



THIS IS A NEW PROJECT REFERRAL / SUMMARY

DATE: 5/28/2026

TO: ASSESSOR, BUILDING, COASTAL COMMISSION, COUNTRY FIRE, CHIEF OF STAFF 2ND DIST, CAMBRIA CSD, GEOLOGY PEER REVIEW, NORTH COAST ADVISORY COUNCIL, PUBLIC WORKS, RWQCB, AND SAN MIGUEL ADVISORY COUNCIL.

FROM: Dane Mueller / 805-788-2959 / dmueller@co.slo.ca.us

PROJECT NUMBER & NAME: C-DRC2026-00014 - Minor Use Permit / Coastal Development Permit - Pacific Pines HOA

PROJECT DESCRIPTION: A request by the Pacific Pines Home Owner's Association for a Minor Use Permit / Coastal Development Permit (C-DRC2026-00014) to authorize the repair and expansion of existing drainage infrastructure. The project is in the Residential Single-Family land use category, located at APN: 013-124-022 in the Community of Cambria, approximately 400 feet northeast of the intersection of Ramsey Street and Skye Street. The project is in the North Coast Planning Area of the Coastal Zone

APN: 013-124-022

Please submit comments within 14 days from receipt of this referral. CACs please respond within 60 days. Thank you. In your response, please consider and/or indicate the following:

PART I: IS THE ATTACHED INFORMATION ADEQUATE TO COMPLETE YOUR REVIEW?

- ☐ YES (Please go on to PART II.)
- ☐ NO (Call me ASAP to discuss what else you need. We have only 10 days in which we must obtain comments from outside agencies.)

PART II: ARE THERE SIGNIFICANT CONCERNS, PROBLEMS OR IMPACTS IN YOUR AREA OF REVIEW?

- ☐ YES (Please describe impacts, along with recommended mitigation measures to reduce the impacts to less-than-significant levels, and attach to this letter.)
- ☐ NO (Please go on to PART III.)

PART III: INDICATE YOUR RECOMMENDATION FOR FINAL ACTION.

Please attach any conditions of approval you recommend to be incorporated into the project's approval, or state reasons for recommending denial.

IF YOU HAVE "NO COMMENT," PLEASE INDICATE (VIA E-MAIL OR PHONE).

Date	Name	Phone
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**All information and/or material provided in the following Referral Package is valid for 90 days after this correspondence. After that time please contact the Project Manager for the most updated information.*



COUNTY OF SAN LUIS OBISPO
DEPARTMENT OF PLANNING & BUILDING

Land Use – Checklist & Application Package

REQUIRED MATERIALS AND INFORMATION

The following information is required to be submitted with your application. If additional information is necessary for application review, Department staff will notify applicants and/or authorized agents. We are now accepting initial application materials in digital format but may request hard copies of documents and plans as necessary review and processing. Digital files should be in PDF format, and in a higher resolution to support digital review of all plan and map details.

FORMS

For applications via the Online Permit Portal: please upload this complete and digitally signed application package PLN-1000 (as detailed below).

Please provide one (1) completed copy of the following form:

- ☒ **PLN-1000: Land Use Application Checklist & Package.** This form conveniently combines all the following forms into one, and begins with a Checklist of Materials and Information Requirements for Applications
 - GEN-3000: General Application Contact Information
 - PLN-1004: Land Use – Project Information Form
 - PLN-1003: Environmental Description Form
 - PLN-1006: Information Disclosure form
 - PLN-1012: Land Use Consent of Property Owner form (only if applicant does not own the property)
 - PLN-1122: Hazardous Waste and Substances Statement Disclosure (PLN-1122)
- ☐ **Accessory Application form(s), if applicable.** These forms are not included in this package. Examples include, but are not limited to:
 - Curb, Gutter, and Sidewalk Waiver
 - Tree Removal form
 - Variance Application form

FEES

- ☐ Application fee (refer to current [fee schedule](#))

SITE LAYOUT PLAN(S)

For applications via the Online Permit Portal: please upload during initial application submittal. The Department may request up to 4 copies of full-sized hard copy plans for inter-agency review as necessary.

Plans should consist of an accurate drawing of the property, and the site plan must show the following items (where they apply to your site):

- ☒ Exterior boundaries and dimensions of the entire site
- ☒ North arrow and scale

Land Use – Checklist & Application Package

- ☒ Slope contour map (except when a grading plan is required), showing the following:
 - *Inside urban reserve lines* – show contours at 5-foot intervals for undeveloped areas and 2-foot intervals for building sites and paved or graded areas
 - *Outside urban reserve lines* – show contours at 10-foot intervals for undeveloped areas and 2-foot intervals for building sites
 - *Steep slopes* – areas in excess of 30% slope may be designated as such and contours omitted, unless proposed for grading, construction or other alterations
- ☒ General location of major topographic and man-made features, such as rock outcrops, bluffs, streams, swales and graded areas
- ☒ Location, dimensions, and use of all existing and proposed structures on the property, including buildings, decks, balconies, fences, walls, and other structural elements that extend into yard areas
- ☒ Location, name, width, and pavement type of adjacent and on-site streets/alleys
- ☒ Existing/proposed curbs, gutters, and sidewalks. Include all points of access, both existing and proposed
- ☒ Types and location of existing/proposed water supply and sewage disposal facilities
- ☒ Location and dimensions of all existing/proposed easements, driveways and parking areas (enclosed or open), including pavement type
- ☒ Location, diameter (at 4 feet above grade), species, approximate canopy cover (dripline) of all trees on the site, noting which will remain and which are proposed for removal, and include proposals for replacement of trees to be removed
- ☒ All areas proposed for grading and landscaping
- ☒ Any areas proposed to be reserved and maintained as open space
- ☒ Location, use and approximate dimensions of all structures within 100 feet of the site's boundaries
- ☒ A vicinity map showing precisely how to drive to the site. (include street names and distances to help with describing how to get to the site)
- ☒ Coastal Access - If the project is within the coastal zone and located between the ocean and the nearest public road, applications shall include the locations of the nearest public access points to the beach
- ☒ Preliminary Floor Plans and Architectural Elevations – showing height of buildings and structures, color, texture and material of exterior finishes and roofing (not required for most agricultural buildings)
- ☒ Elevations – (relative height) from the finish floor of the garage or other parking area to the edge of the pavement or road at the driveway entrance
- ☒ Legal Lot Verification – how the parcel(s) was/were legally created

Land Use – Checklist & Application Package

SUPPLEMENTAL INFORMATION

The following information may be required, depending on your Land Use application type.

If you had a pre-application meeting and any of these items were indicated, they are required for a complete submittal. For applications via the Online Permit Portal, these can be uploaded with your initial application submittal, or later when your full Plan Case has been created.

- ☐ Preliminary Landscaping Plan prepared pursuant to Section 22.16/23.04.180, et seq.
- ☐ Fire Safety Plan prepared pursuant to Section 22.52/23.05.080, et seq.
- ☒ Preliminary grading/drainage plan – when required by Section 22.52/23.05.020 and .040
- ☐ Agricultural buffers – if any adjacent parcels are used for agriculture, show all proposed agricultural buffers
- ☐ Archeological Report – two (2) copies, where required
- ☒ Biological Report – two (2) copies, where required
- ☐ Botanical Report – two (2) copies, where required
- ☐ Building Site Envelopes – on site layout plan show all areas proposed for development, or areas proposed to be excluded from development
- ☐ Noise Study – two (2) copies, if the property either adjoins or will be a noise generator or a potential source of noise
- ☐ Traffic Study – two (2) copies, where required
- ☒ Geological Report – two (2) copies, where required
- ☐ Visual Analysis – for applications that propose development along significant visual corridors (such as Highways 101 and 1)
- ☐ Location, size, design and text of all existing and proposed signs
- ☐ Location and design of solid waste disposal facilities, as required by Section 22.10.150/23.04.280
- ☐ Cross-section drawings. The drawings shall include two sectional views of the project, approximately through the middle and at right angles to each other. The existing and proposed grades and the location of and distances between buildings, parking and landscaping shall also be provided
- ☐ Supplemental Development Statement stating the project's phasing schedule (if one is proposed), and any information that is pertinent or helpful to the understanding of the proposal, such as photos, statistical data, petitions, etc.
- ☐ Water will-serve letter OR Well pump test (4-72 hour)
- ☐ Sewer will-serve letter OR Percolation tests
- ☐ County Public Works road requirements
- ☐ Road Plan and Profile / Culvert Plan and Profile / Streetscape Plan
- ☐ Completed Cost Accounting Agreement – one (1) copy
- ☐ Abandoned oil and gas wells, if applicable – Information is available from the California Division of Oil & Gas: 195 South Broadway, Suite 101, Orcutt, California 93455, (805) 937-7246
- ☐ Other _____



COUNTY OF SAN LUIS OBISPO
DEPARTMENT OF PLANNING & BUILDING
Land Use -- Project Information Form

APPLICATION TYPE – CHECK ALL THAT APPLY

- | | |
|--|--|
| ☐ Emergency Permit | ☐ Site Plan |
| ☐ Tree Removal Permit | ☐ Surface Mining/Reclamation Plan |
| ☒ Minor Use Permit | ☐ Zoning Clearance |
| ☐ Conditional Use Permit/Development Plan | ☐ Amendment to approved Land Use Permit |
| ☐ Plot Plan | ☐ Variance |
| ☐ Curb, Gutter & Sidewalk Waiver | ☐ Other _____ |

TYPE OF PROJECT:

- ☐ Commercial ☐ Industrial
☐ Residential ☐ Recreational ____ Other: _____

Describe any modifications/adjustments from ordinance needed and the reason for the request (if applicable):

This plan is due to storm damage repairs from the 2023 winter storms.

Describe existing and future access to the proposed project site:

Access is through an existing paved road which will be maintained.

SURROUNDING PARCEL OWNERSHIP Do you own adjacent property? ☐ YES ☒ NO

If YES, what is the acreage of all property you own that surrounds the project site?

SURROUNDING LAND USE What are the uses of the land surrounding your property (when applicable, please specify all agricultural uses):

North: Residential South:

Residential

East: Residential West:

Residential

FOR ALL PROJECTS, ANSWER THE FOLLOWING – Square footage and percentage of the total site (approximately) that will be used:

Buildings: 0 sq. feet 0 % Landscaping: _____ sq. feet _____ %

Paving: 1700 sq. feet 1 % Other: _____ sq. feet _____ %

Total area of all paving structures: 1700 ☒ sq. feet ☐ acres

Total area of grading or removal of ground cover: 15,000 sq ft _____ sq. feet _____ acres

Land Use – Project Information Form

Trees:

Number of trees to be removed: 0

Type(s) of tree(s):

Monterey Pines may be impacted, but not planned to be removed

Setbacks:

Front n/a Back n/a Left n/a Right n/a

PROPOSED WATER SOURCE:

☐ On-Site Well ☐ Shared Well Other: _____

Community System (agency / company responsible for the provision of water):

n/a

WILL-SERVE LETTER?

☐ Yes (If yes, please submit copy)
☐ No

PROPOSED SEWAGE DISPOSAL

- ☐ Individual On-Site System
☐ Other: _____
☐ Community System (list the agency or company responsible provision):

n/a

WILL-SERVE LETTER?

☐ Yes (If yes, please submit copy)
☐ No

RESPONSIBLE FIRE PROTECTION AGENCY:

Cal Fire

FOR COMMERCIAL/INDUSTRIAL PROJECTS ANSWER THE FOLLOWING:

Total outdoor use area: _____ sq. feet _____ acres

Total floor area of all structures including upper stories: n/a sq. feet

FOR RESIDENTIAL PROJECTS, ANSWER THE FOLLOWING:

Number of residential units: 0 Number of bedrooms per unit: ☐

Total floor area of all structures including upper stories, but not garages and carports: n/a sq. feet

Total of area of the lot(s) minus building footprint and parking spaces: n/a sq. feet



COUNTY OF SAN LUIS OBISPO
DEPARTMENT OF PLANNING & BUILDING

GEN-3000
04/01/2020

General Application Contact Information

Staff: Input File Number or File Label Here Please check ONLY ONE of the contacts as the 'Primary Billing Contact' to appear on invoices and receipts		PROPERTY OWNER ☒ Primary Billing Contact Name: Al Curtice Company: Pacific Pines HOA Telephone: 805-235-5575 Email Address: a.icurtice@yahoo.com Mailing address: PO Box 972 City: Cambria State: Zip Code:	
APPLICANT ☐ Primary Billing Contact Name: Company: Telephone: Email address: Mailing address: City: State: Zip Code:		AUTHORIZED AGENT ☐ Primary Billing Contact Name: Monte Soto Company: Civil Design Studio, Inc Telephone: 805-234-5210 Email address: monte@civil-studio.com Mailing Address: PO Box 199 City: Cambria State: CA Zip Code: 93428	
PROPERTY INFORMATION Assessor's Parcel Number: 013-124-022 Physical address: Skye St, Cambria Total size, in acres: 3.94 Directions to the property (include landmarks and any gate codes): No Gate Codes. Take Highway 1 north from SLO. Exit North on Burton Drive. Immediate Left on Wilton Dr. Right on Ramsey Rd, and Right on Skye St. Describe current uses on the property (include structures, improvements, and vegetation): Open space easement lot of HOA. No uses exist. Project is required to construct drainage improvements to prevent further damage to large slope which was damaged during the 2023 winter storms. The property has existing concrete drainage swales.			
PROJECT INFORMATION Briefly describe the proposed project (include all uses and building heights and areas, in square-feet) and attach supplemental info as necessary: The project will involve construction of a concrete swale to direct water away from a large slope failure. This is a slight modification of the existing concrete drainage swales which partially failed during the 2023 winter storms. A new storm drain will be constructed to convey drainage down the face of the slope and discharge water at the toe of slope.			

Legal Declaration

I, the owner of record of this property, have completed this form accurately and declare that all statements here are true. I do hereby grant official representatives of the county authorization to inspect the subject property.

SIGNATURE:

DATE: 4/22/2026

NOTE: Your application is public record and information regarding your application is available both in person and online via the Department of Planning & Building. All references to names, addresses, telephone numbers, email addresses and project details are part of this public record. All applications must be filed under the subject property's owner of record; however, you may use an alternate contact address and telephone number.



COUNTY OF SAN LUIS OBISPO
DEPARTMENT OF PLANNING & BUILDING
Environmental Description

The California Environmental Quality Act (CEQA) requires all state and local agencies to consider and mitigate environmental impacts for their own actions and when permitting private projects. The Act also requires that an environmental impact report (EIR) be prepared for all actions that may significantly affect the quality of the environment. The information you provide on this form will help the Department of Planning and Building determine whether your project will significantly affect the quality of the environment.

To ensure that your environmental review is completed as quickly as possible, please remember to:

1. Answer ALL the questions as accurately and completely as possible.
2. Include any additional information or explanations where you believe it would be helpful or where required. Include additional pages if needed.
3. If you are requesting a land division or a re-zoning, be sure to include complete information about future development that may result from the proposed land division or rezoning.
4. Include references to any reports or studies you are aware of that might be relevant to the questions asked or the answers you provide.

Should a determination be made that the information is inaccurate or insufficient, you will be required to submit additional information upon request.

PHYSICAL SITE CHARACTERISTICS			
Acres with 0-10% slopes: 1	Acres with 10-20% slopes: 0.44	Acres with 20-30% slopes:	Acres over 30% slopes: 2.5
Are there any springs, streams, lakes, or marshes on or near the site? ☐ Yes ☒ No If yes, please describe: 		Are there any flooding problems on the site or in the surrounding area? ☒ Yes ☐ No If yes, please describe: <u>The adjacent property is located within a FEMA flood zone.</u> 	
Has a drainage plan been prepared? ☐ Yes ☐ No If yes, please attach a copy.		Has there been any grading or earthwork on the site? ☐ Yes ☒ No If yes, please describe: 	
Has a grading plan been prepared? ☒ Yes ☐ No If yes, please attach a copy.		Are there any sewer ponds/waste disposal sites on or adjacent to the site? ☐ Yes ☒ No If yes, please describe: 	
Are there any railroads or highways within 300 feet of the site? ☐ Yes ☒ No If yes, please describe: 		Can the site be seen from surrounding public roads? ☒ Yes ☐ No If yes, please describe: <u>Main St in Cambria is located to the North</u> 	

Environmental Description

WATER SUPPLY INFORMATION

What type of water supply is proposed?

- ☐ Individual Well ☐ Shared Well
☐ Community Water System

What is the proposed use of the water?

- ☐ Residential ☐ Non-Residential

If non-residential, please describe: n/a

What is the expected daily water demand associated with the project? n/a

How many service connections will be required?

0

Do operable water facilities exist on the site?

- ☐ Yes ☒ No

If yes, please describe: _____

Has there been a sustained yield test on proposed or existing wells?

- ☐ Yes ☒ No

If yes, please attach a copy.

Does Water Meet the Health Agency's Quality Requirements?

- ☐ Yes ☐ No

Bacteriological?

- ☐ Yes ☐ No

Chemical? ☐ Yes ☐ No

Physical? ☐ Yes ☐ No

Water analysis report submitted. ☐ Yes ☐ No

Please check if any of the following have been completed on the subject property and/or submitted to County Environmental Health:

- ☐ Well Driller's Letter
☐ Water Quality Analysis OK Problems
☐ Will-Serve Letter
☒ Other: n/a

- ☐ Pump Test Hours: GPM:
☐ Surrounding Well Logs
☐ Hydrologic Study

SEWAGE DISPOSAL INFORMATION (ON-SITE INDIVIDUAL DISPOSAL SYSTEM)

Has an engineered percolation test been completed?

- ☐ Yes ☒ No

If yes, please attach a copy.

Has a piezometer test been completed?

- ☐ Yes ☐ No

If yes, please attach a copy.

Will subsurface drainage result in the possibility of effluent reappearing in surface water or on adjacent lands, due to steep slopes, impervious soil layers or other existing conditions?

- ☐ Yes ☐ No

Will a Waste Discharge Permit from the Regional Water Quality Control Board be required a waste discharge (typically needed in excess of 2,500 gallons per day)?

- ☐ Yes ☐ No

What is the distance from proposed leach field to any neighboring water wells? _____ feet

Environmental Description

SEWAGE DISPOSAL INFORMATION (COMMUNITY DISPOSAL SYSTEM)

Is this project to be connected to an existing sewer line? ☐ Yes ☒ No
 Distance to nearest sewer line: _____ Location of connection: _____

What is the amount of proposed flow?
n/a (gallons per day)

Does the existing collection treatment and disposal system have adequate additional capacity to accept the proposed flow? ☐ Yes ☐ No

SOLID WASTE INFORMATION

What is the name of solid waste disposal company?
n/a

Where is the waste disposal storage in relation to buildings? _____

What type of solid waste will be generated by the project?
☐ Domestic ☐ Industrial
☐ Agricultural ☐ Other
 If other, please describe: _____

Does your project design include an area for collecting recyclable materials and/or composting materials?
☐ Yes ☐ No

COMMUNITY SERVICE INFORMATION

Name of school district: Coast Unified School District

Are services (grocery/other shopping) within ½ mile of the project?
☒ Yes ☐ No

Location of nearest...
 Police station: _____
 Fire station: Half Mile
 Public transit stop: _____

HISTORIC AND ARCHEOLOGICAL INFORMATION

Describe the historic use of the site:
 This property is the 3.94 ac open space easement for the subdivision. This area remains un-used other than access for weed control for fire suppression annually.

Are you aware of the presence of any historic, cultural, or archaeological materials on the project site or in the vicinity?
☐ Yes ☒ No
 If yes, please describe: _____

Has an archaeological surface survey been done for the project site?
☐ Yes ☒ No
 If yes, please attach two copies.

AGRICULTURAL INFORMATION

If your land is currently vacant or in agricultural production, are there any restrictions on the crop productivity of the land? That is, are there any reasons (i.e., poor soil, steep slopes) the land cannot support a profitable agricultural crop?
n/a

Is the site currently in Agricultural Preserve (Williamson Act)? ☐ Yes ☒ No

Is the site currently under land conservation contract?
☐ Yes ☒ No

Environmental Description

SPECIAL PROJECT INFORMATION

Describe any amenities included in the project, such as park areas, open spaces, common recreation facilities, etc. (these also need to be shown on your site plan):

The property is an open space easement. However, it is not used by the people in the HOA.

Will the development occur in phases?

☐ Yes ☒ No

If yes, please describe: _____

Are there any proposed or existing deed restrictions?

☒ Yes ☐ No

If yes, please describe: Open Space Easement

Do you have any plans for future additions, expansion or further activity related to or connected with this proposal?

☐ Yes ☒ No

If yes, please describe: _____

ENERGY CONSERVATION INFORMATION

Describe any special energy conservation measures or building materials that will be incorporated into your project:

n/a

ENVIRONMENTAL INFORMATION

List any mitigation measures that you propose to lessen the impacts associated with your project:

n/a

Are you aware of any unique, rare or endangered species (vegetation or wildlife) associated with the project site?

☒ Yes ☐ No

If yes, please describe: See project Bio report.

Monterey Pine trees are the main species of interest

Are you aware of any previous environmental determinations for all or portions of this property?

☐ Yes ☒ No

If yes, please describe and provide permit or subdivision numbers(s): _____

OTHER RELATED PERMITS

List all permits, licenses or government approvals that will be required for your project (federal, state, and local):



COUNTY OF SAN LUIS OBISPO
DEPARTMENT OF PLANNING & BUILDING
Information Disclosure Form

Time Limits for Processing and Public Notice Distribution Requirements

California state law (California Government Code Section 65941.5) requires that the County provide the following information to applicants, when a permit application is filed:

- Not later than 30 days after a land use or land division application is received, the county must notify the project applicant or designated representative in writing either that the application is complete, or that items are necessary to complete the application. If you are not notified in writing, the application is considered complete. Any land use or land division application receiving a Negative Declaration must be approved or denied within 60 days of its adoption. If the project is exempt under CEQA, the project must be approved or denied within 90 days of acceptance. For land use/land division applications subject to an Environmental Impact Report (EIR), project approval/denial shall be within six months of the certification of the EIR. The County of San Luis Obispo processes the land use application and the environmental review concurrently, so these decisions are made simultaneously. (Government Code Sections 65943 and 65950, et seq.)
- A project applicant may make a written request to the county to receive notice of any proposal to adopt or amend the general plan and the land use, real property division, building and construction, road name and addressing, and growth management ordinances which might reasonably be expected to affect that applicant's project. The county offers a subscription service for notification of either: (1) all applications received by the county, or (2) Planning Commission agendas. The cost for each of these services is established by the county fee ordinance. (Government Code Sections 65945, 65945.3 and 65945.5)
- When a property was created through recordation of a final or parcel map, and it is within five years of recordation, the county cannot withhold or condition the issuance of building permits for residential units based on conformance with conditions that could have been imposed as conditions of the tentative map, except where: (1) A failure to do so would place subdivision residents or residents in the immediate area in a condition perilous to health, safety or both; or (2) The condition is required in order to comply with state or federal law. (Government Code Section 65961)
- Copies of Government Code Sections are available at the County of San Luis Obispo Law Library, County Government Center, San Luis Obispo, California.

Right to Farm Disclosure

The County of San Luis Obispo recognizes the statewide policy to protect and encourage Agriculture. Sections 3482.5 and 3482.6 of the California Civil Code and Chapter 5.16. of the San Luis Obispo County Code protect certain, pre-existing agricultural production and processing operations ("agricultural operation") from nuisance claims. If your property is near a protected agricultural operation, you may be subject to certain inconveniences and/or discomforts which are protected by law. In order for the agricultural operation to be protected, the following requirements of Civil Code Sections 3482.5 and 3482.6 must be satisfied:

Information Disclosure Form

1. The agricultural operation must be conducted or maintained for commercial purposes;
2. The agricultural operation must be conducted or maintained in a manner consistent with proper and accepted customs and standards as established and followed by similar agricultural operations in the same locality;
3. The agricultural operation predated the affected use(s) on your property; (4) The agricultural operation has been in existence for more than three years; and (5) The agricultural operation was not a nuisance at the time it began.

If your property is near an agricultural operation in the unincorporated area of the County which satisfies the above requirements, you may at times be subject to one or more inconveniences and/or discomfort arising from that operation. Such inconveniences may include (depending upon the type of agricultural operation protected), but are not necessarily limited to, the following: noise, odors, fumes, dust, legal pesticide use, fertilizers, smoke, insects, farm personnel and truck traffic, visual impacts, night time lighting, operation of machinery and the storage, warehousing and processing of agricultural products or other inconveniences or discomforts associated with the protected agricultural operations. For additional information pertaining to this disclosure and the Right to Farm Ordinance, or concerns with an agricultural operation, please contact the San Luis Obispo County Agricultural Commissioner's Office.

