.6						
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.9			0.0	7.1	27.7						
LnGrp LOS	B			A	A	C						
Approach Vol, veh/h					845							
Approach Delay, s/veh					22.2							
Approach LOS					C							

Timer - Assigned Phs	1	2
Phs Duration (G+Y+Rc), s	14.4	18.6
Change Period (Y+Rc), s	4.5	4.5
Max Green Setting (Gmax), s	18.1	14.1
Max Q Clear Time (g_c+I1), s	7.9	14.1
Green Ext Time (p_c), s	2.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	17.1
HCM 6th LOS	B

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

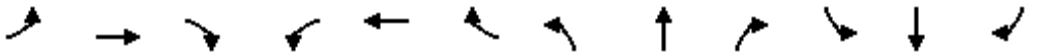


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	128	2	314	0	0	0	0	412	350	511	1081	0
Future Volume (veh/h)	128	2	314	0	0	0	0	412	350	511	1081	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	132	2	324				0	425	361	527	1114	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	444	7	401				0	1150	513	697	2130	0
Arrive On Green	0.25	0.25	0.25				0.00	0.32	0.32	0.20	0.60	0.00
Sat Flow, veh/h	1756	27	1585				0	3647	1585	3456	3647	0
Grp Volume(v), veh/h	134	0	324				0	425	361	527	1114	0
Grp Sat Flow(s),veh/h/ln	1783	0	1585				0	1777	1585	1728	1777	0
Q Serve(g_s), s	3.7	0.0	11.7				0.0	5.6	12.2	8.7	11.1	0.0
Cycle Q Clear(g_c), s	3.7	0.0	11.7				0.0	5.6	12.2	8.7	11.1	0.0
Prop In Lane	0.99		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	451	0	401				0	1150	513	697	2130	0
V/C Ratio(X)	0.30	0.00	0.81				0.00	0.37	0.70	0.76	0.52	0.00
Avail Cap(c_a), veh/h	901	0	802				0	1150	513	1260	2130	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.4	0.0	21.4				0.0	15.8	18.0	22.9	7.1	0.0
Incr Delay (d2), s/veh	0.4	0.0	3.9				0.0	0.9	7.9	1.7	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.6	0.0	7.7				0.0	3.9	8.7	6.1	5.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.7	0.0	25.3				0.0	16.7	25.9	24.6	8.0	0.0
LnGrp LOS	B	A	C				A	B	C	C	A	A
Approach Vol, veh/h		458						786			1641	
Approach Delay, s/veh		23.4						21.0			13.4	
Approach LOS		C						C			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	16.8	24.2		19.9		41.0
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5
Max Green Setting (Gmax), s	22.2	9.8		30.8		36.5
Max Q Clear Time (g_c+I1), s	10.7	14.2		13.7		13.1
Green Ext Time (p_c), s	1.5	0.0		1.7		8.6