Landfill Disclosure

Please answer the following question: "This project is within ½ mile of one of the landfills in the North County planning area (Paso Robles Municipal or Chicago Grade Landfills)" ☐ Yes ☒ No

Acknowledgement

I acknowledge that I have read and understand the sections detailed above:

1. Time Limits for Processing and Public Notice Distribution Requirements
2. Right to Farm Disclosure
3. Landfill Disclosure



Applicant Signature

4/22/2026

Date

Additional Applicant Signature (if applicable)

Date



COUNTY OF SAN LUIS OBISPO
DEPARTMENT OF PLANNING & BUILDING
Land Use Consent of Property Owner

PLN-1012
04/01/2020

Property Address:

Skye St, Cambria, CA

APN(s):

013-124-022

Project Description:

Storm damage repairs. Grading to direct drainage to a slope drain to reduce possibility of future slope failure

CONSENT

I (we) the undersigned owner(s*) of record of the fee interest in the parcel of land located at the above address, identified as the above Assessor Parcel Number, for which a construction permit, land use permit, land division, general plan or ordinance amendment, or LAFCO application referral is being filed with the County requesting an approval for the above project description, do hereby certify that:

1. Such application may be filed and processed with my (our) full consent, and that I (we) have authorized the agent named below to act as my (our) agent in all contacts with the county and to sign for all necessary permit applications in connection with this matter.
2. I (we) hereby grant consent to the County of San Luis Obispo, its officers, agents, employees, independent contractors, consultants, sub-consultants and their officers, agents, and employees to enter the property identified above to conduct any and all surveys and inspections that are considered appropriate by the inspecting person or entity to process this application. This consent also extends to governmental entities other than the county, their officers, agencies, employees, independent contractors, consultants, sub-consultants, and their officers agents or employees if the other governmental entities are providing review, inspections and surveys to assist the county in processing this application. This consent will expire upon completion of the project.
3. If prior notice is required for an entry to survey or inspect the property, please contact:
4. I (we) hereby give notice of the following concealed or unconcealed dangerous conditions on the property (dogs, hazardous materials, or specify none)

CONSENT GRANTOR / PROPERTY OWNER		AUTHORIZED AGENT FOR CONSENT GRANTOR	
Name: Al Curtice	Phone: 235-5575	Name: Monte Soto	Phone: 234-5210
Pacific Pines HOA		Company / Agency: Civil Design Studio, Inc	Email: monte@civill-studio.com
Full Mailing Address: PO Box 972 Cambria, CA 93428		Full Mailing Address: Civil Design Studio PO Box 199 Cambria, CA 93428	
Signature: 	Date: 4/22/2026	Signature: 	Date: 4/22/2026

*attach additional PLN-1012 forms for multiple owners, if applicable



COUNTY OF SAN LUIS OBISPO
DEPARTMENT OF PLANNING & BUILDING

Hazardous Waste and Substances Statement Disclosure

PROJECT TITLE: Pacific Pines HOA Drainage Repair

PROJECT APN(s): 013-124-022

Per Government Code section 65962.5, known as the 'Cortese List' (AB3750), I have consulted the following website resources and lists to determine if the subject property contains hazardous wastes or substances:

- List of Hazardous Waste and Substances sites from Department of Toxic Substances Control (DTSC) EnviroStor database (<http://www.envirostor.dtsc.ca.gov/public/>)
- List of Leaking Underground Storage Tank Sites by County and Fiscal Year from Water Board GeoTracker database (<http://geotracker.waterboards.ca.gov/>)
- List of solid waste disposal sites identified by Water Board with waste constituents above hazardous waste levels outside the waste management unit (PDF). (<http://www.calepa.ca.gov/SiteCleanup/CorteseList/CurrentList.pdf>)
- List of "active" CDO and CAO from Water Board PLEASE NOTE: This list contains many Cease and Desist Orders and Cleanup and Abatement Orders that do NOT concern the discharge of wastes that are hazardous materials. (<http://www.calepa.ca.gov/SiteCleanup/CorteseList/default.htm>)
- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, identified by DTSC (<https://calepa.ca.gov/sitecleanup/corteseList/section-65962-5a>)

After consultation with each of the lists provided on the above websites, I verify that the subject parcel(s) and proposed development (and any alternative development sites, if applicable):

☒ **Is not** included on any of lists found on the above-referenced websites.

☐ **Is** included on one or more of the lists found on the above-referenced websites. Pursuant to Section 65962.5 of the Government Code, the following information is provided related to this site/application:

Name of Applicant: _____

Address of site (street name & number if available, City, State and ZIP Code): _____

Local agency (city/county): _____

Assessor's book, page, and parcel number: _____

Specify any list pursuant to Section 65962.5 of the Government Code: _____

Regulatory identification number: _____ Date of list: _____

Applicant Signature: <i>Monte Soto</i>	Applicant Name (Print): Monte Soto, P.E.
Date of Signature: 04/22/2026	Phone: 805-234-5210
Email: monte@civil-studio.com	

**PACIFIC PINES
DRAINAGE IMPROVEMENTS PROJECT
CAMBRIA, SAN LUIS OBISPO COUNTY, CA
(Portion of Assessor's Parcel Number 013-124-022)
BIOLOGICAL RESOURCES ASSESSMENT**



Prepared for:

Pacific Pines Homeowners Association
P.O. Box 972
Cambria, California 93428

Prepared by:



Kevin Merk Associates, LLC
P.O. Box 318
San Luis Obispo, California 93406

April 21, 2026

AUTHENTICITY AND SIGNATURE PAGE

As a County-approved biologist, I hereby certify that this Biological Resources Assessment was prepared according to the Guidelines established by the County of San Luis Obispo Department of Planning and Building and that the statements furnished in the report and associated maps are true and correct to the best of my knowledge and belief; and I further certify that I was present throughout the site visits associated with this report.



Kevin Merk
Principal Biologist

4/21/26
Date

TABLE OF CONTENTS

	Page
EXECUTIVE SUMMARY	ii
1.0 INTRODUCTION	1
1.1 Project Description	1
1.2. Regulatory Overview.....	4
2.0 METHODS	8
3.0 RESULTS.....	9
3.1 Existing Conditions	10
3.2 Soils.....	11
3.3 Hydrologic Features, Wetlands and Riparian Habitats	11
3.4 Habitat Types.....	13
3.5 Special-status Biological Resources.....	15
4.0 IMPACTS AND RECOMMENDED MITIGATION	32
4.1 Direct and Indirect Effects	32
4.2 Cumulative Effects.....	40
5.0 CONCLUSIONS	41
6.0 REFERENCES.....	41

LIST OF FIGURES

Figure 1 – Site Location Map	2
Figure 2 – Aerial Overview Map.....	3
Figure 3 – Soils Map	12
Figure 4 – Habitat Map.....	14
Figure 5 – CNDDB Plant Occurrences Map.....	16
Figure 6 – CNDDB Animal Occurrences Map.....	19
Figure 7 – Designated Critical Habitat and Sensitive Natural Communities Map	31

APPENDICES

- Appendix A – Site Plans
- Appendix B – List of Plants and Animals Observed Onsite During the Site Visits
- Appendix C – Photo Plate
- Appendix D – Special-status Biological Resources Summary

EXECUTIVE SUMMARY

Kevin Merk Associates, LLC conducted this biological resources assessment (BRA) for the proposed reconstruction of damaged storm drainage features located in Tract 1539, Skye Street, Cambria, in an unincorporated area of San Luis Obispo County, California ("project"; a portion of Assessor's Parcel Number 013-124-022). The project site is northwest of 2105 Skye Street on an undeveloped parcel designated as open space, is within the Coastal Zone, Cambria Urban Reserve Line, and East Lodge Hill neighborhood. The purpose of this BRA is to assist the Pacific Pines Homeowners Association with technical biological resources information for the County of San Luis Obispo's (County's) review of the project under the California Environmental Quality Act (CEQA) for a minor use permit (PRE2024-00095).

The project proposes to upgrade existing storm drainage features that failed during winter 2022-2023, resulting in a large area of slope failure. It would reconfigure and extend existing concrete swales that will discharge into a new upsized storm drain pipe. The goal of the project is to convey stormwater runoff from residential areas on the upslope side of the parcel to the bottom of the slope to protect onsite Monterey Pine Forest habitat from further erosion.

The project site contains disturbed areas including an existing asphalt road, deteriorating asphalt pad, concrete drainage swales and a storm drain pipe. The upper portion of the site near the residences is regularly maintained to remove dead Monterey pine trees, clear dense understory vegetation, and seasonal mowing of weedy grassland in the understory. The lower part of the study area is a steep slope densely vegetated with Monterey Pine Forest. There are no drainages, wetlands or riparian habitats onsite.

One special-status plant, the Monterey pine (*Pinus radiata*) was found during an in-season, focused botanical survey. The background review determined that several other watch list plants had potential to occur on the steep slope in the study area, but that none of these would be within or adjacent to the primary project impact area. Although no native trees are planned for removal, implementation of the project may involve trimming branches or ground disturbance in the critical root zone of native trees. The County through a pre-application meeting determined that replacement ratios are 4:1 for Monterey pines at least six inches in diameter removed (number of trees to be replanted to the number removed); 2:1 for Monterey pines impacted; 6:1 for coast live oak trees at least four inches in diameter removed; and, 3:1 for coast live oak trees impacted.

No special-status animals were observed during the field surveys. Based on the background review and habitat suitability analysis, this investigation determined that a number of special status animals could be present on a seasonal and permanent basis, and recommended mitigation (in the form of pre-construction surveys and avoidance measures) is provided to ensure project activities avoid potentially significant impacts on the California newt, California red-legged frog, southwestern pond turtle, Allen's hummingbird, bald eagle, California horned lark, Cooper's hawk, golden eagle, loggerhead shrike, Nuttall's woodpecker, oak titmouse, wrentit, Monterey dusky-footed woodrat and other protected species of nesting birds.

As proposed and with the incorporation of the recommended mitigation, the project would not result in significant adverse impacts to special status biological resources present or potentially present onsite.

1.0 INTRODUCTION

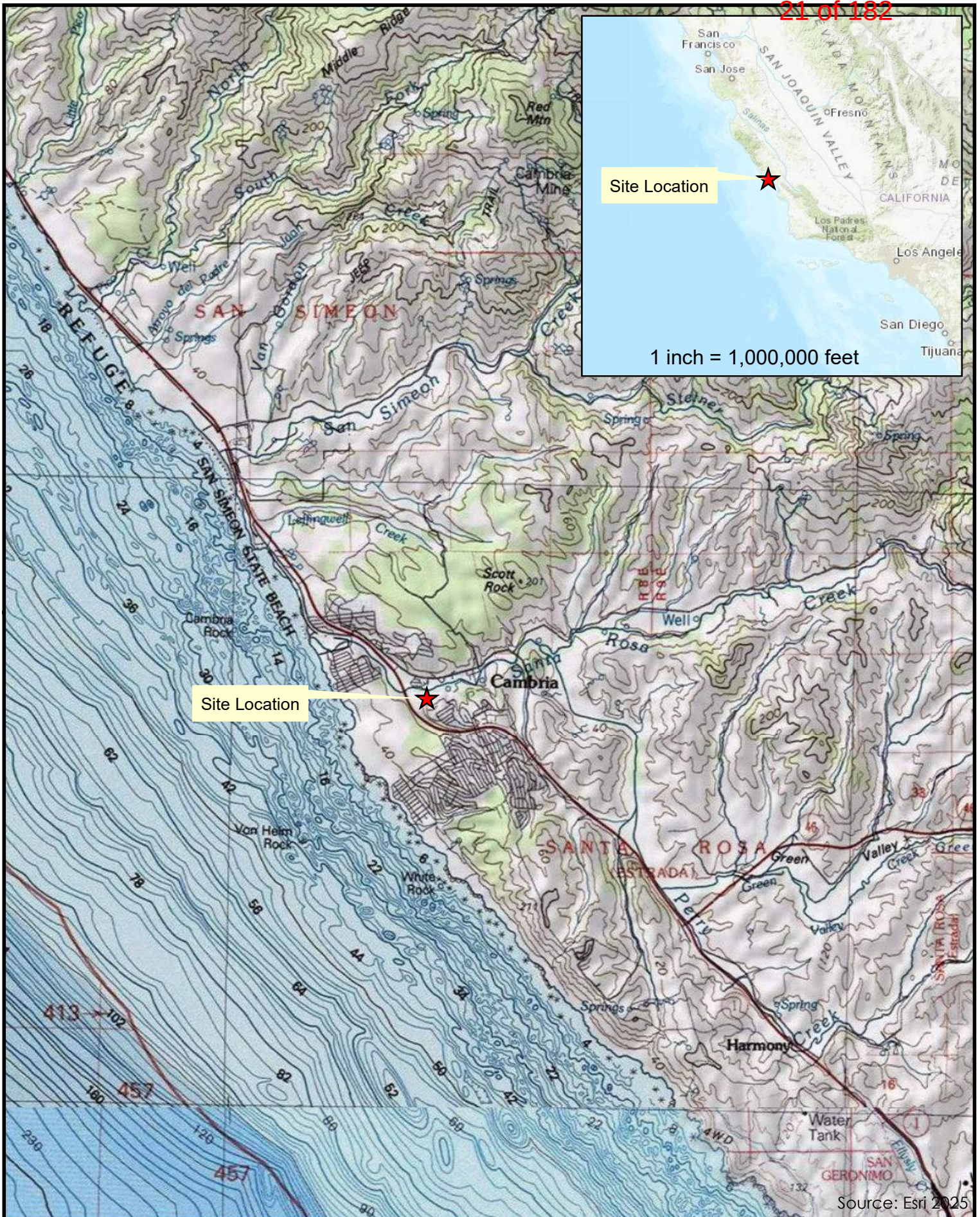
Kevin Merk Associates, LLC (KMA) conducted this biological resources assessment (BRA) for the proposed reconstruction of damaged storm drainage features located in Tract 1539, Skye Street, Cambria, in an unincorporated area of San Luis Obispo County, California ("project"; PRE2024-00095). The project is located on a portion of a 3.94-acre property assigned Assessor's Parcel Number 013-124-022. This site is northwest of 2105 Skye Street on an undeveloped parcel designated as open space. It is on the United States Geological Survey (USGS) Cambria 7.5-minute topographic quadrangle (T 27 S, R 8 E; 35.559173° N, -121.090416° W). Please see Figures 1 and 2 for location information. The property is zoned Rural Single-Family (RSF) and is within the Coastal Zone. It lies within the North Coast Planning Area, Cambria Urban Reserve Line, East Lodge Hill neighborhood, and has a combining designation for Terrestrial Habitat (Monterey Pine Forest).

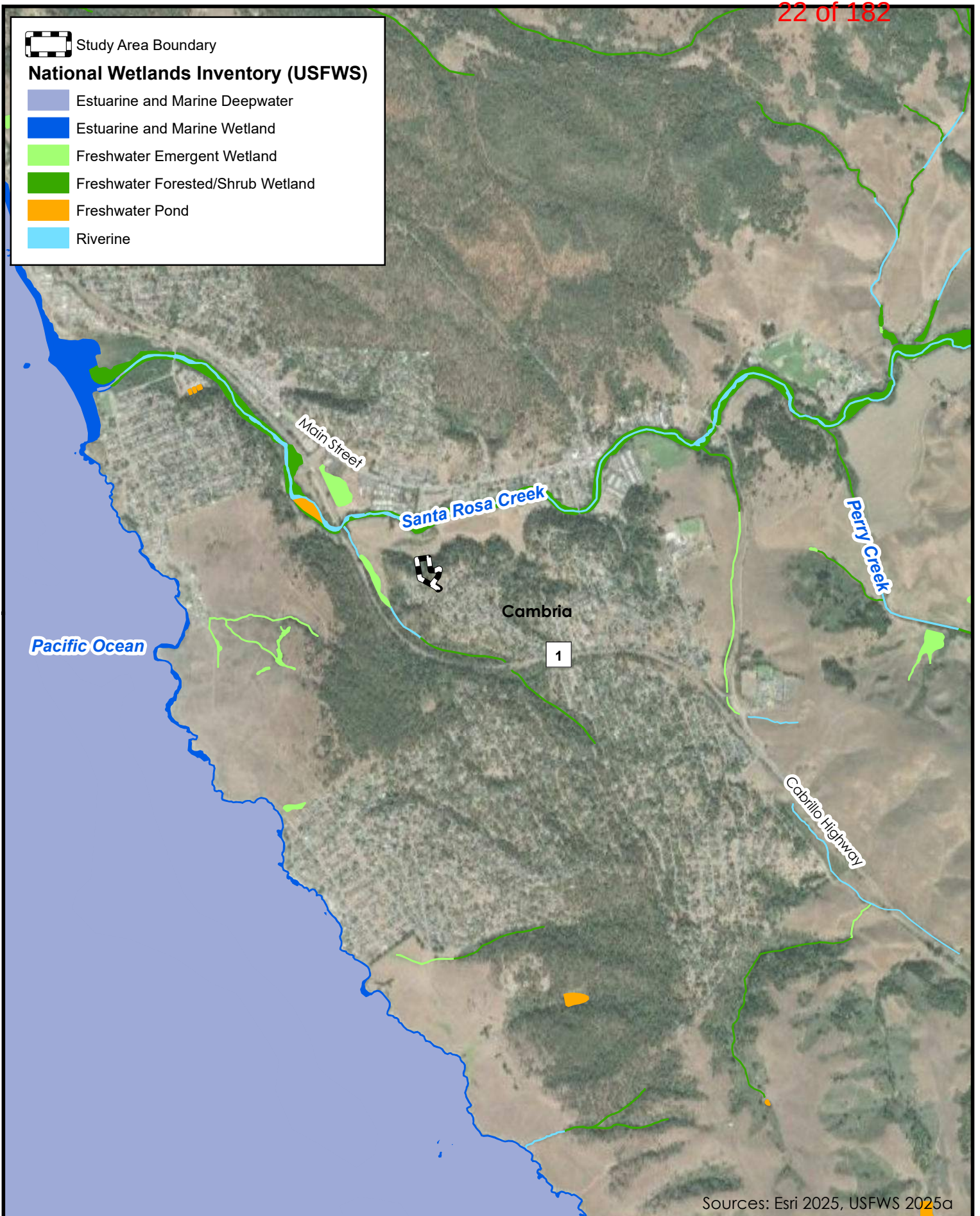
The purpose of this BRA is to assist the Pacific Pines Homeowners Association (HOA) with technical biological resources information in support of an application for a minor use permit from the County of San Luis Obispo Department of Planning and Building (County). This report evaluates the potential for the project site to support special-status biological resources (plants, animals, designated critical habitat, and sensitive natural communities) that could be adversely affected by the project, as required for the County's environmental review of the project under the California Environmental Quality Act (CEQA). For any potentially significant impacts, recommended mitigation measures are provided to avoid or reduce project impacts as defined under CEQA.

1.1 Project Background and Description

The Pacific Pines HOA manages the open space parcel, which is on a slope between the Santa Rosa Creek floodplain and Pacific Pines neighborhood. A series of concrete swales and a storm drain pipe channel surface runoff from the residential areas to the south down the slope. There is also an existing asphalt road that leads from Skye Street to a grassy area within a topographic bowl-like area (also see Section 3.1 for a more detailed description of site conditions). During winter 2022-2023, surface runoff down the asphalt road bypassed the drainage structures and resulted in a large area of slope failure. The proposed project would direct runoff from existing concrete drainage swales into an upsized storm drain pipe that would discharge at the base of the slope, consistent with the current system.

The project would enlarge the upslope side of the confluence of two existing concrete swales, located in the southwest side of the property, to have a flow depth of at least 12 inches by five feet wide (see Site Plan in Appendix A; Civil Design Studio, August 21, 2025). A shallow concrete swale with an integral curb would be constructed below the confluence and would extend to the northeast along the top of the break in slope. Two other existing concrete swales would join it in the northern part of the property where they would jointly discharge into the new storm drain pipe. The shallow concrete swale would have a minimum flow depth of four inches, be offset from the top of the slope by at least five feet, and have a redrock apron on the upslope side. Existing broken asphalt in this area would be demolished and disposed of as needed to construct the new features. The storm drain pipe (18-inches diameter by 190 feet long) would be fused HDPE and placed above ground adjacent to the location of the existing storm drain pipe (which is not planned for removal). The upslope side of the storm drain pipe would have a headwall and slope anchor, and it would discharge onto a new rip rap energy dissipator field. The eroded top of slope area would be stabilized with rip rap (minimum 12-inches rock size) below the confluence of the deep swales and the southern portion of the shallow concrete swale, but otherwise the area of slope failure appears stable and is not proposed for repair at this time.





1.2 Regulatory Overview

1.2.1 Compliance with the California Environmental Quality Act

The CEQA defines a *significant effect on the environment* as “a substantial, or potentially substantial, adverse change in the environment.” Projects that may have significant effects are required to be analyzed in an Environmental Impact Report (EIR). Under CEQA Section 15065, a project’s effects on biotic resources would have a mandatory finding of significance if the project would do any of the following:

- Have 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; or substantially reduce the number or restrict the range of an endangered, rare or threatened species.
- Have the potential to achieve short-term goals to the disadvantage of long-term environmental goals.
- Have possible environmental effects that are individually limited but cumulatively considerable. “Cumulatively considerable” means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

Prior to the public review of an environmental document, if a project proponent agrees to mitigation measures or project modifications that would avoid any significant effect or mitigate to a level below significance, an EIR would not be required. The project proponent would be bound to implement the mitigation measures to reduce the project effects to below a significant level. Mitigation is not required for effects that are less than significant.

If it is not known whether the project may have significant effects, the lead agency will conduct an Initial Study (IS) following *Appendix G* of the *CEQA Guidelines, Section IV Biological Resources*. This checklist includes six additional impacts to consider when analyzing the significance of project effects. A project’s effects on biological resources could be deemed significant if the project would do the following:

- 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 California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS).
- 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 CDFW or USFWS.
- 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.

Each of these factors is evaluated within the IS and determinations are made that the effects fall into one of four categories: 1) no impact; 2) less than significant impact; 3) less than significant with mitigation incorporated; and, 4) potentially significant impact. If significant project impacts cannot be reduced below the threshold of significance through mitigation, an EIR must be prepared.

1.2.2 Special-status Species

For the purpose of this BRA, special-status species are those plants and animals listed, or Proposed or Candidates for listing, as Threatened or Endangered by the USFWS or National Marine Fisheries Service (NMFS) under the federal Endangered Species Act (FESA); federal Birds of Conservation Concern (USFWS 2021); those listed as Rare, Threatened or Endangered under the California Endangered Species Act (CESA); animals designated as “Species of Special Concern,” “Fully Protected,” or “Watch List” by the CDFW; plants considered Endangered or Rare under the California Native Plant Protection Act; and, animals considered Sensitive that do not have a specific listing status but which are recorded in the California Natural Diversity Database (CNDDB; CDFW 2025a) and/or CDFW's (2025b) *Special Animals List*.

FESA provisions protect federally listed species and their habitats from unlawful take, which is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any of the specifically enumerated conduct.” Under these regulations, “harm” may include significant habitat modification or degradation that kills or injures wildlife. Candidate species are not afforded legal protection under FESA; however, Candidate species typically receive special attention during the CEQA environmental review process. CESA provides for the protection and preservation of native species of plants and animals that are experiencing a significant decline which if not halted would lead to a threatened or endangered designation. Habitat degradation or modification is not expressly included in the definition of take under CESA.

Rare plants are those defined as having a California Rare Plant Rank (CRPR) of 1A, 1B, 2A, 2B, 3 or 4 (CDFW 2025c). Rank 4 species are a watch list, and typically do not meet CEQA's rarity definition (Section 15380), but are included here because they may be of local concern. The CRPR definitions are as follows:

- *Rank 1A: Presumed extirpated in California and either rare or extinct elsewhere.* These species are presumed extirpated because they have not been recorded in the wild in California for many years.
- *Rank 1B: Rare, threatened or endangered in California and elsewhere.* Plants that are rare throughout their range and the majority in this rank are endemic to California.
- *Rank 2A: Presumed extirpated in California, but more common elsewhere.* These species are presumed extirpated because they have not been recorded in the wild in California for many years, but they are common outside of the state.
- *Rank 2B: Rare, threatened or endangered in California, but more common elsewhere.* Plants that have ranges that extend into California, where they are rare, but are common in areas outside of the state.
- *Rank 3: Plants needing more information - A review list.* Information necessary to assign the species to one of the lists or reject them is lacking. Most species in this rank are taxonomically unresolved.
- *Rank 4: Plants of limited distribution - A watch list.* Species of limited distribution or infrequent occurrence throughout their range in California but which their vulnerability to extirpation appears low at this time and should be monitored.

Additionally, the CRPR system further assigns threat codes as a decimal extension to the rank, ranging from 1 to 3. CRPR 3 species do not have a threat code due to insufficiency of information needed to assign it, and CRPR 1A and 2A also do not have threat codes because they not know to currently occur in California. The threat code extensions are as follows:

- *0.1: Seriously threatened in California.* More than 80% of occurrences are threatened and there is high degree and immediacy of threat.
- *0.2: Moderately threatened in California.* Approximately 20 to 80% of occurrences are threatened and there is a moderate degree of immediacy of threat.
- *0.3: Not very threatened in California.* Less than 20% of occurrences are threatened and there is a low degree and immediacy of threat, or no current threats are known.

CDFW (2025b) maintains a list of Species of Special Concern for those animal species in which declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction. The goal of designating species as special concern is to halt or reverse their decline early enough to secure their long-term viability. Species of Special Concern may receive special attention during environmental review, but do not have statutory protection. FESA and CESA emphasize early consultation to avoid impacts on Threatened and Endangered species. As part of the consultation process, project proponents are directed to develop appropriate mitigation plans to offset project effects on listed species and their habitats.

Raptors (e.g., eagles, hawks, and owls) and their nests are protected under both federal and state regulations. These birds of prey are protected in California under the California Fish and Game Code Section 3503.5. Disturbance that causes nest abandonment or loss of reproductive effort is considered take by CDFW. Eagles are protected under the federal Bald and Golden Eagle Protection Act. The federal Migratory Bird Treaty Act (MBTA) applies to many bird species, including common species, and prohibits killing, possessing, or trading in migratory birds, including whole birds, parts of birds, bird nests, and eggs. The act restricts construction disturbance during the nesting season that could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Under California Fish and Game Code Section 3503, it is also unlawful to take, possess or needlessly destroy the nest or eggs of any bird.

1.2.3 Designated Critical Habitat

Critical habitat is designated for species listed under FESA, and are areas that contain the physical or biological features which are essential to the conservation of those species and may need special management or protection. A 2018 Supreme Court ruling further defined critical habitat as those areas that provide habitat for the relevant species, exempting areas that are not currently occupied. Critical habitat designations affect only federal agency actions or federally funded or permitted activities. Activities by private landowners are not affected if there is no federal nexus, but biological studies generally address project effects on designated critical habitat when present at a particular project site.

1.2.4 Sensitive Natural Communities

Sensitive natural communities are those native plant communities listed in the CNDDDB (CDFW 2025a) as rare or of limited distribution. They are evaluated using NatureServe's Heritage Methodology to assign global and state ranks based on rarity and threat, and these ranks are reviewed and adopted by CDFW's (2025d) *Vegetation Classification and Mapping Program*

(VegCAMP). Evaluation with the state (S) level results in ranks ranging from 1 (very rare or threatened) to 5 (demonstrably secure). Those with ranks of S1 (Critically Imperiled), S2 (Imperiled) and S3 (Vulnerable) are to be addressed in the environmental review process under CEQA (CDFW 2025c). Currently, the CNDDDB uses the Holland (1986) classification system for community names, but the CNDDDB has not added any new sensitive natural community records since the 1990s because CDFW is switching to using *A Manual of California Vegetation Online* (CNPS 2025a) as the standard classification system and is updated in the CDFW's (2025d) *Natural Communities List*. For Alliances with State Rarity Ranks of S1 to S3, all Associations within them are also considered to be sensitive. The classification system for San Luis Obispo County has not been completed, and Holland types should be used when an appropriate CNPS (2025a) type does not exist (CDFW 2025d).

1.2.5 Compliance with the California Coastal Act

The California Coastal Act of 1976 outlines standards for development within the Coastal Zone, and is umbrella legislation that directs local governments to create Local Coastal Programs (LCPs) to protect coastal resources, enhance public access and balance coastal development in the public interest. An LCP is a land use plan that describes zoning and sensitive resource areas, and is authorized by the California Coastal Commission (CCC) but administered by a local agency. An LCP is composed of a Land Use Plan and an Implementation Plan. The Land Use Plan details the land uses that are permissible in each area under the jurisdiction of the local agency and specifies general policies that apply to each land use, and can be part of the agency's General Plan. The Implementation Plan guides the execution of the policies in the Land Use Plan and is usually part of the agency's zoning code.

California Public Resources Code Section 30107.5 has defined Environmentally Sensitive Areas (ESHA) as "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments." These resources are designated as ESHA within the LCP, and usually include riparian areas, wetlands, maritime chaparral and special-status species habitat. The CCC, with technical assistance from the CDFW, is responsible for protecting ESHA within the Coastal Zone, and has required local agencies such as the County of San Luis Obispo (County) to develop policies aimed at protecting and preserving these areas. The County assumes permit authority in the Coastal Zone based on the adopted and certified *Coastal Zone Land Use Element* (CZLUE) and the *Coastal Zone Land Use Ordinance* (CZLUO). The CZLUO provides policy protecting categorical sensitive biological resources that include: Sensitive Resource Areas (SRAs) and ESHAs; Wetlands, Streams, and Riparian Vegetation; Significant Terrestrial Habitat; and, Marine Habitats (County 2018a). These areas are high priority for preservation, and development proposals requiring a land use permit within or adjacent to these areas are subject to Sections 23.07.160 to 23.07.176 of the CZLUO. Any entity proposing development, land divisions, or activities that change the intensity of land use in the Coastal Zone shall obtain a Coastal Development Permit (CDP). After certification of the LCP has been received, a local government agency (i.e., County) is tasked with issuing CDPs. The CCC has the ability to overrule the decisions of local governments and issue fines to private citizens.

Combining designations are depicted on the Area Plan Maps of the CZLUE to "identify areas of hazards, sensitive resource areas, environmentally sensitive habitats, visitor-serving priority areas, historic and archaeologically sensitive areas, energy and mineral resources, and public facilities" (County 2018b). The purpose of the combining designation standards is to require that proposed uses be designed to protect these sensitive resources to satisfy the requirements of the California Coastal Act. ESHAs are subject to the provisions of Section 23.07.170 of the CZLUO, and are a "type

of SRA where plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and development.” A variety of plant communities within the Coastal Zone meet the definition of ESHA, including riparian areas, wetlands, maritime chaparral and special-status species habitat (Coastal Act Section 30107.5). The *Coastal Plan Policies*, Section 30231, states that the biological productivity and quality of coastal waters, streams, wetlands, estuaries, and lakes shall be maintained and protected (County 2007). In addition to the protection of rare and endangered species, *Coastal Plan Policies* call for the protection of terrestrial environments that represent unique plant habitats supporting endemic, rare or endangered species (County 2007).

2.0 METHODS

This investigation followed the County's (2016) *Guidelines for Biological Resources Assessments*. KMA conducted a desktop review of natural resources databases, maps, literature and online sources to identify special-status biological resources documented from the region that may be present onsite. Time-series aerial photography (Google Earth 2025) and street view photography (Google Maps 2025) were reviewed to obtain information on the history of site conditions and surrounding area. Parcel information and County correspondence during permit review was obtained from *Land Use View* and links to *PermitSLO* (County 2025). The study area was considered to be the project footprint and surrounding area within the parcel.

KMA's Principal Biologist Kevin Merk conducted an initial survey on December 16, 2024 while meeting with the Pacific Pines HOA's representatives and Monte Soto of Civil Design Studio to view the site and discuss the proposed repair. Additional surveys were conducted by Kevin Merk and Susan Christopher, KMA Senior Biologist, on February 16, 2025 and May 15, 2025, and all plant and animal species observed during the surveys were recorded. A spot check of the site was conducted in January 2026 following a rain event to assess site conditions and ground truth habitat information. The weather during the surveys was generally clear with westerly winds and air temperatures ranging from 50 to 60 degrees Fahrenheit (°F). Plant taxonomy followed the Jepson Flora Project (2025) with additional information on common names obtained from *Information on Wild California Plants* (Calflora 2025). Habitat types, representing land use and plant communities, were mapped using ArcGIS on ESRI (2025) aerial imagery to create a habitat map. Land use types followed *A Guide to Wildlife Habitats in California*, which is updated through the California Wildlife Habitat Relationships (CWHR) System (CDFW 2025e). Plant communities were characterized following *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986), *A Manual of California Vegetation Online* (CNPS 2025a), and *VegCAMP* (CDFW 2025d). Plant communities were determined as to whether they met the criteria of sensitive natural communities. Representative photographs of the habitat types and existing conditions within the study area were compiled into a photo plate.

The *Web Soil Survey* (Natural Resources Conservation Service [NRCS] 2025) was used to identify the soil mapping units present within the study area. The *National Wetlands Inventory* (NWI) was reviewed to evaluate the extent of identified wetlands on the site and in the vicinity (USFWS 2025a). USGS topographic maps were also reviewed for information on hydrologic and topographic features.

A query of the CNDDDB was conducted to identify occurrence records of special-status biological resources (plants, animals and sensitive natural communities) documented within the vicinity of the project site. This search included the Cambria USGS 7.5-minute quadrangle in which the project is located and the surrounding quadrangles: Pico Creek, San Simeon, Pebblestone Shut-in, Lime Mountain, Cypress Mountain and Cayucos. Species that occur within the San Luis Obispo County

north coast and foothills, as well as each species recorded in the CNDDDB within five miles, were considered to be within the project vicinity. Other species from the seven-quadrangle search that have limited distributions restricted to coastal beaches, higher elevations of the Santa Lucia Range, and inland areas such as Lake Nacimiento, were considered to be outside of the project vicinity and were not evaluated further unless there were records within five miles. CNDDDB records of special-status plant and animal occurrences within the five-mile buffer of the study area were mapped. Online sources of species occurrence records (i.e., Calflora 2025, The Cornell Lab of Ornithology 2025a, iNaturalist 2025, CDFW 2025f), and unpublished biological survey reports from the local area (Rathbun et al. 1991, Nelson 2005, Morro Group SWCA Environmental Consultants 2009, Stillwater Sciences et al. 2012) were incorporated into the species table. For the list of special-status species identified in the search, local distribution and ecological information was obtained from a variety of online and published sources (Jennings and Hayes 1994, Bolster 1998, Moyle et al. 2015, Thomson et al. 2016, Audubon 2025, Calflora 2025, CNPS 2025b, California Herps 2025, The Cornell Lab of Ornithology 2025a, 2025b; CDFW 2025e). Designated critical habitat for species listed under FESA was identified and mapped within a five-mile buffer based upon information provided in *Environmental Conservation Online System* (USFWS 2025b) and the *West Coast Region Endangered Species Act Critical Habitat Geodatabase* (NMFS 2025).

Within the resulting table of special-status species known from the project vicinity, an evaluation of the potential for each species to occur in the study area was performed based upon the suitability of habitat conditions on the property and the local distribution (geographical and elevational ranges) and specific requirements (plant communities and soils) of the species. We relied on existing information and known occurrence records in the region coupled with our site-specific observations from other locations in the northern coastal San Luis Obispo County region to make determinations for the probability of occurrence. Those species considered as "Potential" met the following requirements: records in the site vicinity, appropriate plant community and/or soil associations onsite, and the site within the elevational range of the species. If any one of these elements was not met or considered to be marginal for the site, but the other elements were present, that species was considered "Unlikely". If onsite environmental conditions were clearly inappropriate or the species has a limited distribution that does not overlap the site, those species were considered "Not Expected". For animal species, if the onsite conditions met the requirements of any lifestage or particular life history use (i.e., foraging) while other aspects were inappropriate for certain functions (i.e., breeding), these species were considered to have Potential to occur and the likelihood of their occurrence onsite is summarized in the table and analyzed fully with regard to species ecology in the text. Any special-status species observed during the surveys were listed as "Present" in the species table (Appendix D).

We determined whether special-status plant and animal species, designated critical habitat, and sensitive natural communities could or do occur in the study area. Potential impacts of the proposed project were evaluated for each of these biological resource issues, including the six additional impacts in CEQA Appendix G, as amended. An evaluation of adverse effects as defined under CEQA is provided for each potential impact, and mitigation is proposed to reduce any potentially significant impacts.

3.0 RESULTS

A list of plants and animals observed during the surveys is provided in Appendix B. A plate of photographs taken during the site visits to characterize onsite conditions and habitat types is provided in Appendix C. Appendix D is a summary of all special-status species, designated critical habitat, and sensitive plant communities recorded within the site vicinity, and our evaluation of their potential for occurrence onsite. Figure 1 is a site location map and Figure 2 is an aerial

overview map with wetland habitats recorded in the NWI. Figure 3 is a soils map and Figure 4 is a habitat map of the study area showing the area occupied by each of the habitat types. Figures 5 and 6 show the locations of special-status plant and animal species, respectively, recorded in the CNDDDB within five miles of the study area. Designated critical habitat and sensitive natural communities are shown in Figure 7.

3.1 Existing Conditions

The project site is in the California Central Coast region within the coastal area of northern San Luis Obispo County. It is located at the western edge of the southern Santa Lucia Mountain Range where a series of foothills and marine terraces are bisected by coastal streams. The study area is to the south of the lower Santa Rosa Creek floodplain and 0.8-mile east of the Pacific Ocean. It is within the urban limits of Cambria southwest of East Village. The region has a Mediterranean climate with cool, moist winters, and somewhat warm summers regulated by the cool Pacific Ocean with little to no rain, but having frequent coastal fog. The temperature in Cambria typically varies from 46°F to 69°F, and is rarely below 40°F or above 78°F (Weather Spark 2025). During the water year in which the survey was conducted (July 1, 2024 to May 16, 2025), Cambria received 17.52 inches of rain, which was 60% of the average annual rainfall (22 inches; Santa Rosa at Main sensor [716]; County of San Luis Obispo Department of Public Works 2025). Elevations range from approximately 61 feet (19 meters) at the base of the slope on the north side of the study area to 216 feet (66 meters) where the old road intersects Skye Street in the southeastern part of the study area.

The project site is located between residential development to the south and the 430-acre Fiscalini Ranch Preserve immediately to the north and east. The residential area was originally developed as housing for the Cambria Air Force Station and subsequently became the Pacific Pines residential area. The old asphalt road, existing concrete swales and storm drain pipe have been in place for many years, and the bowl-like topographic area has been used by residences for recreation. The site is on a hillside that slopes northerly toward the Fiscalini Ranch Preserve. The portion of Fiscalini Ranch Preserve to the east of Highway 1 (aka the East Ranch) occupies the floodplain on the south side of Santa Rosa Creek. The preserve is dedicated open space and used for passive recreation, and there are a series of hiking trails that lead from the village of Cambria to the ocean bluff and terrace on the west side of Highway 1.

The study area is an undeveloped parcel designated as open space. It is located on a slope vegetated by Monterey Pine Forest and a flatter bowl-like topographic area that supports grasses and herbaceous plants in the shady understory. The Monterey Pine Forest on the steep slope is outside of areas mapped as native Monterey Pine Forest in the CNDDDB (CDFW 2025a) and the *Cambria Forest Management Plan* (Cambria Forest Committee 2002) likely because it is fragmented by surrounding development. The only developed features in the study area are the old asphalt road that accesses Skye Street and runs about half-way down the slope to a terrace, and drainage features that run down the slope.

The residential development along Skye Street does not appear to have a storm drain system. Surface runoff from the east end of Skye Street runs down the road and is contained by curbs along the street, then apparently runs down the old asphalt road in the study area to the old storm drain pipe. There is a concrete-lined ditch along the southwestern side of the old road in which the runoff is directed downslope toward the storm drain pipe. Another concrete swale drains runoff from behind residences on the northern end of Ramsey Road and joins the roadside concrete swale, which continues down the slope in the western edge of the study area. Several other concrete ditches direct surface runoff from behind the residences on Skye Street to the storm drain pipe.

Excessive runoff during the winter storms of 2022-2023 overtopped the concrete swales and caused the erosion on the hillside. In the interim period, the Pacific Pines HOA installed lines of sandbags to direct runoff into the roadside swales and to the storm drain pipe. The storm drain pipe is approximately 90 feet long and discharges on the bottom of the slope where surface runoff sheet flows toward Santa Rosa Creek. The erosion feature is approximately 60 feet wide and several feet deep. Eroded material was deposited at the base of the slope, and can be seen in the April 22, 2023 Google Earth (2025) aerial photograph. The entire area is undergoing regrowth from a mix of plant species.

The understory of the Monterey Pine Forest (described in Section 3.4.1 below) in the upper bowl portion below the residences has been maintained as Non-native Grassland (described in Section 3.4.2 below). Non-native, ornamental plant species are also present throughout the study area as part of the overall landscaping of the site and the surrounding residences. Scattered Monterey pines (*Pinus radiata*) are present throughout the site, including a number of dead pine trees from pitch canker. Some of the dead pines have been cut down and the larger trunks remain laying on the ground, and many have fallen into the erosion gully likely during the large storm event. Non-native Grassland species have also grown across the disturbed soils in the gully. Due to the amount past development and ongoing disturbance from maintenance activities that affect native vegetation, the upper bowl-terrace portion of the study area would be considered to be largely disturbed.

3.2 Soils

The study area is comprised almost entirely of San Simeon clay loam, with 2 to 9 percent slopes in the southeastern part along the road, and most of the site has 30 to 50 percent slopes (Figure 3). This soil forms on hills and is residuum weathered from sandstone (NRCS 2025). It is a sandy loam with an underlying clay layer and weathered bedrock below (NRCS 2025). Its runoff class is High and it is not rated as a hydric soil (NRCS 2025). A very small area that falls within the study area at the base of the slope is Marimel silty clay loam, drained (Figure 3). Observations in the field were of sandy loam soils with a well exposed profile observable within the erosion feature.

3.3 Hydrologic Features, Wetlands and Riparian Habitats

The project site is in the watershed of Santa Rosa Creek, which runs through the Fiscalini Ranch Preserve 0.1-mile (600 feet) north of the study area (Figure 1). The watershed encompasses 48 square miles and the creek has a distance of 16 miles from its headwaters to the Pacific Ocean at Moonstone Beach Park (Stillwater Sciences et al. 2012). It originates in the southern Santa Lucia Range, and the village of Cambria is located just downstream from two of its major tributaries — Perry and Fiscalini creeks. Santa Rosa Creek flows from east to west behind the businesses along Main Street in the East Village, and is bordered by a relatively narrow band of riparian habitat. A level floodplain area is to the south and is upland grassland in an area that was historically cleared for cattle grazing or farming, and aerial photography shows plow furrows or mowing as recently as 2021. Land use changes in the watershed have resulted in the incision of the Santa Rosa Creek channel which has reduced inundation of the floodplain that formerly supported riparian forest (Stillwater Sciences et al. 2012). The Santa Rosa Creek Trail runs through the floodplain and the surrounding area is managed by the preserve.



Study Area Boundary

NRCS Web Soil Survey



Marimel silty clay loam, drained



San Simeon sandy loam, 2 to 9 percent slopes



San Simeon sandy loam, 30 to 50 percent slopes



Sources: Esri 2025, NRCS 2025



KEVIN MERK ASSOCIATES



1 inch = 100 feet

Pacific Pines Drainage Improvements Project

Pacific Pines Homeowners Association

Figure 3

Soils Map

There are no natural drainages or wetland habitats within the study area. It is located on a slope above the Santa Rosa Creek floodplain, and the concrete ditches do not appear to be in the location of any historic natural drainage features. The NWI (Figure 2) and USGS (1959) topographic map do not depict any drainages in the area, but there are topographic swales shown along the slope that are likely remnant of when Santa Rosa Creek overtopped its banks. The concrete swales and the existing pipe discharge at the base of the slope and then runoff sheet flows over the floodplain toward the creek. A narrow band of riparian vegetation (Freshwater Forested/Shrub Wetland; Figure 2) is along Santa Rosa Creek at least 415 feet (126 meters) to the north.

3.4 Habitat Types

Three plant communities or land use types were identified within the study area: 1) Monterey Pine Forest, 2) Non-native Grassland, and 3) Ruderal. Each of these habitat types is described below and a complete list of species observed during the surveys is in Appendix B. The areas occupied by these habitat types are shown on Figure 4 and representative photographs are in Appendix C.

3.4.1 Monterey Pine Forest

Mature Monterey pine trees (*Pinus radiata*) form the canopy over most of the study area, and lace lichen (*Ramalina menziesii*) hangs on the branches. The forest understory has been cleared on the slope below the residences and in a terrace-bowl like feature about half-way down. Several coast live oak (*Quercus agrifolia*) trees and toyon (*Heteromeles arbutifolia*) shrubs are also present in the area. Non-native Grassland (described in Section 3.4.2 below) has become established throughout the open understory. The pine trees have been limbed as part of fuel management activities, and dead trees have been cut with some of the trunks left on the ground. No significant recruitment of young pines were observed in the study area. Dense understory plant species are on the slope between the terrace and the Santa Rosa Creek floodplain, consisting of poison oak (*Toxicodendron diversilobum*), California blackberry (*Rubus ursinus*), Cape ivy (*Delairea odorata*; California Invasive Plant Council [Cal-IPC; 2025] rating "High"), California brome (*Bromus sitchensis* var. *carinatus*), California oat grass (*Danthonia californica*), smooth cat's-ear (*Hypochaeris glabra*; Cal-IPC Limited), English plantain (*Plantago lanceolata*; Cal-IPC Limited), Bermuda buttercup (*Oxalis pes-caprae*; Cal-IPC Moderate), and sheep sorrel (*Rumex acetosella*; Cal-IPC Moderate). There is also a high number of fallen trees on the slope, many of which accumulated in the erosion scar. This habitat type corresponds to the Monterey Pine Forest community (Holland 1986) and the Bishop Pine - Monterey Pine Forest and Woodland alliance (CNPS 2025a).

3.4.2 Non-native Grassland

Non-native Grassland habitat onsite was present under the canopy and in openings within the Monterey Pine Forest in the upper bowl-like topographic area. These areas are regularly mowed and maintained as part of the fuel modification activities, as well as to promote recreational activities. The area was dominated by non-native grasses including ripgut brome (*Bromus diandrus*; Cal-IPC Moderate), soft chess (*Bromus hordeaceus*; Cal-IPC Limited), slender wild oat (*Avena barbata*; Cal-IPC Moderate), Bermuda buttercup, Italian thistle (*Carduus pycnocephalus*; Cal-IPC Moderate), reed nettle (*Festuca arundinacea*; Cal-IPC Moderate), prickly sow thistle (*Sonchus asper*) and rattlesnake grass (*Briza maxima*). California hedge nettle (*Stachys bullata*), and escaped ornamental iris (*Iris* sp.) were also present. This habitat type would fall under the Non-Native Grassland community (Holland 1986) and the Wild Oats and Annual Brome Grasslands semi-natural alliance (CNPS 2025a).


Study Area Boundary


Erosion Area

Habitat Types


Monterey Pine Forest


Non-native Grassland


Ruderal



Source: Esri 2025

3.4.3 Ruderal

Ruderal area onsite included the paved road and adjacent concrete swale, and an area with broken pavement on the terrace. Weedy species were growing in the cracks in the pavement, such as cudweed (*Gnaphalium* sp.), and other weedy species such as Bermuda buttercup were also growing along the road shoulder. Ornamental trees and shrubs were along the paved road associated with the offsite residences. This habitat type is not represented by a natural plant community and would be classified as the Urban and Barren habitat types in the CWHR (CDFW 2025e).