Intersection Summary			
HCM 6th Ctrl Delay			17.0
HCM 6th LOS			B

HCM 6th Signalized Intersection Summary
6: Fairview Ave & US 101 SB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	4	179	0	0	0	0	783	701	356	557	0
Future Volume (veh/h)	158	4	179	0	0	0	0	783	701	356	557	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	172	4	195				0	851	762	387	605	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	304	7	277				0	1561	696	542	2390	0
Arrive On Green	0.17	0.17	0.17				0.00	0.44	0.44	0.16	0.67	0.00
Sat Flow, veh/h	1743	41	1585				0	3647	1585	3456	3647	0
Grp Volume(v), veh/h	176	0	195				0	851	762	387	605	0
Grp Sat Flow(s),veh/h/ln	1783	0	1585				0	1777	1585	1728	1777	0
Q Serve(g_s), s	5.3	0.0	6.8				0.0	10.4	25.9	6.3	4.0	0.0
Cycle Q Clear(g_c), s	5.3	0.0	6.8				0.0	10.4	25.9	6.3	4.0	0.0
Prop In Lane	0.98		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	311	0	277				0	1561	696	542	2390	0
V/C Ratio(X)	0.57	0.00	0.71				0.00	0.55	1.09	0.71	0.25	0.00
Avail Cap(c_a), veh/h	781	0	695				0	1561	696	1068	2390	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.3	0.0	22.9				0.0	12.2	16.5	23.6	3.8	0.0
Incr Delay (d2), s/veh	1.6	0.0	3.3				0.0	1.4	62.8	1.8	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.9	0.0	4.6				0.0	6.6	28.7	4.4	1.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.9	0.0	26.2				0.0	13.5	79.3	25.3	4.1	0.0
LnGrp LOS	C	A	C				A	B	F	C	A	A
Approach Vol, veh/h		371						1613			992	
Approach Delay, s/veh		25.1						44.6			12.4	
Approach LOS		C						D			B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	13.7	30.4		14.8		44.1						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	18.2	16.9		25.8		39.6						
Max Q Clear Time (g_c+I1), s	8.3	27.9		8.8		6.0						
Green Ext Time (p_c), s	1.0	0.0		1.5		4.4						

Intersection Summary												
HCM 6th Ctrl Delay			31.4									
HCM 6th LOS			C									

Appendix G

AB 52 Noticing

NATIVE AMERICAN HERITAGE COMMISSION

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Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

February 11, 2020

Claudia Dato
City of Goleta

Via Email to: cdato@gmail.com

Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, Goleta Train Depot Project, Santa Barbara County

Dear Ms. Dato:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

- Any report that may contain site forms, site significance, and suggested mitigation measures.

  All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was positive. Please contact the tribes on the attached list for more information.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Staff Services Analyst

Attachment

Native American Heritage Commission
Tribal Consultation List
Santa Barbara County
2/11/2020

Barbareno/Ventureno Band of Mission Indians
Julie Tumamait-Stenslie, Chairperson
365 North Poli Ave
Ojai, CA, 93023
Phone: (805) 646 - 6214
jtumamait@hotmail.com
Chumash

Chumash Council of Bakersfield
Julio Quair, Chairperson
729 Texas Street
Bakersfield, CA, 93307
Phone: (661) 322 - 0121
chumashtribe@sbcglobal.net
Chumash

Coastal Band of the Chumash Nation
Gino Altamirano, Chairperson
P. O. Box 4464
Santa Barbara, CA, 93140
cbcn.consultation@gmail.com
Chumash

Northern Chumash Tribal Council
Fred Collins, Spokesperson
P.O. Box 6533
Los Osos, CA, 93412
Phone: (805) 801 - 0347
fcollins@northernchumash.org
Chumash

San Luis Obispo County Chumash Council
Mark Vigil, Chief
1030 Ritchie Road
Grover Beach, CA, 93433
Phone: (805) 481 - 2461
Fax: (805) 474-4729
Chumash

Santa Ynez Band of Chumash Indians
Kenneth Kahn, Chairperson
P.O. Box 517
Santa Ynez, CA, 93460
Phone: (805) 688 - 7997
Fax: (805) 686-9578
kkahn@santaynezchumash.org
Chumash

yak tityu tityu yak tiłhini – Northern Chumash Tribe
Mona Tucker, Chairperson
660 Camino Del Rey
Arroyo Grande, CA, 93420
Phone: (805) 748 - 2121
olivas.mona@gmail.com
Chumash

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Goleta Train Depot Project, Santa Barbara County.