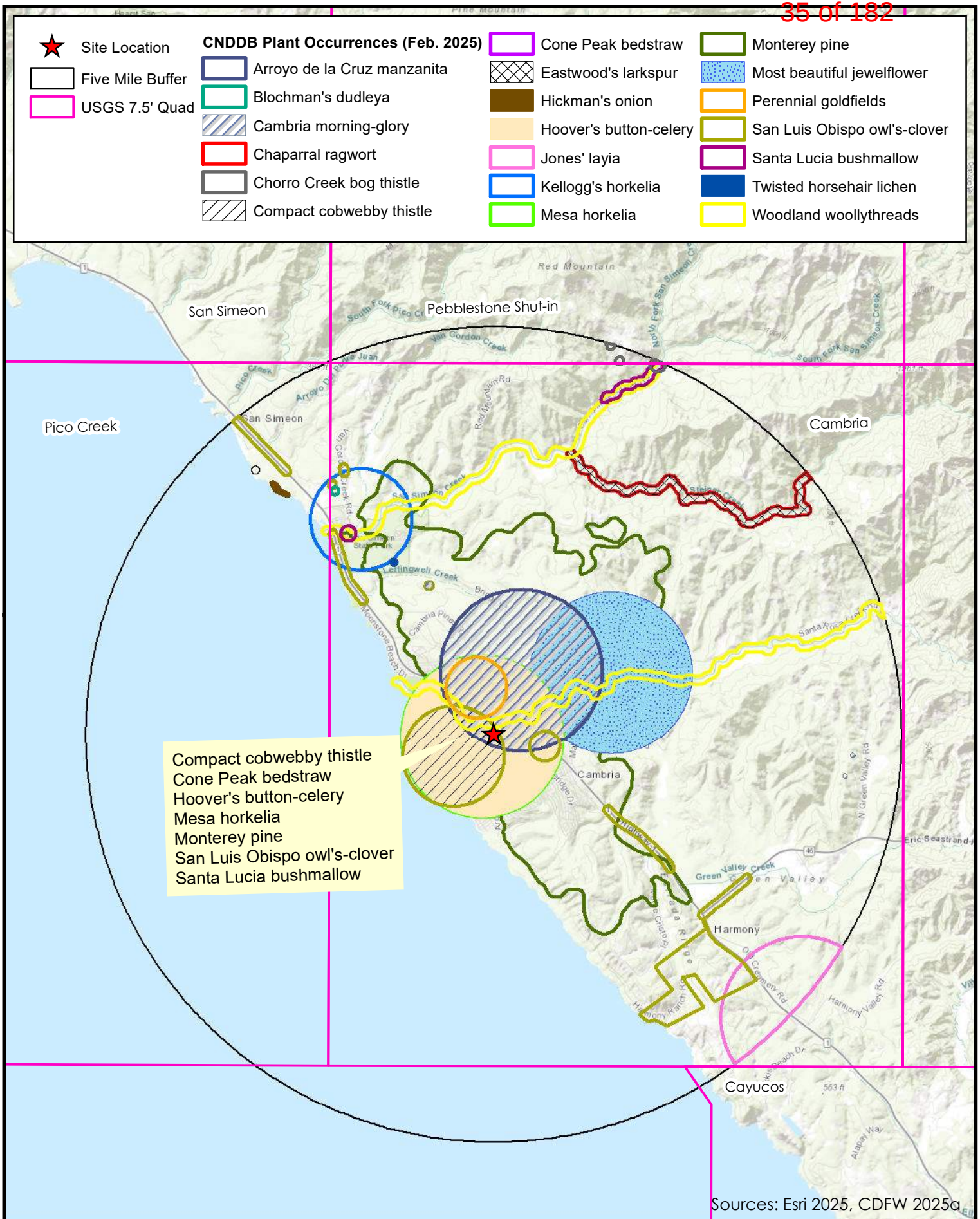
3.5 Special-status Biological Resources

The seven-quadrangle CNDDDB search produced a 292-page report of special-status species (50 plant/lichen and 23 animal species) and sensitive natural community records (2 communities), which is a relatively low number in comparison to searches for other areas of the county and the Central Coast region in general. Species restricted to mountainous areas of the Santa Lucia Range or inland habitats were excluded from the species table unless there were records within five miles (Figures 5 and 6). A number of species are associated with specific soil types (i.e., serpentine or clay) or plant communities (i.e., dune scrub, chaparral) that do not occur in the study area, and those species are included in the species table in Appendix D along with an evaluation of habitat suitability pertaining to onsite conditions. Species that were determined to have Potential to occur in the study area based upon known range and ecological information and the existing conditions onsite are described in further detail below.

3.5.1 Special-status Plants

During the surveys, one special-status plant species, the Monterey pine, was observed onsite. Varying age class Monterey pine trees were present throughout the study area, with some older trees in moderate to poor health due to pitch canker. The majority of the study area was walked during the surveys, with the exception being parts of the steep slope covered in dense vegetation and poison oak. The field work confirmed the Ruderal, Non-native Grassland and southern Monterey Pine Forest does not support other herbaceous rare plants that are known to occur in the region. The steep slope has the potential to support several rare plants, beyond the Monterey pines. Given the steep slope and dense vegetation, the potential for these species is lower, but cannot be ruled out based on the presence of suitable Monterey Pine Forest habitat. The species with potential to occur on the steep slope are as follows.

Cambria morning-glory (*Calystegia subacaulis* ssp. *episcopalis*), also called San Luis Obispo County morning-glory, has a CRPR of 4.2. It is a perennial rhizomatous herb in the family Convolvulaceae that occurs in chaparral, cismontane woodland, coastal prairie and valley and foothill grassland habitats, usually on clay soils (CNPS 2025b), but may also occur on loam soils. The stems are trailing or weakly twining and the leaves are triangular and minutely hairy. Its flowers are cream-colored and funnel-shaped, blooming from March until July. By late summer the above-ground parts of the plant die back and only the seeds and roots persist through the dry season. It is relatively widely distributed in San Luis Obispo County, occurring along the north coast, Santa Lucia Range, and from Morro Bay and Los Osos inland through the vicinity of San Luis Obispo with disjunct records from Arroyo Grande and Nipomo extending into northwestern Santa Barbara County and scattered disjunct records in the larger Bay Area (Calflora 2025, CDFW 2025a). The type locality is from Cambria (Occurrence No. 5; CDFW 2025a). It has been recorded at the east and west Fiscalini Ranch Preserve and near Camp Ocean Pines (Morro Group SWCA Environmental Consultants 2009, Calflora 2025). This species was considered to have Potential to occur in the grassland openings.



Gairdner's yampah (*Perideridia gairdneri* ssp. *gairdneri*) has a CRPR of 4.2 and is in the family Apiaceae. It is a perennial herb that occurs in broadleafed upland forest, chaparral, coastal prairie, valley and foothill grassland, and vernal pool habitats (CNPS 2025b). It occurs from sea level to 610 meters (2,000 feet) in elevation and blooms from June to October (CNPS 2025b). It has a wide range in the state and is found in most mountain and foothill regions (Calflora 2025). Within San Luis Obispo County, it occurs in the Santa Lucia Range from Ragged Point to Santa Rita Creek (Calflora 2025). It has been recorded east of Cambria (Calflora 2025) and on the western Fiscalini Ranch Preserve within Monterey Pine Forest (Morro Group SWCA Environmental Consultants 2009). The grassland understory is potentially suitable for this species.

Michael's rein-orchid (*Piperia michaelii*) has a CRPR of 4.2 and is a perennial herb in the family Orchidaceae. It occurs in coastal bluff scrub, closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub and lower montane coniferous forest communities below 915 meters in elevation (CNPS 2025b). It has a fleshy spike with minute but fragrant yellow-green flowers, and blooms from April to August (Keil and Hoover 2022). This species is widely distributed in the state, occurring along the coast from Point Reyes to Long Beach, inland to Walnut Creek, and scattered locations in the western Sierra Nevada foothills and northwest coast of the state (Calflora 2025). Within San Luis Obispo County, it is found on sandy soils from Cambria to Arroyo Grande and in oak woodland at Lake Nacimiento and Santa Margarita Ranch (Keil and Hoover 2022). The Monterey Pine Forest and sandy loam soils onsite are potentially suitable.

Monterey pine (*Pinus radiata*) is considered to be a CRPR 1B.1 species within its native range. This species is a perennial evergreen tree in the family Pinaceae. It occurs in closed-cone coniferous forest and cismontane woodland (CNPS 2025b), within the Monterey Pine Forest community, which is limited to the summer fog zone and occurs on well-drained sandy soils (Holland 1986). Monterey Pine Forest occurred along extensive areas of the California coastline during the Pleistocene, but currently only five fragmented stands exist (Lanner 2002). The largest natural stand is in the Monterey Peninsula, and it also occurs at the Año Nuevo-Swanton area (Lanner 2002). In San Luis Obispo County, Monterey Pine Forest covers an extensive area around Cambria, a stand near Pico Creek, and a small stand of three remnant trees east of Avila at Ontario Grade (Keil and Hoover 2022). Native Monterey Pine Forest also occurs on Guadalupe and Cedros islands off Baja California. Monterey pine trees have been planted extensively throughout the world for use as lumber, and is also a common landscape tree in the Central Coast area. Monterey Pine Forest occupies about 2,300 acres in areas that remain undeveloped around Cambria, and intergrades with developed areas on an additional 1,200 acres (Cambria Forest Committee 2022). Stands of Monterey pine are threatened by pine pitch canker, a disease introduced in the late-1980s from the southeastern United States, and many of the trees in the Cambria area have succumbed to drought, disease and insect infestation between 2011 and 2015 (Keil and Hoover 2022). Bark beetles contribute to the decline of infected trees and typically kill the more seriously infected. Additionally, Monterey pines are threatened by habitat conversion, soil erosion, invasive exotic plants, and genetic contamination by planting hybridized nursery stock. Fire suppression also negatively affects their reproduction because the cones open and release their seeds in response to fires. The study area is within a mapped CNDDDB occurrence of Monterey pine trees consisting of approximately 2,300 current acres (Occurrence No. 1; CDFW 2025a). The soils and topography of the site are suitable, and it was the dominant species in the Monterey Pine Forest habitat type described in Section 3.4.1.

Saint's daisy (*Erigeron sanctarum*) has a CRPR of 4.2 and is in the family Asteraceae. It is a perennial rhizomatous herb that occurs in chaparral, cismontane woodland and coastal scrub habitats (CNPS 2025b). It has lavender ray flowers and yellow to orange disk flowers. Its

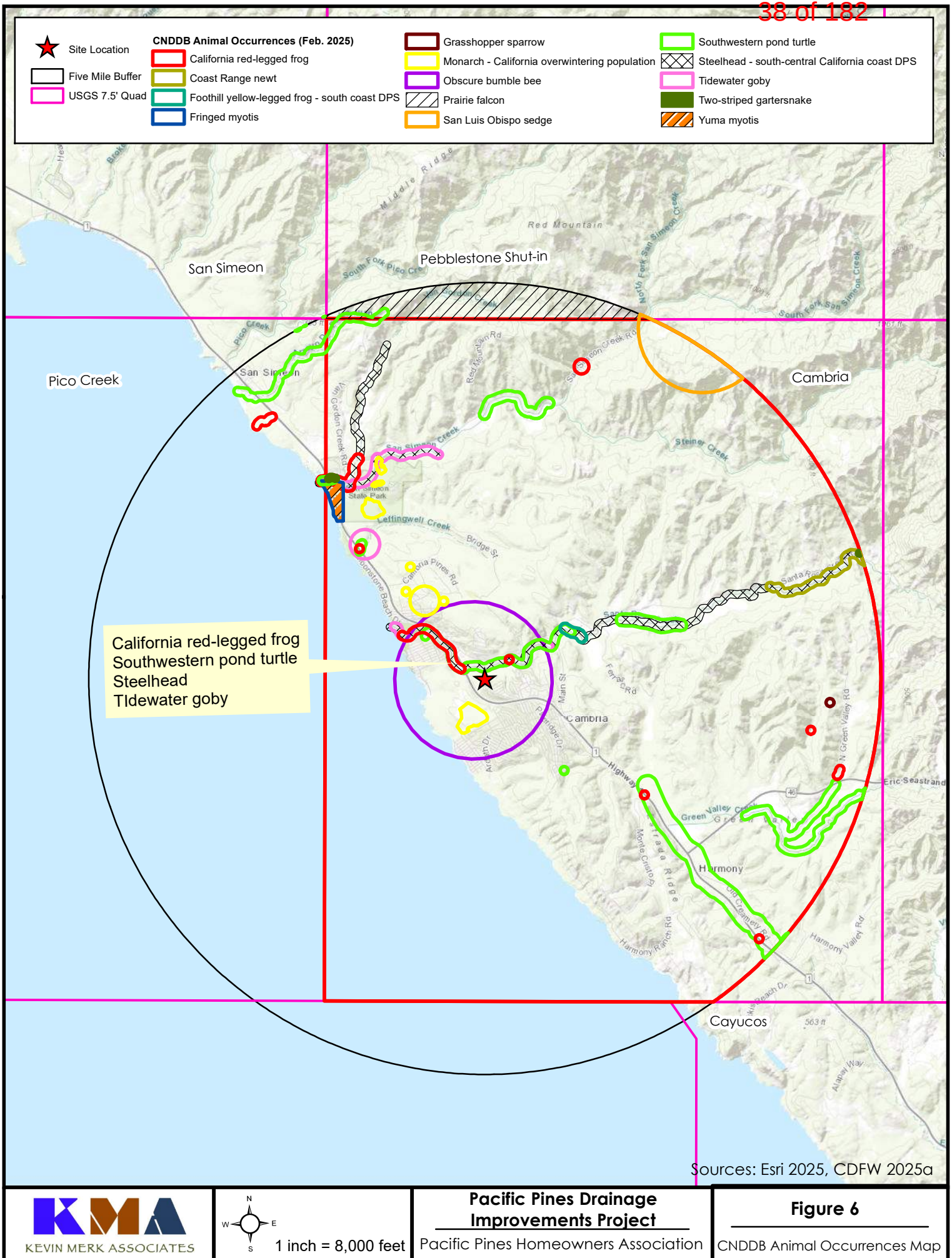
elevational range is from 75 to 350 meters (245 to 1,150 feet) and it blooms from March to July (CNPS 2025b). Its geographic range is western San Luis Obispo and Santa Barbara counties and Santa Cruz Island (Calflora 2025). Within San Luis Obispo County, it occurs along the coast north from Cambria, and there are disjunct records at Montana de Oro and Corbitt Canyon (Calflora 2025). This species was observed at the Fiscalini Ranch Preserve on or near Monterey Pine Forest habitat (Morro Group SWCA Environmental Consultants 2009). It could occur throughout the understory of the site.

3.5.2 Special-status Animals

No special-status animals were observed during the site surveys, but based upon our background review of special-status species records and the presence of suitable habitat, a total of two invertebrate, three amphibian and reptile, nineteen bird, and nine mammal species were considered to have "Potential" to occur on the study area. The listing status, habitat associations and evaluation of occurrence of the species recorded in the project vicinity are summarized in Appendix D, and a map of CNDDDB animal records within five miles of the study area is provided in Figure 6. The species that were determined to have Potential to occur are described in further detail below.

Monarch - California overwintering population 1 (*Danaus plexippus plexippus*) has been Proposed as a Threatened species under the Endangered Species Act. This butterfly undertakes multi-generational migrations of thousands of miles (Center for Biological Diversity et al. 2014). In the late summer, the butterflies leave Canada and the northern United States to their overwintering habitat on the south-central California/Baja California coast or mountains of central Mexico. "Population 1" of the species refers to those that overwinter in California, historically ranging from northern Mendocino County through San Diego County. They roost colonially during the winter in protected groves of blue gum eucalyptus, Monterey pine and Monterey cypress (USFWS 2020). The groves provide indirect sunlight, source of moisture, protection against freezing temperatures, and protection from strong winds and the coastal locations have a mild climate (USFWS 2020). These colonial roost sites are occupied by large numbers of butterflies throughout the winter and the individual sites are generally reused each year. The butterflies cluster together at the roost sites, which have specific microclimates that keep them cool enough to conserve lipid reserves but do not reach freezing temperatures (Center for Biological Diversity et al. 2014).

Overwintering is the most vulnerable element in the monarch life cycle, and over the past 30 years the overwintering population has declined by at least 95% (Schultz et al. 2017). "Autumnal sites" are temporary sites used for roosting that do not persist through the winter and may not be used every year. During the spring and summer, they disperse throughout the United States and southern Canada (Center for Biological Diversity et al. 2014). Adults nectar on a variety of blooming plants, including milkweeds, asters, lilies, verbenas, mallows, wild carrots, legumes, clover, and alfalfa (Brower et al. 2006). Eggs are laid on milkweed species and is used as a host plant for caterpillars. Eggs can hatch from between 25 days and 7 weeks (Center for Biological Diversity et al. 2014). The larvae use compounds in the milkweed plant as a defense against predators and other specific functions in their lifecycle (Agrawal et al. 2012). After metamorphosis, breeding adults lay eggs within just a few days, resulting in several generations of breeding butterflies for one summer season. Breeding generations live only two to five weeks, and generally move to the north and east following cooler temperatures and higher quality milkweed. Those that metamorphose in the fall go into reproductive diapause instead of mating, and can live up to nine months (Center for Biological Diversity et al. 2014). They undergo a series of physiological changes in order to survive their migrations, and travel 25 to 30 miles per day (Brower et al. 2006). Individuals that arrive at the roosting sites are thus "great-great-grandchildren" of those that



departed the overwintering site the previous spring, and it is not known how they find the exact roost sites that were used by their ancestors (Center for Biological Diversity et al. 2014). There are several records of overwintering and autumnal sites nearby, including on the western Fiscalini Ranch Preserve in a Monterey Pine Forest (Occurrence No. 113; CDFW 2025a). The Monterey Pine Forest on the study area is potentially suitable for overwintering, but there are no records of overwintering in the immediate area and no congregation of butterflies was observed during winter surveys on the site. No milkweed plants were observed onsite that could be used as a host plant for caterpillars, but adult butterflies are expected to occur periodically while foraging and moving throughout the area.

The **obscure bumble bee** (*Bombus caliginosus*) does not have a specific listing status, but is considered sensitive in the CNDDB and is on CDFW's (2025b) Special Animals list. The host plants for this species occur in coastal scrub, riparian, and grassland habitats. Typical plant species that can be used include ceanothus, coyote brush, manzanita, buckwheat, eucalyptus, rhododendron, thistles, sweet pea, phacelia, collinsia, California poppy, lupines, wild rose, willows, clover and blackberry (Thorp et al. 1983). This species is a social insect with three casts: queens that lay eggs, female workers that collect pollen, and males (Thorp et al. 1983). Queens emerge from hibernation in late-January and initiate a nest that can be underground, on the surface of the ground, in trees or structures, and rodent or bird nests (Thorp et al. 1983). Nests are a wax cup for nectar storage to feed the young and the queen tends the initial brood. In early-March after pupation, they emerge as workers that will forage and build a nest. Eggs for the second brood are laid in the wax cup, and first-generation workers feed the young and tend the nest. Additional broods are produced until the workers outnumber the young, and then eggs are laid that will produce males and new queens, generally in April. After mating, the queens build up fat stores for overwintering. The queens dig small cells in the soil to hibernate and the rest of the colony dies, which is generally in late-October (Thorp et al. 1983). The range of this species is along the Pacific coast from southern British Columbia to southern California, with scattered records from the east side of the Central Valley (Xerces Society for Invertebrate Conservation 2025). Little is known about this species in San Luis Obispo County, and it has been recorded from the vicinity of Cambria in 1973 (Occurrence No. 161; CDFW 2025a). Very few host plants were found onsite, but it is possible for individuals to forage onsite during the spring and summer. The Monterey Pine Forest and Ruderal areas did not support defined small mammal burrows and maintained parts of the site are unsuitable for nesting.

The **California (=Coast Range) newt** (*Taricha torosa*) is a CDFW Species of Special Concern for populations occurring from Monterey County southward. This species is distributed in the Coast Ranges from Mendocino County to San Diego County and in the southwestern Sierra Nevada foothills (CDFW 2025e). They are found in more mountainous areas with oak woodland, chaparral and grassland habitats where there are rocky headwater streams with clear, cold water (Thomson et al. 2016). It is primarily a terrestrial species, migrating to aquatic sites to breed. Populations from the Central Coast through southern California breed in quiet stream pools of permanent streams, and in the northern part of their range they also use ponds and reservoirs (Thomson et al. 2016). Breeding in this region is during March and April, and larvae metamorphose in the summer and fall, but may overwinter (Thomson et al. 2016). Breeding adults and larvae are active both during the day and at night (CDFW 2025e). Individuals can migrate up to 2 miles (3,200 meters) from aquatic breeding sites into upland habitat (Lanoo 2005). Breeding migrations are usually at night and during or following rainstorms (CDFW 2025e). Some individuals return to upland areas after breeding while others may remain in aquatic habitats until the fall or winter (CDFW 2025e). Outside of the breeding period, terrestrial individuals may be found under cover objects such as anthropogenic materials, rocks, logs, or on the surface walking around. They take cover in mammal burrows, rock fissures, and inside the bases of standing trees and remain in subterranean refuges

throughout most of the year (CDFW 2025e). This species is documented from many mid- to upper-reaches of drainages in the southern Santa Lucia Range. They are recorded in the CNDDB from Santa Rosa Creek within 3.7 miles upstream from the study area in 2003 (CDFW 2025a; Occurrence No. 41). They have also been detected in 2005 at "stream mile 11 and 14" (Nelson 2005). There are recent records in iNaturalist from upland areas adjacent near Santa Rosa Creek. An adult was documented in 2023 from 1.7 miles east of the study area and in 2024 1.3 miles northeast of the site (iNaturalist 2025). The reach of Santa Rosa Creek is not expected to have suitable aquatic conditions for this species because rocky conditions with boulders are not present and it does not have perennial water. They generally are not found in lower reaches of coastal streams in this area. Rathbun et al. (1991) did not record this species as occurring during focused surveys conducted during 1991 from the lagoon to the Highway 1 bridge. However, since they are known from upstream areas, there is a slight possibility that they could be washed downstream during flooding. The Monterey Pine Forest along the lower slope had downed logs for cover, and could be suitable for upland habitat given the proximity to Santa Rosa Creek.

The **California red-legged frog** (*Rana draytonii*) is a federally Threatened species and a CDFW Species of Special Concern. This species requires aquatic habitats for reproduction and inhabits these sites most of the year. The types of aquatic habitats they use include seasonal and permanent ponds, intermittent and perennial streams, springs, artificial impoundments (i.e., stock ponds, reservoirs), marshes, dune ponds and lagoons. This species uses the mouths of streams subject to periodic tidal inundation. They slough and lagoon habitats when freshwater conditions are present, such as during winter when sandbars have washed out and there are substantial flows from precipitation, but move farther upstream when saline conditions occur (Rathbun et al. 1993). Preferred aquatic habitat is characterized by dense shoreline or emergent vegetation, such as willows, cattails, and bulrushes, with still or slow-moving water at least 2.3 feet deep (Hayes and Jennings 1989). However, they also occupy ponds or pools with little or no emergent vegetation. Other features in stream habitats that appear to be important for refuge are undercut banks and willow rootballs (USFWS 2005). Breeding habitat is typically the interface of open water with vegetative cover such as cattails or overhanging willows in shallow water less than 1 meter from the shore (USFWS 2022). Ephemeral sites must retain water at least into July/August in order for the tadpoles to reach metamorphosis. In rare instances, California red-legged frog tadpoles have been found to overwinter and transform the following year (Fellers et al. 2001), but they generally metamorphose between July and September (Jennings and Hayes 1994).

California red-legged frogs also use a variety of upland habitats. Adults can be far from water during the winter when undergoing migrations between aquatic sites or for aestivation; they move away from aquatic sites when they dry down in the late summer or fall; and, post-metamorphic juveniles disperse away from aquatic sites where they remain in uplands for an unknown number of years. The adult migratory period is late-October through mid-May, and they are nocturnal and undergo movements at night (Bulger et al. 2003). Adults move away from water in response to rain events and may remain on land between early-December to late-March (Christopher 2000, 2004b; Bulger et al. 2003). In mesic habitats along the coast, adults have been found to move through upland habitats up to a total distance of 2 miles (3.2 kilometers) in one season, with the greatest segment without encountering a water source being 0.74 miles (1.2 kilometers) (Bulger et al. 2003). Individuals migrating between aquatic sites used for summer residence and other aquatic sites used for breeding have been found to move overland distances of at least 1.7 miles (2.8 kilometers) (Bulger et al. 2003). In xeric to moderately mesic local climates where populations did not undergo breeding migrations, they also used upland habitats in winter, but remained within 200 feet (60 meters) of water (Rathbun et al. 1993, Christopher 2004b, Tatarian 2008). The USFWS uses a 1.0-mile (1.6-kilometer) radius from known localities when evaluating project sites (USFWS 2005) and for determining the extent of critical habitat within upland areas (USFWS 2010). While

undergoing terrestrial movements, they move through grassland, agricultural fields, forest, scrub, and grazed pastures (Bulger et al. 2003). They have been documented to move overland across slopes exceeding 50%, crossing multiple drainage divides with a minimum elevation change of 2001 feet (610 meters) (Bulger et al. 2003). While occupying upland habitats, the frogs take cover in leaf litter, thatched grasses and thick herbs, and shrubby vegetation such as willows, blackberry thickets, German ivy, and nettles, as well as downed trees and are not found out in the open during the daytime (Rathbun et al. 1993; Christopher 2000, 2004b). During the summer months (June to September) the frogs stay in close proximity to water. They may make short movements into adjacent riparian habitat or dense emergent vegetation on the shore, but remain within 16 to 26 feet (5 to 8 meters) of water (Christopher 2000, Scott and Rathbun 2001, Bulger et al. 2003). They also move up and down stream channels (Tartarian 2008). Recently metamorphosed individuals tend to have mass dispersal away from their natal ponds. In Monterey County where overwintering tadpoles were observed, most (95%) dispersal was during the first significant rain event following metamorphosis in November and December (Allaback et al. 2010). In Santa Barbara County, metamorphs began emigrating from ponds shortly after metamorphosis (August) even when environmental conditions were dry, and peaked during the first rainfall (early November) (Christopher 2004b).