CITY OF GOLETA

Sent Via Certified Mail (Return Receipt Requested) and Email

February 13, 2020

CITY COUNCIL

Paula Perotte
Mayor

Kyle Richards
Mayor Pro Tempore

Roger S. Aceves
Councilmember

Stuart Kasdin
Councilmember

James Kyriaco
Councilmember

CITY MANAGER
Michelle Greene

Julie Tumamait-Stenslie
Barbareno/Ventureno Band of Mission Indians
365 North Poli Avenue
Ojai, CA 93023

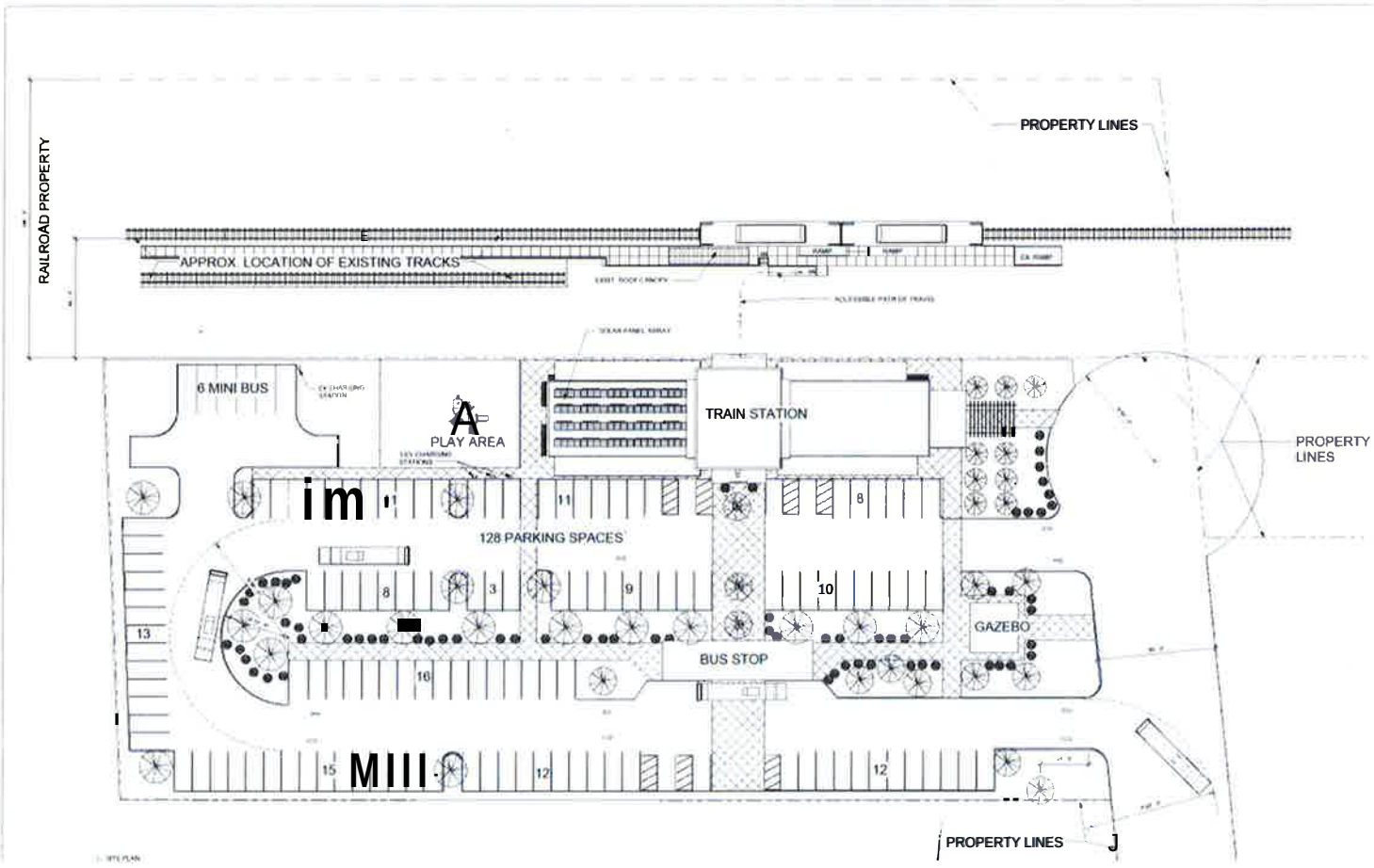
RE: AB 52 TRIBAL CULTURAL RESOURCES CEQA CONSULTATION
Goleta Train Depot Project, 27 South La Patera (APN 073-050-033)