California red-legged frogs have been documented from lower Santa Rosa Creek as well as many other locations in the vicinity (CDFW 2025a). Rathbun et al. (1991) conducted a series of focused surveys in summer 1991 between the lagoon and Highway 1, and found one living and one dead adult California red-legged frogs, and one American bullfrog that was collected. This area is represented by Occurrence No. 383, in which an adult frog was found in 1999 and a tadpole in 2005 (CDFW 2025a). An adult frog was found in Santa Rosa Creek within 0.3-mile of the study area in 2005 (Nelson 2005). Another adult frog was found 0.4-mile northeast of the study area in 1999 along the streambank (Occurrence No. 497; CDFW 2025a). They have also been documented in upper reaches, including "stream mile 8.8" (Nelson 2005), at the confluence with Curti Creek (Occurrence No. 802), and several individuals were found approximately 9 miles east of the Pacific Ocean (Occurrence No. 315; CDFW 2025a). The reach of Santa Rosa Creek near the study area appears to have potentially suitable habitat for this species. Time-series aerial photography shows water persisting until at least June and September except in drought years, which is long enough for tadpoles to reach metamorphosis. Adults and juveniles present in Santa Rosa Creek could use the densely wooded toe of slope in the northern part of the study area for aestivation during winter and in fall after water levels decline. There is very low probability that they would move up into the higher upland areas of the site where the majority of work is proposed.

The **southwestern pond turtle** (*Actinemys pallida*) is proposed for listing as a Threatened species under the FESA and is a CDFW Species of Special Concern. They are semi-aquatic, having both terrestrial and aquatic life history phases. Their aquatic habitats include streams with pools, rivers, brackish lagoons, ponds, irrigation reservoirs, irrigation ditches, especially those with areas of open water and some perimeter vegetation such as bulrushes, cattails and willows (Bury et al. 2012, California Herps 2025). Logs, rocks, cattail mats, and exposed banks are used for basking. They feed on aquatic plants, invertebrates, worms, amphibian eggs and larvae, crayfish, and carrion (California Herps 2025). Terrestrial habitats are required for nesting, overwintering, aestivation (warm season dormancy), and movement/dispersal (USFWS 2023). Mating takes place under water from May through September (USFWS 2023). Females leave the water to excavate a nest chamber for oviposition between late-April and August. Nesting is usually in grassland habitat with sparse vegetation and sunny open areas with well compacted soils, 98 to 558 feet (30 to 170 meters; average 50 meters) from aquatic habitats (Rathbun et al. 1992, 1993, 2002; Scott et al. 2008, Davidson and Alvarez 2020, California Herps 2025). In a recent review, the maximum distance reported was 1,500 feet (457 meters) and the average maximum distance was 510 feet

(155.5 meters) (Alvarez and Del Vecchio 2024). Soils typically have a high clay or silt component (USFWS 2023). In central and southern California, hatchlings leave the nest in the late-summer or early-fall, whereas in northern areas they may overwinter in the nest chamber and move to water the following spring (USFWS 2023). During migration from nest sites to aquatic habitats hatchlings may make numerous pauses in which they embed themselves in soil, entering water an average of 49 days after emergence from the nest (USFWS 2023).

Southwestern pond turtles undergo a period of dormancy in the winter. At sites with permanent water, they remain buried in the substrate during the winter (Bury et al. 2012) and may cluster in the shallow end of the pond (California Herps 2025). At ephemeral aquatic sites, they move into upland areas in late-summer or fall when water levels decline (Rathbun et al. 1993). This species is primarily diurnal, and they make overland movements during the day. They have been found to undergo movements of up to 3,596 feet (1,096 meters) within upland habitats in one season, and they occupy woodland, scrub and chaparral vegetation within 1,640 feet (500 meters) from their aquatic sites for up to 30 weeks (Reese and Welsh 1997, Rathbun et al. 2002, Pilliod et al. 2013). During winter in upland habitats, turtles remain buried under dense cover such as willow/blackberry thickets, patches of coyote brush, or Monterey pine stands (Rathbun et al. 1993). They may also use California ground squirrel burrows during dormancy (California Herps 2025). They remain underground until temperatures warm in the spring and they return to aquatic sites. They can live up to at least 55 years old (USFWS 2023).

This species is relatively common in coastal streams and ponds in the vicinity (CDFW 2025a). It has been documented from lower Santa Rosa Creek and nearby wastewater percolation ponds, which includes the reach within 0.6-mile of the study area (Occurrence No. 4; CDFW 2025a). They have also been documented in upstream reaches, with the most recent observation in 2003 (Occurrence Nos. 136 & 142; CDFW 2025a). Historical records from annual surveys of the lagoon revealed a sharp decline between 1986 and 1990 (Rathbun et al. 1991). Nelson (2005) notes detecting this species during steelhead surveys, but does not provide numbers or locations along the drainage. There are records of several pond turtles observed upstream sections of Santa Rosa Creek in 2018 and 2021 reported in iNaturalist (2025). The reach of Santa Rosa Creek near the study area may be suitable, particularly considering that perennial water persists in the lagoon and wastewater treatment ponds. There is a low chance that turtles could occupy the lower slope of the study area during winter estivation. They are unlikely to use the majority of the site for upland dispersal due to high slope and absence of other aquatic sites nearby. No suitable nesting habitat is onsite.

Allen's hummingbird (*Selasphorus sasin*) a federal Bird of Conservation Concern. It is found in coastal scrub, valley foothill hardwood, riparian, pine-cypress, redwood and urban habitats (CDFW 2025e). They breed in sparse to open woodlands, and nests are attached to lateral supports on eucalyptus, juniper, willow, other trees, vines, shrubs and ferns (CDFW 2025e). Individuals feed on nectar, insects and spiders (CDFW 2025e). Individuals winter in Mexico and migrate to the California coast to breed. They can be found along the coast from January to July (CDFW 2025e). They can also be found in the southern California mountains during migration. There are numerous records of this species in the surrounding area (The Cornell Lab of Ornithology 2025a). They could feed and nest onsite in the Monterey Pine Forest habitat.

The **American peregrine falcon** (*Falco peregrinus anatum*) is a CDFW Sensitive species for nesting. They forage in open habitats, and they prey largely on birds from the marine and terrestrial environments. They will also prey on bats, small mammals and invertebrates (CDFW 2025e, The Cornell Lab of Ornithology 2025b). Their breeding habitat is high cliffs, dunes or mounds, but they also use buildings in urban areas and cavities in trees or snags (CDFW 2025e, The Cornell Lab of Ornithology 2025b). Although they have declined substantially, they still breed along the coast

from Santa Barbara northward (CDFW 2025e). They also occur in the Central Valley in winter, and migrating individuals from other areas occur along the coast (CDFW 2025e). This species has been observed at many locations surrounding the study area (The Cornell Lab of Ornithology 2025a), including Fiscalini Ranch Preserve (Morro Group SWCA Environmental Consultants 2009). They could perch on the Monterey pine trees while foraging in the adjacent floodplain, or occur as a transient while moving through the area. There is no suitable habitat for nesting on or near the site.

The **bald eagle** (*Haliaeetus leucocephalus*) is a state Endangered species and a CDFW Fully Protected species for nesting and wintering habitats. Their primary prey is fish, but they also feed on small mammals, amphibians, reptiles and carrion (The Cornell Lab of Ornithology 2025b). They usually consume fish larger than 7.5 inches (200 millimeters) total length, and may consume dead fish from spawning or angling stress, as well as waterfowl during the winter and early spring (cited in Jackman and Jenkins 2004). They are usually in close proximity to (within 1 mile of) large bodies of water, rivers, estuaries or flooded fields with large trees or other perches nearby (CDFW 2025c). Nests are on ledges on cliffs, trees on cliffs, deciduous trees along rivers, and live conifer trees greater than 100 feet (30 meters) tall (Jackman and Jenkins 2004). In central California, they also use foothill pine (*Pinus sabiniana*), cottonwood (*Populus* sp.), oaks (*Quercus* sp.) and eucalyptus (*Eucalyptus* sp.) (Jackman and Jenkins 2004). Optimal nesting habitat is characterized by 1) a large foraging area with high fish production; 2) mature trees for nest sites; and 3) minimal human disturbance (Peterson 1986). They roost communally in winter in dense conifer stands away from human disturbance (CDFW 2025c). Courtship activity, which may begin as early as January, includes nesting building, nest maintenance, vocalizing, copulation, and territory defense (Jackman and Jenkins 2004). Egg laying is generally mid-February to the end of March. Eggs require a minimum of 35 days to hatch and fledging is after 12 weeks (Jackman and Jenkins 2004). There are numerous observations of this species from the surrounding area (The Cornell Lab of Ornithology 2025a). The tall Monterey pine trees onsite are suitable for perching and roosting, and they could use the site for wintering. The proximity of the Pacific Ocean and large coastal wetlands nearby increases the chance that they could occur, but given the urban setting of the neighborhood and high level of human presence, nesting is unlikely.

The **California gull** (*Larus californicus*) is a federal Bird of Conservation Concern and is on the CDFW Watch List for nesting colonies. It occurs in a wide variety of habitats including sandy beaches, mudflats, rocky intertidal, pelagic areas of marine and estuarine habitats, fresh and saline emergent wetlands, alkali and freshwater lakes, rivers, agricultural areas, pastures, landfills, and open lawns in urban areas (CDFW 2025e). They are omnivores feeding on living organisms, and also consume garbage and carrion. Nesting is in colonies on islands in alkali or freshwater lakes, and salt ponds in undisturbed areas. Within San Luis Obispo County, this species occurs along the coast year-round (CDFW 2025e), but they do not breed in this area. This species has been documented throughout the surrounding area (The Cornell Lab of Ornithology 2025a). Individuals could forage onsite or perch on the trees, but they do not nest in this area and no nesting habitat is present.

Cooper's hawk (*Accipiter cooperii*) is on the CDFW Watch List for nesting. This is a woodland species that prefers dense stands of coast live oak, riparian forest, and mixed coniferous forests near a source of water, but also can occur in suburban habitats with tall trees. They prey on birds, small mammals, reptiles and amphibians. There are numerous observations from the surrounding area (The Cornell Lab of Ornithology 2025a). They could forage and nest onsite in the Monterey Pine Forest habitat.

The **ferruginous hawk** (*Buteo regalis*) is a federal Bird of Conservation Concern and is on the

CDFW Watch List for wintering sites. They use lower elevation open grassland habitats, and also occur in sagebrush, desert scrub, and edges of pinyon-juniper (CDFW 2025c). Roosting is in open areas on a lone tree or utility pole but they do not nest in this area. They prey on rabbits, ground squirrels, mice, amphibians and reptiles (CDFW 2025c). There are observations of this species from numerous locations surrounding the site (The Cornell Lab of Ornithology 2025a), and the CNDDDB reports wintering from the vicinity. Individuals could perch on the Monterey pine trees while foraging in the adjacent floodplain, and may use the site for wintering. However, they do not nest in this area.

The **golden eagle** (*Aquila chrysaetos*) is considered a Fully Protected species by the CDFW and is on the Watch List for nesting and wintering. They are also a federal Bird of Conservation Concern. Golden eagles are long-lived, slowly reproducing species that require high adult survival for population stability (Driscoll 2010). They mature into adults during their fifth summer and can live 20 to 40 years (cited in Driscoll 2010). They prey on small to medium-sized small mammals such as hares, rabbits, ground squirrels, birds, badgers, fish and carrion (The Cornell Lab of Ornithology 2025b). Black-tailed jackrabbits are the primary prey in many areas of the western United States and ground squirrels are the main part of their diet in central California (cited in Driscoll 2010). Nesting is in open to semi-open habitats, usually on cliffs, but large trees or structures such as electrical towers may also be used (The Cornell Lab of Ornithology 2025b). High quality breeding habitat contains: 1) nesting substrate that offers protection from weather and predators; 2) sufficient prey populations to sustain the pair throughout the year; 3) updrafts and thermals for soaring and hunting; and 4) isolation from human disturbance and development (Driscoll 2010). Once a pair has established a breeding territory, they typically use that area each year. They build several alternate nests within their territory that they move between in different years (Driscoll 2010). The nests are flat or bowl-shaped platforms made of sticks that are lined with soft material (cited in Pagel et al. 2010). Eagles will abandon nests due to increased human activity and development or from events that affect prey populations (cited in Driscoll 2010). For a month or two before eggs are laid, eagle pairs are conspicuous when they perform courtship flights, undulating flights, vocalizations, and carry sticks to construct new nests or repair existing nests (Driscoll 2010). They may begin laying eggs in January but most begin in mid-February and ends by August 31 (Pagel et al. 2010). The incubation period is 45 days and fledging is between 8 and 10 weeks (Driscoll 2010). There are several records from areas surrounding the property (The Cornell Lab of Ornithology 2025a), including the Fiscalini Ranch Preserve (Morro Group SWCA Environmental Consultants 2009). They could perch in the Monterey pine trees and could use the site for wintering, but would not be expected to nest onsite due to the proximity to human activities.

The **loggerhead shrike** (*Lanius ludovicianus*) is a CDFW Species of Special Concern for nesting. This species occurs in variety of relatively open habitats with low vegetation and well-spaced shrubs or trees, such as coastal scrub, grasslands, agricultural fields, pastures, riparian areas, desert scrub, savannas, prairies, golf courses, and along roadsides. They prefer areas where there are objects to perch on such as fences, trees or shrubs (Audubon 2025). Nests are placed in dense and sometimes thorny trees or shrubs and brush piles (Audubon 2025). They prey on insects, amphibians, reptiles and small mammals, and may impale their prey on sharp objects. There are several observations of this species from along Santa Rosa Creek and the western Fiscalini Ranch Preserve (The Cornell Lab of Ornithology 2025a). The habitat onsite is suitable for foraging and nesting, and they could perch on the shrubs while foraging in the adjacent floodplain.

The **merlin** (*Falco columbarius*) is on the CDFW Watch List for wintering. They occupy coastal areas, grasslands, savannas, woodlands, lakes, wetlands, and edges of coniferous forest (CDFW 2025e). They are a small falcon that preys on songbirds and shorebirds (The Cornell Lab of

Ornithology 2025b), and also small mammals and insects (CDFW 2025e). They occur in this area in the fall and winter (CDFW 2025e). There are records from Cambria and the western Fiscalini Ranch Preserve (Morro Group SWCA Environmental Consultants 2009, The Cornell Lab of Ornithology 2025a). Suitable foraging habitat is present throughout the study area, but they do not nest in this region. This species could use the study area for wintering.

The **northern harrier** (*Circus cyaneus*) is a CDFW Species of Special Concern for nesting. This species prefers wide open country with wetlands but they also occur in rolling grasslands or desert shrubland. Nests are placed on the ground in dense clumps of vegetation usually in emergent marshes or willows along rivers or lakes, but occasionally they nest in dry open fields, grassland or sagebrush flats (Audubon 2025, CDFW 2025e). In San Luis Obispo County, they occur year-round along the coast and eastern parts and use central areas during the summer (CDFW 2025e). Breeding is in the Central Valley, Sierra Nevada and northeastern California (CDFW 2025e). There are numerous observations surrounding the site (The Cornell Lab of Ornithology 2025a). Individuals could perch on the Monterey pine trees while foraging in the adjacent floodplain, but there is no nesting habitat onsite. Harriers have been recorded in the CNDDDB nesting in the vicinity (CDFW 2025a), and could potentially occur as a transient while moving around the area.

Nuttall's woodpecker (*Dryobates nuttallii*) is a federal Bird of Conservation Concern at the regional scale. They occupy riparian and oak woodland habitats, where they forage by drilling for sap or gleaning from trunks or branches. They feed primarily on adult and larval insects, and also consume berries, nuts and fruits (CDFW 2025e). Nesting is in cavities that they excavate in riparian trees. They occur in this area year-round (CDFW 2025e). There are numerous observations of this species from areas surrounding the site, including the Pacific Pines residential area, Cambria and the Fiscalini Ranch adjacent to the site (The Cornell Lab of Ornithology 2025a). The riparian habitat along Santa Rosa Creek offsite is suitable for Nuttall's woodpecker, and individuals could potentially occur in the Monterey Pine Forest onsite where they could forage and nest.

The **oak titmouse** (*Baeolophus inornatus*) is a federal Bird of Conservation Concern and is considered Sensitive by CDFW for nesting. They are year-long residents of montane hardwood-conifer, montane hardwood, oak woodland (blue, valley and coast live), and montane and valley foothill riparian forests along most of the coast of California, foothills of the Sierra Nevada and the northeastern corner of the state (CDFW 2025e). They can be found periodically in residential areas. Nests are in cavities of trees and are often near water. They eat insects, spiders, berries, acorns and seeds (CDFW 2025e). There are numerous observations of this species from areas surrounding the site, including the Pacific Pines residential area, Cambria and the Fiscalini Ranch adjacent to the site (The Cornell Lab of Ornithology 2025a). Suitable habitat for foraging and nesting is present in the study area.

The **osprey** (*Pandion haliaetus*) is on the CDFW Watch List for nesting. It is a falcon that specializes on feeding on fish, but also preys on birds, snakes, voles, squirrels, and salamanders. They occur in rivers, lakes, reservoirs, intertidal areas, lagoons, bays, estuaries and marshes with fish (CDFW 2025e). Nests are in trees, snags, cliffs, or artificial platforms but they not breed in this area. In California, they breed in the Cascade Ranges north of Lake Tahoe and along the coast north of Marin County (CDFW 2025e). The Central Coast is within its year-round range as they migrate along the coast. Wintering is in Central and South America (CDFW 2025e). There are numerous observations from surrounding the site including the Pacific Pines residential area (The Cornell Lab of Ornithology 2025a). This species could fly through the site and perch on the trees, or occur as a transient during migration, but no suitable foraging or nesting habitat is present.

The **rufous hummingbird** (*Selasphorus rufus*) is a federal Bird of Conservation Concern and is

considered sensitive for nesting by CDFW. This species occurs in riparian areas, open woodlands, scrub, chaparral, mountain meadows, gardens and orchards (CDFW 2025e). They breed in coniferous forests north of California from Oregon through Alaska and east to Montana (The Cornell Lab of Ornithology 2025b). They feed on the nectar of flowering plants, insects, spiders and tree sap (CDFW 2025e). Individuals have been recorded in the surrounding area (The Cornell Lab of Ornithology 2025a). They could forage periodically onsite during migration, but do not nest in this area.

The **sharp-shinned hawk** (*Accipiter striatus*) is on the CDFW Watch List for nesting. This species generally occurs in semi-open woodlands, margins of open areas, coniferous forests, mixed woodlands and riparian habitats, and dense forest is required for nesting. They prey on birds, and may occur in residential areas preying on birds at bird feeders. During migration, it uses coastlines, lake shores and mountain ridges (Audubon 2025). It does not breed in San Luis Obispo County, and they are an uncommon transient and winter visitor. They have been recorded at various locations surrounding the site (The Cornell Lab of Ornithology 2025a). Individuals could forage onsite and may perch or roost in the pine trees, but they do not nest in this area.

The **white-tailed kite** (*Elanus leucurus*) is a CDFW Fully Protected species for nesting sites. This species prefers open areas for foraging, including grasslands, river valleys, oak savanna, agricultural areas, deserts, and marshes (Audubon 2025). They nest in large isolated trees, and occasionally in riparian habitats (CDFW 2025e). During the non-breeding season, they roost communally in trees or tall shrubs at the edges of grasslands (The Cornell Lab of Ornithology 2025b). There are numerous records in eBird in the surrounding area, including the Fiscalini Ranch Preserve adjacent to the site (Morro Group SWCA Environmental Consultants 2009, The Cornell Lab of Ornithology 2025a). They could roost or nest in the Monterey Pine Forest and may perch on the trees while foraging in the adjacent floodplain.

The **wrentit** (*Chamaea fasciata*) is a federal Bird of Conservation Concern. It occurs in chaparral, coastal scrub, and shrub understory of coniferous forests (CDFW 2025e). It gleans insects and spiders from foliage and also eats berries and small fruits (CDFW 2025e). Nesting is in dense shrubs, and they nest in this region. There are numerous records of this in areas adjacent to the site, including the Fiscalini Ranch Preserve floodplain and Pacific Pines residential areas (The Cornell Lab of Ornithology 2025a). They could forage and nest in the Monterey Pine Forest habitat.

The **yellow-billed magpie** (*Pica nutalli*) does not have a specific listing status but is a federal Bird of Conservation Concern and is considered sensitive by CDFW for nesting and communal roosts on the Special Animals List (CDFW 2023a). It is endemic to California, and it is a non-migratory, permanent resident. It inhabits open oak woodland and savannah, riparian, and valley hardwood-conifer habitats. It also occurs in residential and agricultural areas, pastures and orchards. They feed on the ground on insects, invertebrates, trash, carrion, acorns, fruit, grain, nestlings, eggs, earthworms, ticks and live rodents (CDFW 2025e). They nest in small colonies, building stick nests at the tops of trees (Audubon 2025). Shortly before sunset, magpies aggregate and move to a communal roost site in which they spend the night. There are numerous records from along the Santa Rosa Creek corridor and a few from nearby residential areas (The Cornell Lab of Ornithology 2025a). It is possible that they could occur in the Monterey Pine Forest while foraging or moving around the area, but the habitat is marginally suitable and no nests were observed indicating magpie use of the site.

The **yellow warbler** (*Setophaga petechia*) is a CDFW Species of Special Concern for nesting. In California, this species breeds along coastal areas from Del Norte County south to Ventura County, where it prefers medium-density riparian woodlands (CDFW 2025c). This is a migratory species

that occurs in this area only during the breeding season (The Cornell Lab of Ornithology 2025b). They are closely tied to riparian habitat for foraging and nesting, but they also use residential areas and orchards. There are numerous records of this species from the Santa Rosa Creek lagoon and several from residential areas in the vicinity (The Cornell Lab of Ornithology 2025a). They could forage onsite periodically and occur as a transient while moving around the area. The shrubby area on the slope is marginally suitable for nesting, but is more likely to use riparian habitats in the area.

The **fringed myotis** (*Myotis thysanodes*) does not have a specific status but is considered to be a sensitive species (CDFW 2025b). It occurs in a wide variety of forested habitats including coniferous forest, oak woodland, mixed deciduous forest and pinyon-juniper woodland as well as desert scrub. Foraging is in relatively open habitats with shrubs or low trees, and near water sources. They roost in caves, mines, buildings, and in tree cavities, using different roosts during the day and night (CDFW 2025e). They are sensitive to disturbance at roost sites. This species has been recorded at Hearst Castle (Occurrence No. 45) and San Simeon Beach (Occurrence No. 46; CDFW 2025a), and all of San Luis Obispo County is considered to be within this species' year-round range (CDFW 2025e). The Monterey Pine Forest is potentially suitable for foraging and they could roost in cavities of large trees if present.

The **hoary bat** (*Lasiurus cinereus*) does not have a specific status but is recorded in the CNDDDB and is on CDFW's (2025b) list of *Special Animals*, and therefore is considered sensitive. This species occurs in open habitats or habitat mosaics along woodland edges. They prey on moths and other flying insects (CDFW 2025e). Roost sites are in dense foliage of large trees, and maternity roosts are woodlands/forests with medium to large trees. They winter along the coast and in southern California, and breed inland and in northern parts of the state. During migration, males are found in foothills, deserts and mountains, and females in lowlands and coastal valleys (CDFW 2025e). There were no records in the CNDDDB from the vicinity but the site is within the species' yearlong range (CDFW 2025e). They could forage and roost in the Monterey Pine Forest habitat.

The **long-legged myotis** (*Myotis volans*) does not have a specific status but is recorded in the CNDDDB and is on CDFW's (2025b) list of *Special Animals*, and therefore is considered sensitive. This species is most common in forest habitats above 4000 feet in elevation, but it also occurs to sea level and uses chaparral, coastal scrub, Great Basin shrub, and open woodland habitats (CDFW 2025e). Day and maternity roosts are under tree bark and hollows in snags, and night roosts are in rock crevices, buildings, mines, and caves. It occurs year-round in San Luis Obispo County, and has been recorded at Hearst Castle (Occurrence No. 22; CDFW 2025a). The Monterey Pine Forest onsite is suitable for foraging and roosting, including maternity roosts.

The **Monterey dusky-footed woodrat** (*Neotoma macrotis luciana* [= *Neotoma fuscipes luciana*]) is a CDFW Species of Special Concern. It is found in oak and riparian woodland, dense chaparral and mixed coniferous forests with dense understory. Coast live oaks and shrubs are important habitat components for this species (Tietje 1995). They construct large, multi-chambered stick houses known as middens for protection and food storage. The middens are made from sticks, leaves, herbaceous vegetation, and various items that they collect from the immediate area, and are at the base of trees, shrubs and hills or in the branches of trees. Woodrats are nocturnal, semi-arboreal and active year-round. They are herbivorous and eat leaves, flowers and acorns. They live in groups but are also considered to be solitary animals (Kelly 1990). This subspecies occurs along the Coast Ranges from Monterey Bay to Los Osos and east to Camp Roberts (Matocq 2002a). The San Miguel woodrat (*Neotoma fuscipes bullator*) occurs in the Salinas Valley and contacts the Monterey dusky-footed woodrat on Camp Roberts (Matocq 2002b, Koenig 2015). The big-eared woodrat (*Neotoma macrotis macrotis* [= *Neotoma fuscipes macrotis*]) occurs along the coast of southern California, ranging from Los Osos to Baja California (Matocq 2002a). The San Diego desert

woodrat (*Neotoma lepida intermedia*) occurs from Los Osos to San Diego County and east to the city of San Luis Obispo. Woodrats are usually detected by the presence of their conspicuous middens; therefore, the location of the study area within the known range of the subspecies is used for determining species identification. Otherwise, molecular studies are required. There were no records in the CNDDDB query of this species, but Morro Group SWCA Environmental Consultants (2009) cites a report that this subspecies occurs on the Fiscalini Ranch Preserve. The portion of the Monterey Pine Forest habitat on the steep slope with brushy understory and coast live oak trees has potentially suitable habitat for this subspecies, but no stick nests were observed during surveys.

The **pallid bat** (*Antrozous pallidus*) is a CDFW Species of Special Concern. This species forages in a variety of dry, open habitats such as grassland, deserts, woodland, shrubland and coniferous forest. Maternity and winter roosting sites are cavities or caves in rock features, large trees or buildings, and these structures must substantially moderate temperature. Day roosts are in caves, crevasses, mines and occasionally hollow trees or buildings. Night roosts are in more open areas such as porches or agricultural buildings. They forage on beetles, moths, spiders, scorpions and Jerusalem crickets (CDFW 2025e). This species has been recorded from near San Simeon (Occurrence Nos. 289 & 324; CDFW 2025a). They could forage over the site and roost in cavities in the pine trees.

Townsend's big-eared bat (*Corynorhinus townsendii*) is a CDFW Species of Special Concern. This species occurs in a variety of habitats, but they prefer mesic areas (CDFW 2025c). They prefer foraging along the edges of riparian vegetation and they drink water from ponds. They roost in caves, mines, abandoned buildings and under bridges (Gruver and Keinath 2006) and are extremely sensitive to disturbance at roost sites (CDFW 2025c). This species is considered to be widespread throughout California except for high elevations in the Sierra Nevada, and they occur in this area throughout the year (CDFW 2025e). A maternity colony and individuals have been recorded in the vicinity of San Simeon (Occurrence Nos. 185 & 343; CDFW 2025a). They could forage particularly along the edge of the pine forest, but there is no roosting habitat.

The **western red bat** (*Lasiurus frantzii* [= *blossevillei*]) is CDFW Species of Special Concern. They forage over grasslands, shrublands, woodlands, oak savannah, forests, and agricultural areas (CDFW 2025e). They roost primarily in trees, and occasionally in shrubs. Both night and maternity roost sites are usually near streams, agricultural fields, or urban areas. This species migrates between summer and winter ranges. They winter in the Central Coast, where they hibernate, but they could also occur in this area during the summer (CDFW 2025e). This species' year-round range includes all of San Luis Obispo County (CDFW 2025e) although there were no records in the CNDDDB query. Suitable foraging habitat is present and they could roost (including maternity roosts) in the Monterey Pine Forest.

The **western small-footed myotis** (*Myotis ciliolabrum*) does not have a specific listing status but is considered sensitive by the CDFW (2025b). This species is associated with arid woodlands, open forests and brushy uplands near water (CDFW 2025e). It occurs from sea level to 2700 meters in elevation. Individuals feed on small flying insects. The night roost in buildings, caves, mines, crevices, and under bridges and bark. Maternity roosts are in buildings, caves and mines (CDFW 2025e). Their range is coastal areas in the state from Contra Costa County to the Mexican border, foothills of the Sierra Nevada and Cascades, and eastern areas from Mono County to San Bernardino County. They occur year-round in San Luis Obispo County (CDFW 2025e); however, there were no records in the CNDDDB query. Suitable open woodland and water sources are present, and the site is within the year-round range of the species. They could night roost in trees but no structures for maternity roosts are present.

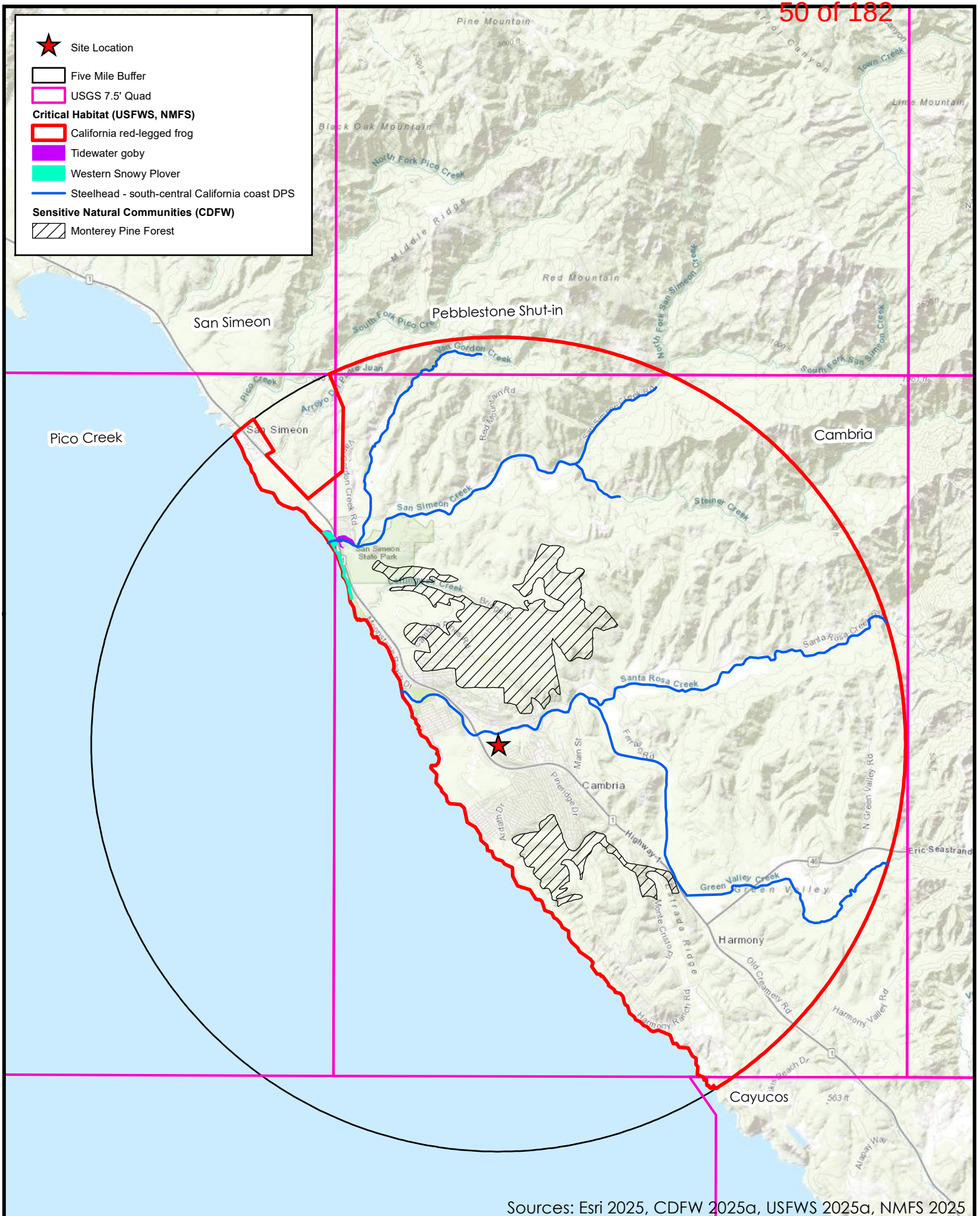
The **Yuma myotis** (*Myotis yumanensis*) does not have a specific listing status but is considered sensitive by the CDFW (2025a). This species forages in open forests and woodlands, usually over water sources such as ponds and streams (CDFW 2025e). They prey on flying insects as well as ants. They roost in buildings, mines, caves, crevices and under bridges (CDFW 2025e). Night roosts are in more open areas such as under tree bark or in tree cavities. This species is considered to be common and widespread throughout all but the deserts of California, and they are known to occur year-round in the county (CDFW 2025e). This species has been recorded at San Simeon Creek (Occurrence No. 40; CDFW 2025a). They could forage or night roost in the Monterey Pine Forest onsite, and possibly could roost in bridges nearby.

3.5.3 Designated Critical Habitat

The study area occurs within California red-legged frog critical habitat Unit SLO-2 Piedras Blancas to Cayucos Creek, which covers all of Cambria and surrounding areas (Figure 7). This unit provides all of the features essential for the conservation of the species, including: 1) permanent and ephemeral aquatic breeding habitat; 2) non-breeding aquatic and riparian habitat; 3) upland habitat; and 4) dispersal habitat (USFWS 2010). This area is also important because it provides connectivity between the Santa Lucia Range and the inner Coast Range (USFWS 2010). "Aquatic breeding habitat" provides space, food, and cover necessary to sustain all aquatic life stages of the species. Breeding habitats must be able to hold water for a minimum of 20 weeks in all but the driest of years (USFWS 2010). Santa Rosa Creek offsite would be considered aquatic breeding habitat. "Non-breeding aquatic and riparian habitat" describes shallow freshwater features such as intermittent streams, seeps, springs, small ponds that dry up in less than 20 weeks, and vegetation along the banks or floodplain. Non-breeding habitat aquatic and riparian is present in and along reaches of Santa Rosa Creek that are intermittent. "Upland habitat" provides corridors between and disturbance buffers from aquatic breeding and non-breeding habitat, and includes grassland, woodland, forest, or shrubby areas that provide shelter, foraging opportunities and predator avoidance. Also included are structures that provide shade and moisture, such as boulders, rocks, downed trees, logs, small mammal burrows, or anthropogenic materials including watering troughs, spring boxes, drains and stacks of debris (USFWS 2010).

The Monterey Pine Forest habitat onsite, particularly the slope where there is shrubby understory and abundant logs for cover, could be suitable upland habitat. "Dispersal habitat" provides connectivity between breeding and upland habitat that does not contain barriers which prevent frogs from dispersing. It is essential for maintaining gene flow through the movement of juveniles and adults between populations, colonization of new habitats and recolonization after local extirpations. It includes uplands, riparian, agricultural fields, orchards, vineyards and pastures (USFWS 2010). Examples of dispersal barriers are heavily traveled roads without bridges or culverts, moderate- to high-density urban development, and large lakes and reservoirs (USFWS 2010). The USFWS considers a distance of 1.0 mile (1.6 kilometer) from occupied aquatic habitats for determining upland and dispersal critical habitat for the frog in most cases, depending on the surrounding landscape and any dispersal barriers (USFWS 2010). The lower slope onsite would be potential dispersal habitat. Therefore, a portion of the study area contains two (upland, dispersal) of the four elements essential for critical habitat.

Critical habitat for the south-central California coast steelhead (*Oncorhynchus mykiss irideus* population 9) occurs in Perry and Santa Rosa creeks, which are outside of the study area (Figure 7). This area is within the Estero Bay Hydrologic Unit, Santa Rosa Hydrologic Sub-area 331014 (NMFS 2005).



Sources: Esri 2025, CDFW 2025a, USFWS 2025a, NMFS 2025

3.5.4 Migratory Birds and Raptors

Special-status and common bird species protected under the MBTA and raptors protected under California Fish and Game Code or the Bald and Golden Eagle Protection Act could occur onsite during movement periods. Several of the species identified above could roost and potentially nest in the Monterey Pine Forest.

3.5.5 Sensitive Natural Communities

The Monterey Pine Forest onsite has a State Rarity Rank of S1.1 and meets the threshold for a sensitive natural community under CEQA. The Bishop Pine - Monterey Pine Forest and Woodland alliance (87.240.00) is a sensitive alliance rated as S3 (CDFW 2025d). It is also considered to be a protected resource by the County of San Luis Obispo as described in Sections 4.1.1. and 4.1.5. The CNDDB has mapped intact native stands of Monterey Pine Forest as a sensitive natural community (Figure 7), but the study area does not fall within one of these areas perhaps because it is fragmented by development.

The Non-native Grassland community/Wild Oats and Annual Brome Grasslands (42.027.00) semi-natural alliance is not considered sensitive (CDFW 2025d). The Ruderal habitat is an anthropogenic land use and is not a native plant community, and therefore would not be classified as a sensitive natural community.

4.0 IMPACTS AND RECOMMENDED MITIGATION

The following impact analysis and recommended mitigation measures are based on the disturbance area shown in site plan prepared by Civil Design Studio, which is included as Appendix A. The types of project effects (or impacts) described below follow the guidelines in CEQA *Appendix G* to aid in the environmental review process conducted by the County. Direct effects are caused by a project at the same time and place, and occur as a direct result of project activities. Indirect effects are caused by a project, but occur at a different time or place, such as in an adjacent area and occurring incidental to project activities. Cumulative effects are those that result from when the effects of the subject project combine with effects from other unrelated projects to compound environmental harm. Mitigation measures to reduce project impacts below the threshold of significance are provided below.

4.1 Direct and Indirect Effects

The construction of the new concrete swale would occur within a disturbed area under the canopy of Monterey Pine Forest where existing concrete swales, broken asphalt, and disturbed Non-native Grassland are present. An eroded area on the slope and at the outlet of the storm drain pipe would be directly and permanently affected by the installation of rock slope protection or rip rap. A concrete headwall at the inlet of the storm drain pipe would also be a permanent impact that would be focused in an existing disturbed area. It is anticipated that temporary effects would occur around these features during construction activities. The storm drain will be placed on top of the ground surface and there would be some temporary disturbance associated with placing it on the slope and anchoring it in place. Vegetation may need to be cleared along the edge of the existing pipe where the new pipe will be placed, and downed trees and debris moved in order for it to evenly make contact with the ground surface. Noise and disturbance during construction could also indirectly affect the behavior of wildlife in the surrounding area. Stormwater runoff over disturbed soils could result if the work were to take place during winter months, and eroded soils could be

deposited on the Santa Rosa Creek floodplain if these areas were not stabilized with appropriate erosion controls. Due to the topography of the floodplain and space between the toe of slope and Santa Rosa Creek corridor, the project is not expected to effect water quality or riparian/wetland resources in Santa Rosa Creek.

4.1.1 Potential Adverse Effects on Candidate, Sensitive or Special-status Species

The background review identified a number of special-status plant and animal species documented from the region that were evaluated for their potential to occur in the study area. Not all species with potential to occur onsite may be directly or indirectly affected by the project, especially for migratory species that may be present only at specific times of the year. Evaluating whether impacts would be significant under CEQA involves an assessment of how each species would use the site relative to its life history, what features may be used, and when they would occur relative to when project activities take place.

The background review determined that there is suitable habitat for several special-status plant species onsite, and one of these (Monterey pine) occurs throughout the site. The focused botanical surveys were conducted during the blooming period of each of the species on the target list, and no rare plants other than Monterey pine were observed. Although the location of the new storm drain pipe was not thoroughly searched due to very dense vegetation including poison oak, the site visits were sufficient to determine that no rare plants are present in the project disturbance area. The steeply vegetated slope could support species such as Cambria morning glory, Gairdner's yampah, Michael's rein orchid, and saint's daisy, but these are watch list species that would not be significantly impacted by the proposed installation of a new storm drain pipe. No Monterey pine trees are expected to be removed, and ground disturbance within the critical root zones of several trees in proximity to the work can be minimized during construction to avoid significant impacts (see trunk locations in Appendix A). Still some work may occur in the critical root zones for both Monterey pine and coast live oak trees, and mitigation for impacts to these trees will be required.

Several special-status animal species have potential to occur in the study area and our evaluation further separates them into two categories: 1) those that would only use the site periodically while foraging or moving through the site, without using the area for breeding or other key life history traits, and for which project impacts would be less than significant or no effect; or 2) those that could be present on a more permanent basis or individuals that are not mobile enough to be able to escape mortality or injury, and in which there may be potentially significant impacts. Invertebrates and birds that use the site for foraging or on a transitory basis are expected to move away from any temporary disturbance during construction activities. Although disruption of normal activities would be a temporary "effect", the impact would be less than significant under CEQA as long as they are not injured or killed, and aerial foraging may continue once the project is constructed. If an active bird nest was destroyed during construction activities, then impacts on nesting birds would be significant pursuant to CEQA and in violation of the MBTA. There would be no impact on the foraging behavior of special-status bat species because construction activities will be conducted during the day and bats are nocturnal. Additionally, no bat roost sites would be disturbed from the proposed project. This analysis determined that individuals of special-status animal species which could be present onsite on a transitory basis while foraging, including birds that would not nest in this area, and for which the effects of project activities are expected to be less than significant are monarch, obscure bumble bee, American peregrine falcon, bald eagle, California gull, ferruginous hawk, golden eagle, merlin, northern harrier, osprey, rufous hummingbird, sharp-shinned hawk, yellow-billed magpie, yellow warbler, fringed myotis, hoary bat, long-legged myotis, pallid bat, Townsend's big-eared bat, western red bat, western small-footed myotis, white-tailed kite, and Yuma myotis.

There may be potentially significant impacts of the project on the California newt, California red-legged frog, southwestern pond turtle, Allen's hummingbird, California horned lark, Cooper's hawk, loggerhead shrike, Nuttall's woodpecker, oak titmouse, wrentit, Monterey dusky-footed woodrat and other protected species of nesting birds. The newt, frog, turtle and woodrat could be in dense vegetation on the slope where there would be ground disturbance to construct the concrete headwall, rip rap field and anchor the storm drain pipe. Depending on the time of year, individuals of these species may be taking refuge under dense vegetation or downed trees that may need to be cleared so that the pipe is flush with the ground. Preconstruction surveys and avoidance measures to reduce project effects on special-status animal species are described below. Several special-status bird species and other common bird species that are protected under the MBTA and California Fish and Game Code could nest in the project impact area or be in close enough proximity that construction disturbance could affect nesting activity resulting in nest abandonment. Project impacts on nesting birds are potentially significant under CEQA, and mitigation to avoid effects would be required as described below.

The project area is within designated critical habitat for the California red-legged frog. The lower slope would be suitable upland and dispersal habitat. Only a very small amount of this habitat will be impacted for the construction of the rip rap pad and anchoring the lower end of the storm drain pipe, and these effects would be less than significant from both a biological resources and CEQA compliance perspective. The installation of the storm drain pipe on the ground surface would have no adverse effect on critical habitat because vegetation will not be permanently lost and frogs could still utilize the slope once construction is complete. No indirect effects on steelhead critical habitat in Santa Rosa Creek are expected from erosion or stormwater runoff carrying hazardous substances from equipment leaks due to the distance of level floodplain between the project area and stream. The following impact statements and recommended mitigation measures are proposed to ensure the project's impacts to biological resources are less than significant pursuant to CEQA.

Impact BIO-1. Ground disturbance may adversely affect Monterey pine trees, a special-status plant species, and coast live oak trees. This is a potentially significant but mitigable impact.

No trees are proposed for removal to construct the project, but the site plans show that the new concrete swale system will be constructed in close proximity to the trunks of several trees. The limits of ground disturbance, tree canopies and species are not depicted in detail on the site plans (refer to Appendix A). As described above, within its native range, Monterey pine is considered to be a rare plant and the Monterey Pine Forest is considered to be a sensitive natural community. The Monterey Pine Forest onsite is also considered to be an SRA by the County of San Luis Obispo. The primary work area is in a disturbed ruderal zone that is regularly maintained by the HOA, and does not support truly functioning Monterey Pine Forest habitat functions or values. Still, excavation to construct the new concrete swales and install rock slope protection could occur in the critical root zones of both the Monterey pine and coast live oak.

The *General Plan Open Space and Conservation Element*, Policy BR 3.1 "Native Tree Protection" pertains to "biologically valuable trees, oak woodlands, trees with historical significance, and forest habitats". Native trees shall be avoided to the extent possible through site design, and when they cannot be avoided, mitigation is required through a tree placement and monitoring plan (Implementation Strategy BR 3.2.1; County 2015). The County reviews discretionary development proposals for compliance with the Oak Woodlands Preservation Act (PRC Section 21083.4) to maintain the integrity and diversity of oak woodlands (Implementation Strategy BR 3.3.1). County policies usually require onsite mitigation for oak trees by replanting the same species at specified

ratios for removed and impacted trees. In the *North Coast Area Plan* (NCAP; County 2022) and the County's Pre-Application Meeting Summary (October 3, 2024) for the project, the County has determined that required replacement ratios are 4:1 for Monterey pines at least six inches in diameter removed (number to be replanted to the number removed); 2:1 for Monterey pines impacted through disturbance to the root zone or excessively trimmed; 6:1 for coast live oak trees at least four inches in diameter removed; and, 3:1 for coast live oak trees impacted. Further, the Pre-Application Meeting Summary states that trees that are limbed during the work shall also be considered impacted and subject to the replacement requirements. Impacted trees are also those in which there is grading, soil compaction, or placement of fill or structures within the critical root zone; disturbance to surface roots; or, damage to the trunk. The NCAP Cambria Urban Area Standard 1C requires that a tree inventory be conducted and shown on project plans, including which trees are to be retained and which are proposed for removal, as well as trees that will be trimmed (County 2022).

The site plans show locations of tree trunks in the project area, but does not provide size or health information. If ground disturbance will occur within the critical root zone of Monterey pine or coast live oak trees, these trees would be considered to be impacted trees subject to mitigation. A tree's critical root zone is defined as the portion of the root system that is the minimum necessary to maintain vitality or stability of the tree. It is the area in which the root system provides anchorage, absorption of water and minerals, storage of food reserves, and synthesis of organic materials necessary for its health and stability. Encroachment or damage to the critical root zone could put the tree at risk of failure. The critical root zone of native Monterey pine trees is determined by taking the tree's diameter at breast height (dbh; 4.5 feet from the ground) measured in inches, multiplying that number by 1.5, and using the result as the number of feet for the radius of the area that shall be protected during construction. The critical root zone of native oak trees is typically 1.5 times the average canopy radius, or at minimum, the dripline of the canopy.

Because impacts on Monterey pine and oak trees would require mitigation, additional information is needed to determine the final number of trees required to be replanted under County mitigation requirements. The following mitigation measures should be followed to guide compliance with local tree protection policies.

Mitigation Measure BIO-1a: Conduct a tree inventory. A tree inventory shall be performed by a County-approved, qualified biologist or certified arborist for any native trees within 50 feet of the limits of disturbance. The limits of disturbance shall be staked in the field under the direction of the project engineer prior to the tree inventory. The inventory shall document each of the Monterey pine trees that are at least six (6) inches dbh (County 2022), and each of the coast live oak trees at least four (4) inches dbh. Each tree shall be identified to species, assigned a unique number, and dbh measured for each trunk or major (≥ 4 inch) branch that splits below approximately 4.5 feet. A qualitative value of each tree's condition shall be recorded. An aluminum tag imprinted with the identifying number can be affixed to the north side of the tree at approximately four (4) feet above the ground to aid in the identification of individual trees. The locations of each tree and its number shall be recorded using a Global Positioning System or mapped by a licensed surveyor. Native trees shall be depicted on a map showing canopy limits and trunk locations. This information shall be provided to the engineer to be shown on all project plans. A report shall be prepared detailing the methods and results of the tree inventory and submitted to the County as an addendum to this BRA. The report shall have a table that details the trees to be removed and those expected to be impacted, along with the number required to be replanted under current mitigation ratios.

Mitigation Measure BIO-1b: *Employ tree protection measures during construction.* Methods prescribed in the *Cambria Forest Management Plan* (Cambria Forest Committee 2002) and the NCAP Cambria Urban Area Standard 1C shall be implemented in addition to the following:

- a) Install orange construction fencing around areas to be protected outside of the limits of disturbance as shown on site plans;
- b) Avoid soil compaction within the critical root zone;
- c) Protect the trunk by wrapping with wood fencing, heavy materials or other barriers;
- d) Dispose of waste, paints, solvents and other hazardous substances offsite by approved environmental standards;
- e) Equipment storage and staging shall be in designated areas;
- f) Materials, including debris and soil, shall not be stockpiled within 15 feet of the tree and removed frequently throughout construction;
- g) Excavation shall avoid root systems of all trees onsite and on abutting properties, and any trenching within the dripline shall be carefully done and hand dug as needed to protect primary roots; and,
- h) No more than one-third of the drip line around any tree should be disturbed from pruning.