Dear Ms. Tumamait-Stenslie:

The City of Goleta is in the process of conducting environmental review for a proposed new train depot to be located on a site identified as 27 South La Patera Lane (APN 073-050-033). The site is zoned M-RP and has a General Plan designation of Business Park. The property contains an existing industrial building and parking area formerly owned and operated by Direct Relief International. The site contains 30,390-square feet of warehouse space, two-story office space of approximately 8,280 square feet, a parking area with 54 parking spaces, ramp area with receiving dock, emergency generator and underground fuel tank.

The proposed Goleta Train Depot project will demolish the existing structure and construct a multi-modal Train Depot just south of the existing City of Goleta AMTRAK train platform site. The Train Depot building will be approximately 8,000 square feet. It will include a lobby, electronic ticketing area, waiting room, café, community meeting room, restrooms/ shower/changing facilities, bike storage and baggage storage lockers. In addition, the design of the depot will accommodate opportunities for public art projects both inside and outside the building. The new parking will accommodate approximately 128 vehicle parking spaces (existing parking capacity at the platform is only 27) as well as space for transit/shuttles/mini buses and corporate vanpools. The parking facility will include four electric charging stations. The parking area will include a one-way circulation road from South La Patera Lane that incorporates a bus stop. The stop can be used by local transit as well as shuttles and vanpools. The project will also include access improvements along South La Patera Lane between Hollister Avenue.

Please see the figure on the following page for a conceptual layout.



Per the NAHC we are contacting you as you may have knowledge of cultural resources in the project area. Also, as provided in Public Resource Code Section 21080.3.1, the City of Goleta is providing notification of the project and pending environmental review, and is offering the opportunity for the Barbareno/Ventureno Band of Mission Indians to provide consultation regarding the proposed project. If the Barbareno/Ventureno Band of Mission Indians is interested in consulting with the City on the above referenced/described project, please let us know in writing within 30 calendar days of receipt of this letter in accordance with PRC Section 21080.3.1(b).

Thank you for your assistance with this request. If you have any questions, please contact me by email at cdato@cityofgoleta.org or by phone at (805) 961-7558.

Sincerely,

Claudia Dato

Claudia Dato
Senior Project Manager

Enclosure: Location Map

cc: Jaime Valdez, Principal Project Manager, City of Goleta; Goleta Train Depot case file

FIGURE 1 – Project Location Map.



Site Address: 27 South La Patera Lane, cross street Hollister Avenue in Goleta, CA 39117

Appendix H

Estimated Water Use Memorandum

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Anil Verma Associates, Inc.
Architecture, Engineering and Construction Management

Email:anilverma@earthlink.net
Web: www.anilverma.com

Memorandum

Project:	Goleta Train Depot Project		
To:	Jaime Valdez (City of Goleta)	**Memo Tech No:**	GTD-002
From:	Jim Keenan, ASLA	**Date:**	02/12/2021
cc:	Gerald Comati (City of Goleta, Ryan Russell (Rincon), Anil Verma, Lena Ly, Enrique Lopez (AVA) Scott Spaulding (SBCAG)		
Subject:	Estimated Water Usage (Based upon Preliminary Design Package – 35% Complete)		

1 Summary

OVERALL PROPERTY (Facility and Landscape)

The purpose of this memo is to outline the estimated water use for the City of Goleta's new multimodal train depot just south of the existing Goleta AMTRAK train platform site. The scope of improvements include a depot building, a new parking facility, and accommodations for buses, vanpools, and bicycles (***Train Depot Project***) at the station site (27 S. La Patera Lane).

The depot building and parking will be located on land owned by Goleta located immediately adjacent to the existing platform. Occupying the existing site is a +-38,000 square foot warehouse which composes roughly half of the project site with the warehouse located in the northern middle of the project area. The majority of the remaining area is surfaced with either concrete or asphalt pavement. The proposed project will not be modifying the existing platform. The train depot building is estimated to be approximately 9,000 square feet and will include a lobby, ticketing area, waiting room, café, community room, restrooms, offices, bike storage and baggage storage lockers.

Environmental documentation in accordance with the City's 2008 Environmental Review Guidelines is being prepared, including any necessary California Environmental Quality Act (CEQA) compliance documentation for the project. The GWD is currently not meeting all of the above conditions needed in order to approve new or additional water connections, pursuant to the SAFE Water Supplies Ordinance. However, the project site has a preexisting water use history associated with the on-site warehouse and, therefore, would be allowed water service under Exception 2: Customers with preexisting water use history that is recognized in the District Code and that is equal to or greater than the water use that is needed for the Proposed Project. According to the GWD, the available water credit for the project site per the District Code Section 5.16.041 is 0.96 AFY. The project would be required to comply with and not exceed the annual water credit, which is currently existing for the project site. Therefore, the project would have available water supplies from existing entitlements and not require new or expanded entitlements. Future water credits could be applied for once the GWD has met all of the conditions under the SAFE Water Supplies Ordinance. Impacts would be less than significant. "

The enforced limit on water use (building and landscape) is **0.96 Acre-Feet per Year (AFY).** This should provide an average estimated total water usage **857** gallons per day.

Anil Verma Associates, Inc.
Architecture, Engineering and Construction Management

Email:anilverma@earthlink.net
Web: www.anilverma.com

Memorandum

2 Depot Facility Water Use

OVERVIEW / ANALYSIS

The facility calculated water usage is assumed based upon a typical **Quick-Serve** restaurant. Typical water usage is anticipated to be approximately 8.5 gallons per seat per day with the following breakdown.

Café / Restroom Estimated Total Water usage/day = 60 restaurant occupants multiply by 8.5 = 510 gallons/day

1) Kitchen/dishwashing @ 52% usage of 510 = 265 gallons/day
2) Restrooms @ 40% of 510 = 204 gallons/day
3) Others @ 8% 0f 510 = 41 gallons/day

Summary of Depot facility total estimated water usage:

4) Restaurant/ restroom = 510 gallons/day
5) Miscellaneous/incidental = 41 gallons/day



* Referenced from Barista Guild.

ASSUMPTIONS:

- Quick-serve restaurant with limited menu which requires minimal preparation.
- Passenger waiting does not require a mandatory toilet facility; however, an incidental use 42 gallons has been attributed in the above calculation for that purpose if need be.
- Restroom fixtures are anticipated to be low flow / low water use type.
- The annual calculation was based upon an average x 365 assuming some days the depot may be closed and some days may experience higher volume.

ESTIMATED TOTAL WATER USAGE FOR DEPOT

The estimated preliminary minimum Building water demand for Goleta Depot is **551** gallon per day.

ETWU= 201,115 gallon / year = 0.617-acre feet / year

3 SITE LANDSCAPE

OVERVIEW / ANALYSIS:

The latest update on the MWELO constants now list the efficiency of drip irrigation at 0.81 and that overhead irrigation and other technologies must meet a minimum IE of 0.75. Based upon the preliminary 35% Complete Design landscape drawings, the planting area square footage is as follows:

1) Planting Areas: = 14,825 square feet
2) LID Planting Areas: = 5,400 square feet
3) 20,225 square feet x 75% (See assumption below) = 15,169 square feet

Total Planting Area is approximately 15,169 square feet

ASSUMPTIONS:

- Plant factor of .2 (balanced between very low and low). Palette selection consists of native plants and/or low water use perennials.