Mitigation Measure BIO-1c: *Conduct remedial measures for any project activities conducted within the critical root zone.* Should any large (>1 inch in diameter) roots be damaged during ground disturbance near native trees, they shall be clean cut and not left above the ground to maintain the health of the specimen. Soils within the critical root zone that have been compacted by construction activities shall be aerated as soon as possible. Methods may include water jetting, careful shallow ripping that radiates out from the trunk (no cross-root ripping), adding a 4 to 6-inch layer of chip mulch, or boring small holes with an auger. A certified arborist shall advise construction personnel in the field about the appropriate methods for soil aeration and whether fertilizer or mycorrhizal inoculation applications should be applied. Any exposed roots shall be reburied by the end of the day, or if left exposed for more than one day, covered with burlap or other suitable material and wetted down twice per day until covered with soil. Damaged roots shall be treated within 24 hours by a certified arborist to inhibit fungus, insects, or other disease damage. Trees with root damage incurred during the project shall be counted as impacted trees subject to mitigation.

Mitigation Measure BIO-1d: *Implement methods to prevent or reduce the potential for spread of disease.* In order to prevent or reduce the spread of disease from pine pitch canker, bark beetles or other diseases that affect Monterey Pine Forest, the following methods shall be implemented, as required in the NCAP (County 2022):

- a) Infected or contaminated material shall not be transported to areas that are free of disease;
- b) When cutting or pruning a diseased tree, tools shall be cleaned with a disinfectant before using them on uninfected branches or other trees;
- c) Disease and insect buildup shall be avoided by promptly removing and disposing of dead pine material by either burning (as appropriately authorized), burying, tarping with clear plastic for six months, or chipping. If material is chipped, it should be spread onsite in a thin layer; and
- d) Plant material shall be covered or enclosed when it is taken offsite to avoid dispersal of material contaminated with bark beetles.

Mitigation Measure BIO-1e: Prepare and implement a Native Tree Mitigation Plan. A Native Tree Mitigation Plan shall be prepared by a County-approved, qualified botanist or certified arborist for mitigation of each removed or impacted Monterey pine and coast live oak tree, and submitted to the County for approval. The plan shall describe the methods and techniques to be used to replant removed Monterey pine trees at a 4:1 ratio (i.e., 4 trees planted for every tree removed) and coast live oak trees removed at a 6:1 ratio. For Monterey pine trees that are impacted, a mitigation ratio of 2:1 shall be employed, and 3:1 for coast live oak trees that are impacted (County 2022; *Pre-Application Meeting Summary*, County 2024). Impacted trees are defined as those that are excessively trimmed; in which there is grading, soil compaction, or placement of fill or structures within the critical root zone; disturbance to surface roots; or, damage to the trunk. Replacement trees shall be the same species removed, of local origin and grown in containers at least one gallon in size. The trees shall be planted in areas of the property that will not be affected by future development or other site uses. The plan shall address the following elements:

- a) An implementation schedule and description of techniques: An irrigation system (i.e., drip system) or plan for irrigation shall be in place prior to planting. Planting shall be outside of the warm, dry season, and be conducted from October through May. Planting procedures (i.e., dimensions of planting hole, planting tablets, soil shaping around plant, initial deep watering, caging to prevent herbivory) shall be specified. The *Cambria Forest Management Plan* Appendix B provides guidelines for planting trees within the Cambria forest, including replacing landscape trees (Cambria Forest Committee 2002). This resource should be consulted and the methods specified therein incorporated into the replanting plan.
- b) Maintenance methods and schedule: These methods shall include weeding, adjustments to the watering schedule, and maintenance of the irrigation system and herbivore cages. Weeds should be maintained at least 3 feet away from each planting.
- c) Monitoring methods, performance standards and monitoring schedule: Monitoring of the plantings shall be conducted at least once per year for a period of at least three years, or until the plantings have successfully become established. Typically, tree replacement plantings are maintained and monitored for seven years. Tree health performance standards and other success criteria shall be determined for each annual monitoring period. Monitoring shall be conducted by a qualified biologist or arborist with experience in the Monterey pine forest, who shall prepare annual monitoring reports to be submitted to the County. Adaptive management and remedial actions shall be prescribed if the performance standards are not met for any of the annual monitoring periods. If the mitigation effort does not meet annual performance standards, then adaptive management including the installation of additional trees shall be conducted to meet the plan's final success criteria.
- d) An As-built Planting Plan (map) shall be prepared to track the replacement trees and included with the first monitoring report.
- e) Annual reports detailing monitoring of the mitigation effort shall be prepared by a County-approved qualified biologist or arborist with experience in the Monterey pine forest, and submitted to the County by December 31st of each year following planting for a minimum of seven years to ensure meeting success criteria.

Implementation of Mitigation Measures BIO-1a through 1e would reduce adverse effects on native Monterey pine and oak trees protected by the County to a less than significant level pursuant to CEQA.

Impact BIO-2. Implementation of the proposed project may adversely affect special-status animal species. This is a potentially significant but mitigable impact.

The California newt, California red-legged frog, southwestern pond turtle, and Monterey dusky-footed woodrat could potentially occur in the dense understory on the steep slope where the new storm drain pipe will be installed. Individuals could be injured or killed during ground disturbing activities to anchor the pipe, construct the concrete headwall and rip rap field, vegetation removal to clear a path for the pipe, or other activities for its installation. The following mitigation measure is required to avoid project effects to special status animals.

Mitigation Measure BIO-2: Conduct a preconstruction survey for wildlife and avoid construction in any area with special-status animal species. Within 48 hours prior to the start of vegetation removal or ground disturbance, a County-approved, qualified biologist shall survey impact areas plus a 25-foot buffer for special-status animals. A search through dense vegetation and cover objects shall be conducted for individuals of the California newt, California red-legged frog, southwestern pond turtle, and stick houses of the Monterey dusky-footed woodrat. If any individuals of special-status animals are found within the impact area or would otherwise be at risk during construction, work activities shall be delayed in that particular area and the animal allowed to leave the work zone on its own volition. The biologist shall monitor the area to determine when individuals of special-status species have left and work can proceed.

The biologist shall prepare a report detailing the methods and results of the wildlife preconstruction survey that will be submitted to the County. The report should detail any special-status species found during the survey and measures taken for their avoidance. Observations of special-status species shall be submitted to the CNDDB.

Impact BIO-3. Construction activities may adversely affect nesting of special-status species as well as avian species protected under the Migratory Bird Treaty Act and California Fish and Game Code. This is a potentially significant but mitigable impact.

If construction activities for the project are initiated during the nesting season (February 1st to August 31st), impacts on protected nesting birds could occur. Although no trees are expected to be removed, some species could nest in the dense understory where the storm drain pipe will be installed and may be directly affected. Additionally, noise and physical disturbance could disrupt nesting behavior in adjacent trees or the surrounding areas causing the adults to abandon the nest or disrupt their nesting behavior. Direct mortality of eggs and/or chicks, nest failure, or nest abandonment are considered significant effects under CEQA. A preconstruction survey and avoidance measures if any active nests are found are required if construction activities coincide with the nesting season.

Mitigation Measure BIO-3: Conduct a preconstruction nesting bird survey and avoid active nests. For any phase of work activities scheduled to start between February 1st and August 31st, a qualified biologist shall survey the project impact area plus a 250-foot buffer on the property and surrounding areas where offsite nesting substrates can be viewed using binoculars from the subject property or public streets. The survey shall be conducted within seven days before the initiation of construction for the project (i.e., surveys shall be repeated if there is a pause between any of the phases). During the survey, the qualified biologist shall search for birds exhibiting nesting behavior, attempt to locate their nests, and inspect all potential nest substrates in the survey area. Any nests identified shall be monitored to determine if they are active. If no active nests are found,

construction may proceed. If an active nest is found, a buffer shall be established around the nest (50 feet for songbirds and 250 feet for raptors). The buffer shall be delineated with flagging, and no work shall take place within the buffer area until the young have left the nest, as determined by the qualified biologist. Once nesting has ceased and the young are no longer reliant on the nest, project activities can commence in the buffer zone. The biologist shall submit a report detailing the methods and results of the nesting bird preconstruction survey to the County. The report should detail any active nests found and measures taken for avoidance.

Implementation of Mitigation Measures BIO-2 and BIO-3 would reduce adverse effects on special-status animals, including nesting birds, to less than significant level pursuant to CEQA.

4.1.2 Adverse Effects on Riparian Habitat or Sensitive Natural Communities

There is no riparian habitat onsite, and riparian vegetation along Santa Rosa Creek at least 415 feet (126 meters) to the north and is separated from the site by a level floodplain. Therefore, the project would have no direct or indirect effects on riparian habitat. Project effects on Monterey Pine Forest as a sensitive natural community are described above in Section 4.1.1, and would be minimal since the primary work area is in a disturbed ruderal zone under an open canopy of Monterey pines. Implementation of Mitigation Measures BIO-1a through 1e would reduce project effects on sensitive natural communities as well as individual trees to a less than significant level pursuant to CEQA.

4.1.3 Protected Wetlands

There is no wetland habitat onsite, and Riverine habitat along Santa Rosa Creek at least 583 feet (178 meters) to the north and is separated from the site by a level floodplain. Therefore, no effects on protected wetlands would occur from the proposed project.

4.1.4 Interference with Movement of Native Fish or Wildlife, Wildlife Corridors, and Wildlife Nursery Sites

There is no fish habitat on or near the site. The project area is located adjacent to the Fiscalini Ranch Preserve (East Ranch) and Santa Rosa Creek, which is expected to be a wildlife corridor between the coast and undeveloped lands to the east of Cambria. Wildlife moving along this corridor may use the Monterey Pine Forest on the slope in the study area for cover or foraging during movement, but it is very steep and not high quality for movement. The proposed project will not affect the structure of this habitat or its potential use by wildlife during movement along the corridor in the long-term. There could be minor short-term impacts during construction in which individuals may avoid the project area, but mitigation measures are recommended to avoid adverse impacts to individuals or their habitat. No significant food resources or aquatic habitats are present onsite, and the upper (southern) portion of the site is disturbed by past development, ongoing vegetation clearance and surrounding residential uses. Therefore, the part of the site where the primary work would occur is not expected to be used as a wildlife nursery site.

The project would not interfere with the movement of native fish or wildlife, and there would be no effects on wildlife corridors or wildlife nursery sites.

4.1.5 Conflicts with Local Policies or Ordinances, Such as Tree Preservation

The project is located in the Coastal Zone, North Coast Planning Area, Cambria Urban Reserve Line, and has a combining designation for Monterey Pine Forest Habitat (SRA) (TH) (County 2017). The

Coastal Zone Land Use Ordinance (CZLUO) describes Sensitive Resource Area (SRA) combining designations to identify areas with special environmental qualities, rare vegetation, and habitat resources (County 2018a). The purpose of these combining designation standards is to ensure that proposed development be designed in consideration of and for the protection of sensitive resources to satisfy the requirements of the California Coastal Act. Terrestrial habitat protection (Section 23.07.176) is intended to protect rare and endangered species of plants and animals with a focus on preserving the entire ecological community rather than individual species (County 2018a). The *North Coast Area Plan* (NCAP) details that the purpose of the Monterey Pine Forest Habitat combining designation is to minimize tree removal and avoid impacts to this sensitive habitat (County 2022). Cambria Urban Area Standard 1 requires that applications for development within this SRA may require the preparation of a biological report. Terrestrial habitat protection and replacement measures are required under the NCAP (County 2022) and CZLUO (County 2018a). The NCAP Standard 10 for SRAs and the Cambria Urban Area Standard 1A requires the native vegetation be retained as much as possible and that proposed uses are located in the least sensitive portion of a property. The NCAP Standard 14 Tree Preservation states that when Monterey pines greater than 6-inches in diameter are removed for development projects, that they shall be replaced with native stock.

The *Coastal Plan* Environmentally Sensitive Habitat Policy 30 calls for the protection of native trees whenever possible (County 2007). Additionally, the *General Plan Open Space and Conservation Element*, Policy BR 3.1 "Native Tree Protection" pertains to "biologically valuable trees, oak woodlands, trees with historical significance, and forest habitats". Native trees shall be avoided to the extent possible through site design, and when they cannot be avoided, mitigation is required through a tree placement and monitoring plan (Implementation Strategy BR 3.2.1; County 2015).

The project has been designed to minimize disturbance in the more sensitive habitat areas by: 1) placing the new concrete swale in an area already disturbed by existing asphalt; 2) locating the new upsized storm drain pipe adjacent to the existing pipe; and, 3) placing the pipe above-ground to minimize the amount of ground disturbance and tree impacts. Project impacts on Monterey Pine Forest and native trees have been described under Impact BIO-1, and Mitigation Measures BIO-1a through -1e have been prescribed as mitigation for this impact. No additional mitigation is required for reducing conflicts with local policies and ordinances, including tree preservation.

Should any significant ground disturbance occur that increases the erosion potential on the site, the project engineer would direct the installation of appropriate erosion controls and other Best Management Practices to ensure the disturbance area is stabilized.

4.1.6 Conflicts with Local, Regional or State Conservation Plans

No local, regional or state conservation plans, including adopted Habitat Conservation Plans or Natural Community Conservation Plans, have been prepared for the area in which the project is located (Data Basin 2025); therefore, there would be no conflicts with conservation plans.

4.2 Cumulative Effects

The proposed project has a relatively small footprint and would not result in the loss of habitat. The concrete swale would be constructed in a disturbed area, and rock slope protection would be situated in existing disturbed areas. While there may be impacts on the critical root zones of native Monterey pines and oak trees, these impacts will be fully mitigated through implementation of a tree mitigation and monitoring plan described under Mitigation BIO-1e. The storm drain pipe will be placed above-ground to minimize ground disturbance, and will be situated next to the existing

pipe. Improvements to the storm drainage features onsite will ultimately protect the hillside from further erosion and resulting habitat impacts. Preconstruction surveys and avoidance measures described herein as mitigation would avoid and minimize project effects on special-status species and biological resources to less than significant level pursuant to CEQA.

5.0 CONCLUSIONS

The project has been designed to avoid and minimize impacts on Monterey Pine Forest habitat and will protect this habitat by preventing future erosion. Although no native trees are expected to be removed, ground disturbance in the critical root zone or trimming may be required, which would trigger the need to plant additional trees. No other special-status plant species are expected to be within the project impact area, and although several watch list plants may occur on the steep slope, they would not be permanently impacted by the placement of the new storm drain pipe. Individuals of special-status animal species could occur on the densely vegetated slope where the storm drain pipe will be located, and preconstruction surveys and avoidance measures will be implemented to ensure that they are not harmed during the work. All potential impacts of the project would be mitigated to less than significant levels pursuant to CEQA.

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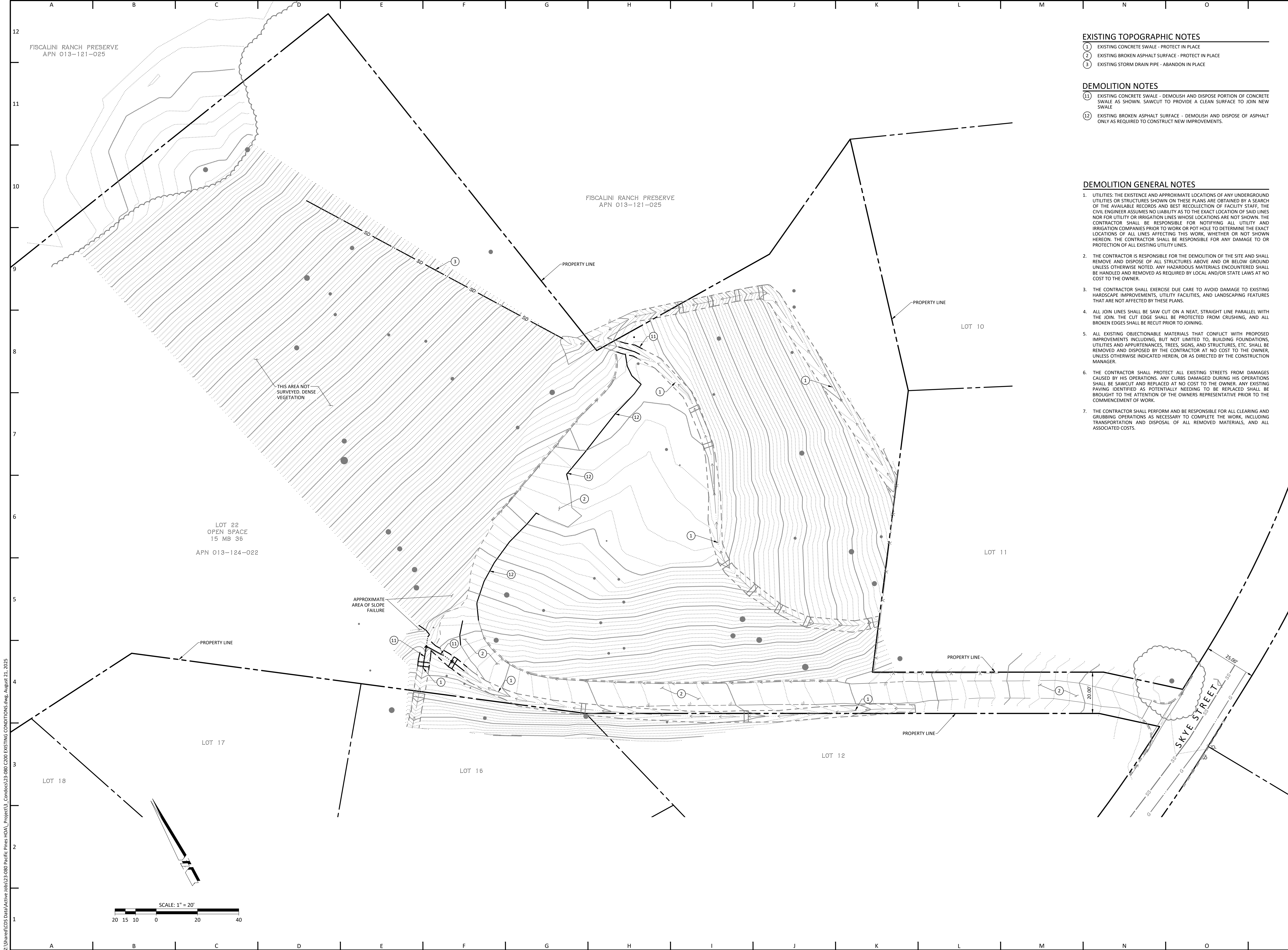
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APPENDIX A

Site Plans





EXISTING TOPOGRAPHIC NOTES

- ① EXISTING CONCRETE SWALE - PROTECT IN PLACE
- ② EXISTING BROKEN ASPHALT SURFACE - PROTECT IN PLACE
- ③ EXISTING STORM DRAIN PIPE - ABANDON IN PLACE

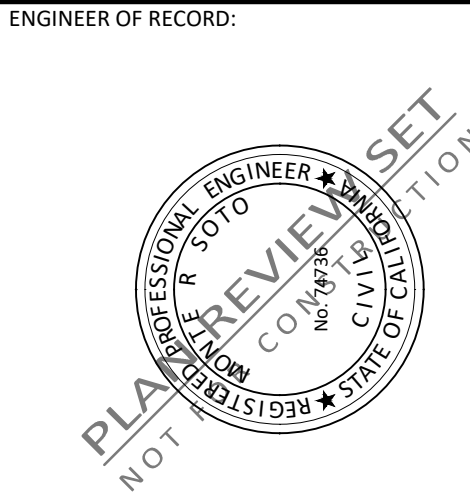
DEMOLITION NOTES

- ⑪ EXISTING CONCRETE SWALE - DEMOLISH AND DISPOSE PORTION OF CONCRETE SWALE AS SHOWN. SAWCUT TO PROVIDE A CLEAN SURFACE TO JOIN NEW SWALE
- ⑫ EXISTING BROKEN ASPHALT SURFACE - DEMOLISH AND DISPOSE OF ASPHALT ONLY AS REQUIRED TO CONSTRUCT NEW IMPROVEMENTS.

DEMOLITION GENERAL NOTES

- UTILITIES: THE EXISTENCE AND APPROXIMATE LOCATIONS OF ANY UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS AND BEST RECOLLECTION OF FACILITY STAFF. THE CIVIL ENGINEER ASSUMES NO LIABILITY AS TO THE EXACT LOCATION OF SAID LINES NOR FOR UTILITY OR IRRIGATION LINES WHOSE LOCATIONS ARE NOT SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY AND IRRIGATION COMPANIES PRIOR TO WORK OR POT HOLE TO DETERMINE THE EXACT LOCATIONS OF ALL LINES AFFECTING THIS WORK, WHETHER OR NOT SHOWN HEREON. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO OR PROTECTION OF ALL EXISTING UTILITY LINES.
- THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION OF THE SITE AND SHALL REMOVE AND DISPOSE OF ALL STRUCTURES ABOVE AND OR BELOW GROUND UNLESS OTHERWISE NOTED. ANY HAZARDOUS MATERIALS ENCOUNTERED SHALL BE HANDLED AND REMOVED AS REQUIRED BY LOCAL AND/OR STATE LAWS AT NO COST TO THE OWNER.
- THE CONTRACTOR SHALL EXERCISE DUE CARE TO AVOID DAMAGE TO EXISTING HARDSCAPE IMPROVEMENTS, UTILITY FACILITIES, AND LANDSCAPING FEATURES THAT ARE NOT AFFECTED BY THESE PLANS.
- ALL JOIN LINES SHALL BE SAW CUT ON A NEAT, STRAIGHT LINE PARALLEL WITH THE JOIN. THE CUT EDGE SHALL BE PROTECTED FROM CRUSHING, AND ALL BROKEN EDGES SHALL BE RECUT PRIOR TO JOINING.
- ALL EXISTING OBJECTIONABLE MATERIALS THAT CONFLICT WITH PROPOSED IMPROVEMENTS INCLUDING, BUT NOT LIMITED TO, BUILDING FOUNDATIONS, UTILITIES AND APPURTENANCES, TREES, SIGNS, AND STRUCTURES, ETC. SHALL BE REMOVED AND DISPOSED BY THE CONTRACTOR AT NO COST TO THE OWNER, UNLESS OTHERWISE INDICATED HEREIN, OR AS DIRECTED BY THE CONSTRUCTION MANAGER.
- THE CONTRACTOR SHALL PROTECT ALL EXISTING STREETS FROM DAMAGES CAUSED BY HIS OPERATIONS. ANY CURBS DAMAGED DURING HIS OPERATIONS SHALL BE SAWCUT AND REPLACED AT NO COST TO THE OWNER. ANY EXISTING PAVING IDENTIFIED AS POTENTIALLY NEEDING TO BE REPLACED SHALL BE BROUGHT TO THE ATTENTION OF THE OWNERS REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF WORK.
- THE CONTRACTOR SHALL PERFORM AND BE RESPONSIBLE FOR ALL CLEARING AND GRUBBING OPERATIONS AS NECESSARY TO COMPLETE THE WORK, INCLUDING TRANSPORTATION AND DISPOSAL OF ALL REMOVED MATERIALS, AND ALL ASSOCIATED COSTS.