Email:anilverma@earthlink.net
Web: www.anilverma.com

- To minimize water usage and Landscape area is anticipated to be reduced approximately 20% of area by use of non-vegetative groundcovers as well as drainage outfall areas within LID planters.
- Goleta's Ordinance No. 16-04 Regulating Water Efficient Landscaping, Appendix A indicates an **ETo of 48.1**. However, the CIMIS map indicated a 46.6 ETo for Goleta. which would calculate as a lower water usage but we are using 48.1 to be on the conservative side.

ESTIMATED WATER USE CALCULATION:

The Landscape for the site was calculated as follows:

$$ETWU = (\mathbf{48.1})(0.62)\left[\frac{(15{,}169)(.2)}{.81}\right]$$

ESTIMATED TOTAL WATER USAGE FOR LANDSCAPE

The estimated preliminary landscape water demand for Depot site is **306** gallons per day.

ETWU = 111,700 gallon / year = 0.343-acre feet /year

REFERENCES:

$$ETWU = (ETo)(0.62)\left[\frac{(PF)(HA)}{IE} + SLA\right]$$

ETWU= Estimated Water Use
ET0 = Reference Evapotranspiration rate, (inches)
PF = Plant factor from WUCOLS
HA = Hydrozone area, (square feet)
SLA = Special Landscape Area, (square feet)
0.62 = Conversion factor
IE = Irrigation efficiency.

4 <Conclusions and Recommendations>

The Goleta Train Depot Project will need to operate conservatively based upon the allocated water allowance. Below outlines the estimated water use as well as additional strategies that may allow to increase the facility water availability by offsetting with reductions on the site landscape.

TOTAL FACILITY ETWU= 201,115 gallon / year = 0.617-acre feet / year (See Section #2 above)

TOTAL LANDSCAPE ETWU = 111,700 gallon / year = 0.343-acre feet /year (See Section #3 above)

OVERALL ESTIMATED WATER USE FOR METER SERVICE:

ETWU = 312,815 gallon / year / 325,851 = 0.96-acre feet / year

The estimated preliminary water demand is **858** gallon per day.

ADDITIONAL WATER SAVING STRATEGIES TO BE CONSIDERED:

1) Underground Rain Capture Cistern: Based upon a 9,000-sf roof area, a 16,000-gallon underground tank would be estimated and can be provided if construction budget allows. The estimated capture could help

Anil Verma Associates, Inc.
Architecture, Engineering and Construction Management

Memorandum

Email:anilverma@earthlink.net
Web: www.anilverma.com

supplement approximately 70,308 gallons of water per year based for irrigation, use purposes and allow for an increase in use with the Depot Facility. This is calculated by 620 gallons for every 1,000 square feet of roof space x 1" of rainfall. Goleta averages 18 gallons of rainfall per year. Anticipate 70% roof capture.

2) To make up the difference between demand and allowance, 60% of the annual landscape irrigation water use can be supplemented with trucks/rain capture.
3) Irrigation water usage can be further reduced from the previous landscape sf by roughly another 5% for a total of 25% and will assume more non-vegetative ground covers.
4) Additional irrigation supplementary water via watering truck or rain capture reservoir, or both, may be an option during drought years. Potential offset can be assumed up to ten 8,000-gallon water trucks per year, usually weekly during the summer months during the driest periods.
5) Closest recycled water line is located at Hollister Ave and Storke approximately 2 miles away. If in the future this line is further extended eastward, a new service could also offset the site water use considerably.
6) If water usage is higher than anticipated, the Café could have limited days or hours of operation. The café could also provide limited service, (example: only coffee and packaged food – no prep) in the morning).
7) The Existing meter serving the existing Warehouse is to be demolished. This served both the existing facility and existing landscape. Two new meters are proposed for the project: 1) Domestic Water services for the new Train Depot facility and; 2) For Landscape Irrigation Use only.