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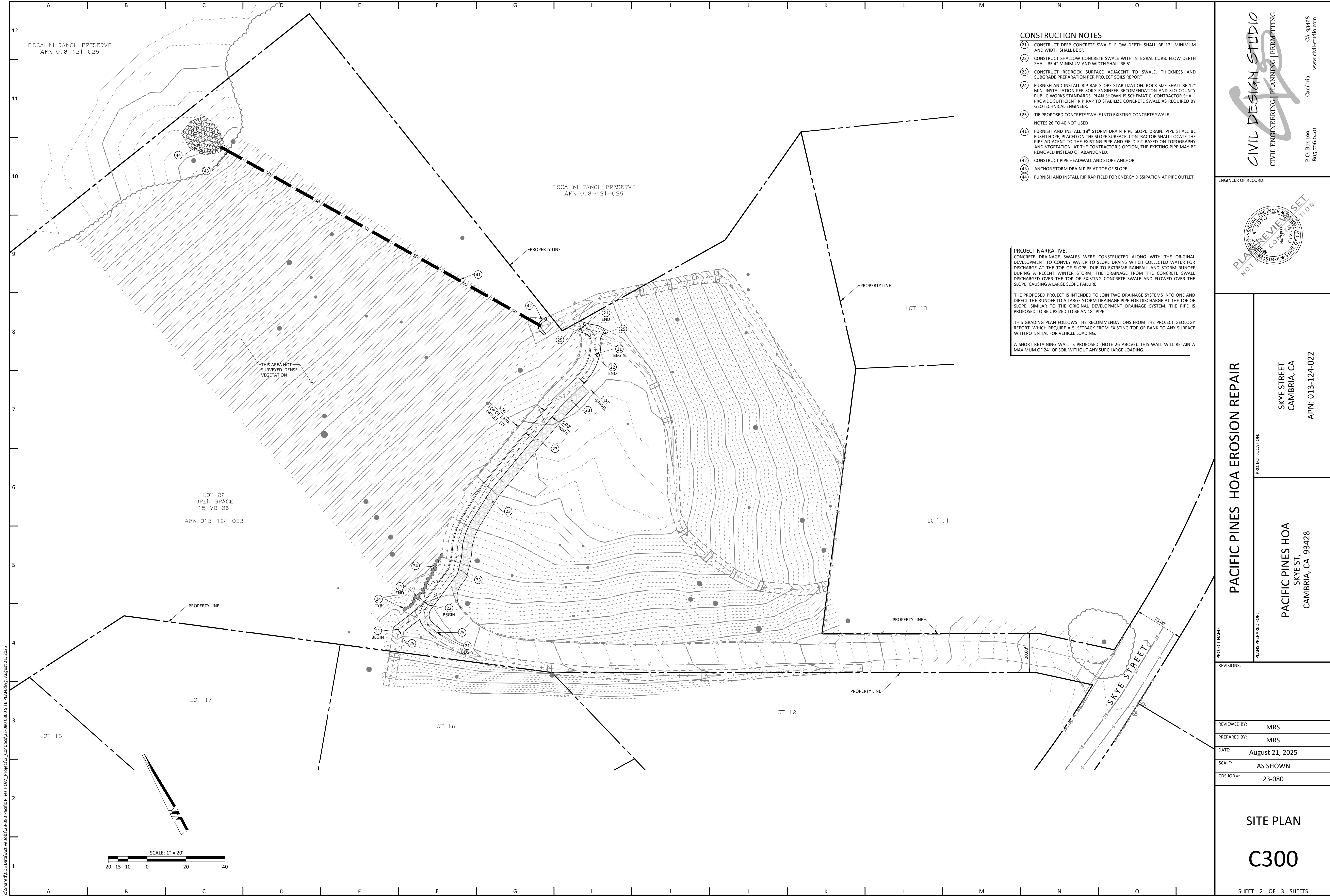
PACIFIC PINES HOA EROSION REPAIR

SKYE STREET
CAMBRIA, CA
APN: 013-124-022

PACIFIC PINES HOA
SKYE ST.
CAMBRIA, CA 93428

REVIEWED BY: MRS
PREPARED BY: MRS
DATE: August 21, 2025
SCALE: AS SHOWN
CDS JOB #: 23-080

EXISTING
CONDITIONS
C200



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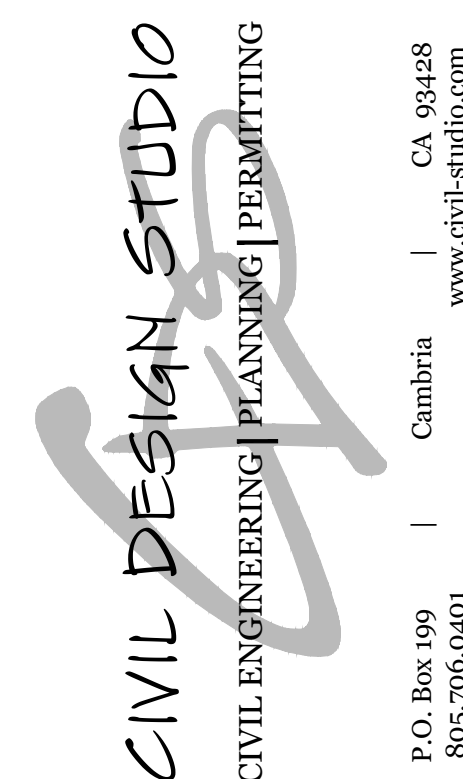
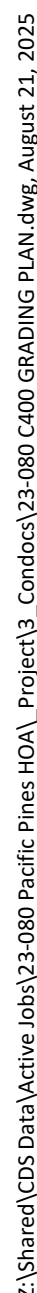
PACIFIC PINES HOA EROSION REPAIR

PROJECT LOCATION:
SKYE STREET
CAMBRIA, CA
APN: 013-124-022

PLANS PREPARED FOR:
PACIFIC PINES HOA
SKYE ST.
CAMBRIA, CA 93428

REVISIONS:	
REVIEWED BY:	MRS
PREPARED BY:	MRS
DATE:	August 21, 2025
SCALE:	AS SHOWN
CDS JOB #:	23-080

SITE PLAN
C300



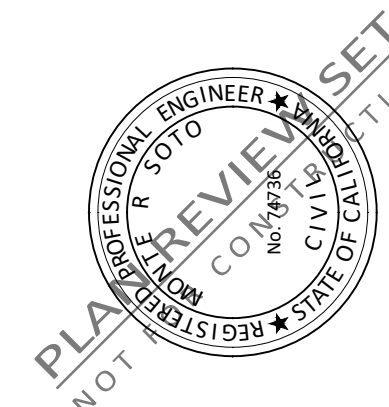
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PACIFIC PINES HOA EROSION REPAIR

PR:

SKYE STREET
CAMBRIA, CA
APN: 013-124-022

APN: 013-124-022

PROJECT NAME:

REVISIONS

REVIEWED BY: MRS

PREPARED BY: MRS

DATE: August 21, 2025

SCALE: AS SHOWN

CDS JOB #: 23-080

GRADING PLAN AND SWALE PROFILE

C400

SHEET 3 OF 3 SHEETS

APPENDIX B

List of Plants and Animals Observed



Appendix B. List of Plants and Animals Observed Onsite During the Site Visits

Scientific Name	Common Name
Plants	
<i>Achillea millefolium</i>	Yarrow
<i>Avena barbata</i> *	Slender wild oat
<i>Briza maxima</i> *	Rattlesnake grass
<i>Bromus diandrus</i> *	Ripgut brome
<i>Bromus hordeaceus</i> *	Soft chess
<i>Bromus sitchensis</i> var. <i>carinatus</i>	California brome
<i>Callistomon</i> sp.*#	Bottle brush
<i>Carduus pycnocephalus</i> *	Italian thistle
<i>Cirsium occidentale</i> var. <i>occidentale</i>	Cobwebby thistle
<i>Cirsium vulgare</i> *	Bull thistle
<i>Clinopodium douglasii</i>	Yerba buena
<i>Conyza canadensis</i>	Canada horseweed
<i>Cortaderia jubata</i> *	Jubata grass
<i>Crocosmia xrococsmiiflora</i> *	Monbretia
<i>Danthonia californica</i>	California oat grass
<i>Delairea odorata</i> *	Cape ivy
<i>Dodonaea viscosa</i> *#	Hopseed bush
<i>Echium</i> sp.*#	Echium
<i>Festuca arundinacea</i> *	Reed fescue
<i>Festuca perennis</i> * (= <i>Lolium multiflorum</i>)	Italian rye grass
<i>Festuca</i> (= <i>Vulpia</i>) <i>myuros</i>	Rattail sixweeks grass
<i>Frangula</i> (= <i>Rhamnus</i>) <i>californica</i>	California coffee berry
<i>Fremontodendron</i> sp.*#	Flannelbush
<i>Galium aparine</i>	Goose grass
<i>Galium porrigens</i>	Climbing bedstraw
<i>Geranium dissectum</i> *	Wild geranium
<i>Gnaphalium</i> sp.	Cudweed
<i>Heteromeles arbutifolia</i>	Toyon
<i>Hirschfeldia incana</i> *	Summer mustard
<i>Hordeum murinum</i> ssp. <i>leporinum</i> *	Hare barley
<i>Hypochaeris glabra</i> *	Smooth cat's-ear
<i>Iris</i> sp.*	Iris
<i>Liquidambar</i> sp.*#	Sweetgum
<i>Lonicera hispidula</i>	Pink honeysuckle
<i>Luzula comosa</i>	Hairy wood rush
<i>Medicago polymorpha</i> *	California burclover
<i>Myoporum</i> sp.*#	Myoporum
<i>Oxalis pes-caprae</i> *	Bermuda buttercup
<i>Pinus radiata</i>	Monterey pine
<i>Plantago lanceolata</i> *	English plantain
<i>Prunus</i> sp.*#	Fruit trees
<i>Pteridium aquilinum</i> var. <i>pubescens</i>	Western bracken fern
<i>Quercus agrifolia</i>	Coast live oak
<i>Ramalina menziesii</i>	Lace lichen
<i>Rubus ursinus</i>	California blackberry
<i>Rumex acetosella</i> *	Sheep sorrel
<i>Sanicula crassicaulis</i>	Pacific sanicle

Scientific Name	Common Name
<i>Silybum marianum</i> *	Milk thistle
<i>Sonchus asper</i> *	Prickly sow-thistle
<i>Stachys bullata</i>	California hedge nettle
<i>Toxicodendron diversilobum</i>	Poison oak
<i>Vicia sativa</i> *	Spring vetch
<i>Vinca major</i> **	Greater periwinkle
Animals	
<i>Buteo jamaicensis</i>	Red-tailed hawk
<i>Calypte anna</i>	Anna's hummingbird
<i>Cathartes aura</i>	Turkey vulture
<i>Empidonax difficilis</i>	Western flycatcher
<i>Haemorhous mexicanus</i>	House finch
<i>Junco hyemalis</i>	Dark-eyed junco
<i>Melanerpes formicivorus</i>	Acorn woodpecker
<i>Melospiza melodia</i>	Song sparrow
<i>Melospiza crissalis</i>	California towhee
<i>Odocoileus hemionus columbianus</i>	Black-tailed deer
<i>Pipilo maculatus</i>	Spotted towhee
<i>Poecile rufescens</i>	Chestnut-backed chickadee
<i>Psaltiriparus minimus</i>	Bushtit
<i>Sciurus griseus</i>	Western gray squirrel
<i>Spinus psaltria</i>	Lesser goldfinch
<i>Streptopelia decaocto</i> *	Eurasian collared dove
<i>Thryomanes bewickii</i>	Bewick's wren

*Non-native species, #planted in ornamental areas

Bold indicates special-status species

APPENDIX C

Photo Plate



Appendix C. Photo Plate



Photo 1. Southeasterly view of an old asphalt road onsite that accesses Skye Street, and a concrete stormwater swale along the road.



Photo 2. View of sandbags used to direct road runoff into the swale as part of the interim erosion control efforts.



Photo 3. The concrete-lined swales direct surface runoff down the lower slope seen in the right bottom corner to a culvert and storm drain pipe on the steep slope.



Photo 4. During winter 2022-2023, surface runoff down the road bypassed the drainage structures and eroded the hillside below the road.



Photo 5. Northerly view of the eroded gully below the old road that is becoming revegetated by a mix of non-native and native plants.



Photo 6. Another view of the erosion area showing existing vegetation. Remnant tree trunks that were in the erosion area are visible near the toe of slope on the far right.



Photo 7. Southerly view of the steep slope from the Fiscalini Ranch Preserve showing the erosion scar and surrounding vegetation.



Photo 8. View of soils that accumulated at the base of the slope following the erosion event, and is now becoming revegetated with a mix of native and non-native species.



Photo 9. Southeasterly view meadow area in the middle of the study area. The mid- to upper slopes are a bowl-shaped feature that was graded and maintained to create a park-like setting. While Monterey pine trees are present, the understory is primarily non-native grasses that are regularly mowed.



Photo 10. The old asphalt road terminates on this constructed bench half-way down the slope.



Photo 11. Representative view of concrete swales constructed on the site to direct stormwater runoff from the residential area along Skye Street down to lower bench area and storm drain pipe.



Photo 12. Additional view of concrete swales that direct stormwater from the upper slope to an existing storm drain pipe.



Photo 13. The concrete swales and asphalt curb converge in the eastern part of the bench to direct runoff into a storm drain pipe.



Photo 14. View of the storm drain pipe that carries surface runoff down to the lower slope and floodplain. The new, upsized storm drain pipe would be laid on the ground adjacent to this pipe, and vegetation impacts minimized.



Photo 15. View of the lower slope showing dense vegetation with scattered Monterey pine and coast live oak trees. The storm drain pipe has been overgrown with understory plants.



Photo 16. Northeasterly view of the Santa Rosa Creek floodplain taken from the base of the slope where eroded material was deposited. The study area is off to the right and Santa Rosa Creek is present to the far left.

APPENDIX D

Special-status Biological Resources Summary





Appendix D. Special-status Biological Resources Summary

Common Name	Scientific Name	Fed	CA	CRPR	Ecological Information	Evaluation of Occurrence/ Site Suitability / Distribution
PLANTS/LICHENS/BRYOPHYTES						
Adobe sanicle	<i>Sanicula maritima</i>	—	R	1B.1	Perennial herb; chaparral, coastal prairie, meadows and seeps, valley and foothill grassland; strongly associated with serpentine seeps; 30-240 meters in elevation; blooms February to May.	Not expected. No suitable habitat or soils are present. Species occurs from the northern coast of SLO Co. through the city of SLO (Cerro Romualdo, Laguna Lake, South Hills Open Space and Bishop Peak).
Arroyo de la Cruz lousewort	<i>Pedicularis rigginsiae</i>	—	—	1B.1	Hemiparasitic perennial herb; maritime chaparral on highly weathered ultramafic clay soils; 100-155 meters in elevation; blooms January to May.	Not expected. No suitable habitat or soils are present, and site is slightly outside of the species' restricted distribution. Only recorded in mountainous areas north of Piedras Blancas.
Arroyo de la Cruz manzanita	<i>Arctostaphylos cruzensis</i>	—	—	1B.2	Perennial evergreen shrub; broadleaved upland forest, coastal bluff scrub, closed-cone coniferous forest, chaparral, coastal scrub, and valley and foothill grassland in sandy soils; 60-310 meters in elevation; blooms December to March.	Not expected. Although suitable habitat is present and the site is within the species' range, it is a perennial shrub that would have been seen during the survey. It has a restricted distribution along the Central Coast from Pacific Valley to south of Montana de Oro. The only record in the CNDDDB search is from 1965 and "needs fieldwork."
Betty's dudleya	<i>Dudleya abramsii</i> ssp. <i>bettinae</i>	—	—	1B.2	Perennial herb; chaparral, coastal scrub and valley and foothill grassland on rocky, serpentine soils; 20-180 meters in elevation; blooms May to July.	Not expected. Subspecies is restricted to serpentine outcrops, which are not present onsite. Occurs from near Cayucos to northwest of the city of SLO.



Common Name	Scientific Name	Fed	CA	CRPR	Ecological Information	Evaluation of Occurrence/ Site Suitability / Distribution
Blochman's dudleya	<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>	—	—	1B.1	Perennial herb; coastal bluff scrub, chaparral, coastal scrub, and valley and foothill grassland on rocky, serpentine or clay soils and outcrops; 5 - 450 meters in elevation; blooms April to June.	Not expected. Species is associated with rocky areas or thin layers of clay soils over serpentine rock, which are not present onsite. Subspecies is distributed along the coast from northwestern SLO Co. to Baja CA. Locally it is restricted to areas west of the city of SLO (Camp SLO & Bishop Peak) and the Irish Hills. Nearest record is San Simeon SP.
Bristlecone fir	<i>Abies bracteata</i>	—	—	1B.3	Perennial evergreen tree; broadleaved upland forest, chaparral, lower montane coniferous forest, and riparian woodland on rocky soils; 185-1555 meters in elevation.	Not expected. Evergreen tree that would have been seen during the surveys and no suitable habitat is present. Occurs in the Santa Lucia Range from Big Sur to inland from San Simeon, with a few disjunct records in the SF Bay area.
California seablight	<i>Suaeda californica</i>	E	—	1B.1	Perennial evergreen shrub; coastal salt marshes and swamps; 0-15 meters in elevation; blooms July to October.	Not expected. No suitable habitat is present and the species is restricted to areas along the immediate coast. Species occurs in disjunct locations surrounding the San Francisco Bay, coastal San Luis Obispo Co., Santa Barbara Co. south coast through San Diego and Baja California, and the Channel Islands. Recorded along the shores of Morro Bay and creek mouths in the area north to Villa Cr.



Common Name	Scientific Name	Fed	CA	CRPR	Ecological Information	Evaluation of Occurrence/ Site Suitability / Distribution
Cambria morning-glory	<i>Calystegia subacaulis</i> ssp. <i>episcopalis</i>	—	—	4.2	Perennial rhizomatous herb; chaparral, cismontane woodland, coastal prairie, and valley and foothill grassland usually on clay soils; 30-500 meters in elevation; blooms March to July.	Potential. Not observed during field work, but could occur in open areas on steep slope near erosion feature. Subspecies is found along the north coast of SLO Co. to San Luis Valley and Salinas Valley from Atascadero to Santa Margarita, and south through Arroyo Grande and Nipomo to NW Santa Barbara Co.; scattered disjunct records in the larger Bay Area. Several records are in close proximity.
Chaparral ragwort	<i>Senecio aphanactis</i>	—	—	2B.2	Annual herb; chaparral, cismontane woodland, coastal scrub in drying alkaline flats, serpentine soils and barren slopes; 15-800 meters in elevation; blooms January to April.	Not expected. No suitable habitat or soils are present. It has a relatively wide range in the central and southern CA Coast Range and along the foothills west of the San Joaquin Valley. Locally recorded in coastal hills near Morro Bay inland to West Cuesta Ridge and the La Panza Range, with a disjunct record near Corbit Cyn. Typically found in more mountainous areas. The only record in the query is from 1958, has an imprecise locality, and "needs fieldwork."
Chorro Creek bog thistle	<i>Cirsium fontinale</i> var. <i>obispoense</i>	E	E	1B.2	Perennial herb; chaparral, cismontane woodland, coastal scrub, valley and foothill grassland in seeps and drainages with serpentine; restricted to seeps in serpentine rock outcrops and other mesic areas; 35-385 meters in elevation; blooms February to September.	Not expected. No suitable habitat or soils are present. Variety is endemic to SLO Co. and occurs in the Santa Lucia Range near San Simeon, Chorro Cr., Cuesta Ridge, Reservoir Cyn., South Hills Open Space, Laguna Lake and Irish Hills. Generally occurs in headwater areas with seeps.



Common Name	Scientific Name	Fed	CA	CRPR	Ecological Information	Evaluation of Occurrence/ Site Suitability / Distribution
Compact cobwebby thistle	<i>Cirsium occidentale</i> var. <i>compactum</i>	—	—	1B.2	Perennial herb; chaparral on clay soils, coastal scrub, coastal dunes, coastal prairie and grassland on sea bluff and sea cliff faces; 5-150 meters in elevation; blooms April to July.	Not expected. No suitable habitat or soils are present. It is distributed along the CA coast in disjunct locations from San Francisco Bay to Point Sal and the Channel Islands. In SLO Co., recorded along the north coast, including the Fiscalini Ranch Preserve.
Cone Peak bedstraw	<i>Galium californicum</i> ssp. <i>luciense</i>	—	—	1B.3	Perennial herb; broad-leaved upland forest, chaparral, cismontane woodland lower montane coniferous forest often on rocky soils and sometimes serpentine; 400-1525 meters in elevation; blooms March to September.	Not expected. Although potentially suitable habitat is present, species is found at higher elevations in the Santa Lucia Range. Occurs from the Ventana Wilderness to Ragged Point, and disjunct locations at West Cuesta Ridge and Irish Hills. Only one record from the vicinity at Cambria Pines is from 1940 and "needs fieldwork."
Dwarf goldenstar	<i>Bloomeria humilis</i>	—	R	1B.2	Perennial bulbiferous herb; coastal bluff scrub, chaparral, and foothill & valley grassland; 10-120 meters in elevation; blooms in June.	Unlikely. Species can occur in grassland habitat, but on coastal bluffs, and has a restricted distribution along portion of the North Coast more than 6 miles away. Mainly restricted to bluffs near Arroyo de la Cruz.
Eastwood's larkspur	<i>Delphinium parryi</i> ssp. <i>eastwoodiae</i>	—	—	1B.2	Perennial herb; chaparral and valley and foothill grassland generally in serpentine soils; 75-500 meters in elevation; blooms February to March.	Not expected. No habitat or suitable soils are present and the site is outside of the subspecies' range. It is endemic to SLO Co., occurring from Morro Bay to the foothills surrounding the city of SLO. The only record in the CNDDB search is from 1959 and has an imprecise locality.



Common Name	Scientific Name	Fed	CA	CRPR	Ecological Information	Evaluation of Occurrence/ Site Suitability / Distribution
Gairdner's yampah	<i>Perideridia gairdneri</i> ssp. <i>gairdneri</i>	—	—	4.2	Perennial herb; broadleaved upland forest, chaparral, coastal prairie, valley and foothill grassland, and vernal pools; 0-610 meters in elevation; blooms June to October.	Potential. Not observed during field work, but could occur in open areas on steep slope near erosion feature. Widely distributed throughout the state except for Central Valley. In SLO Co., only occurs along the north coast from Cambria northward. Has been documented on the Fiscalini Ranch Preserve.
Hearsts' ceanothus	<i>Ceanothus hearstiorum</i>	—	R	1B.2	Perennial evergreen shrub; maritime chaparral, coastal prairie and coastal scrub; 75-245 meters in elevation; blooms March to April.	Not expected. No suitable habitat is present and it is a perennial shrub that would have been seen during the survey. Occurs at San Simeon and Piedras Blancas.
Hearsts' manzanita	<i>Arctostaphylos hookeri</i> ssp. <i>hearstiorum</i>	—	E	1B.2	Perennial evergreen shrub; maritime chaparral, coastal prairie, coastal scrub, and valley & foothill grassland on sandy soils; 55-200 meters in elevation; blooms February to April.	Not expected. No suitable habitat or soils are present and it is a perennial shrub that would have been seen during the survey. Occurs along the coast north of San Simeon.
Hickman's onion	<i>Allium hickmanii</i>	—	—	1B.2	Perennial bulbiferous herb; closed-cone coniferous forest, maritime chaparral, coastal prairie, and valley & foothill grassland where it is associated with damp sandy loam soils in vernal swales; 5-200 meters in elevation; blooms March to May.	Unlikely. The Monterey Pine Forest and sandy loam soils onsite are potentially suitable, but no suitable vernal swales with mesic conditions were present. Occurs from south of Marina to west within the Monterey Peninsula, and along the Big Sur Coast from north of Gorda to San Simeon.
Hoover's button-celery	<i>Eryngium aristulatum</i> var. <i>hooveri</i>	—	—	1B.1	Herb that can occur as either an annual or a perennial; vernal pools, seasonally wet grasslands, and roadside ditches; 3-45 meters in elevation; blooms June to August.	Not expected. No suitable habitat is present and the site is outside of the range of the variety. Distributed from the southeastern Bay Area, Salinas Valley, Mustang Ridge east of King City, and near city of SLO. CNDDDB record from "Cambria" is from 1876 and "needs fieldwork".



Common Name	Scientific Name	Fed	CA	CRPR	Ecological Information	Evaluation of Occurrence/ Site Suitability / Distribution
Jones' layia	<i>Layia jonesii</i>	—	—	1B.2	Annual herb; chaparral and valley and foothill grassland on clay or serpentine; 5-400 meters in elevation; blooms March to May.	Not expected. No suitable habitat or soils are present and site is outside of the species' restricted distribution. Endemic to SLO Co. and recorded from vicinity of Cayucos through Morro Bay and surrounding the city of SLO.
Kellogg's horkelia	<i>Horkelia cuneata</i> var. <i>sericea</i>	—	—	1B.1	Perennial herb; openings in coniferous forest, maritime chaparral, coastal dunes and coastal scrub on sandy or gravelly soils; 10-200 meters in elevation; blooms April to September.	Not expected. No suitable habitat or soils are present. Species is associated with old dunes and coastal sand hills. It has a wide range from Point Reyes to Point Conception in coastal areas. In SLO Co., occurs in coastal sand dunes from Morro Bay southward. The only records in the CNDDDB search "need fieldwork."
Maritime ceanothus	<i>Ceanothus maritimus</i>	—	R	1B.2	Perennial evergreen shrub; coastal bluff scrub, maritime chaparral, and valley & foothill grassland on clay soil; 10-150 meters in elevation; blooms January to April.	Not expected. No suitable habitat is present and it is a perennial shrub that would have been seen during the survey. Species is associated with serpentine, which is not present onsite. Restricted to near Piedras Blancas.
Mesa horkelia	<i>Horkelia cuneata</i> var. <i>puberula</i>	—	—	1B.1	Perennial herb; chaparral, cismontane woodland, and coastal scrub on sandy or gravelly soils; 70- 810 meters in elevation; blooms February to September.	Not expected. No suitable habitat or soils are present. Wide distribution in coastal areas and inland from central SLO Co. to northern San Diego Co. Coastal mountains from Morro Bay to Pismo Beach and inland to Lopez Lake and at Atascadero. The only record nearby is from 1959 and "needs fieldwork." Perennial species that would have been seen during the survey.



Common Name	Scientific Name	Fed	CA	CRPR	Ecological Information	Evaluation of Occurrence/ Site Suitability / Distribution
Michael's rein orchid	<i>Piperia michaelii</i>	—	—	4.2	Perennial herb; coastal bluff scrub, closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub and lower montane coniferous forest; 3-915 meters in elevation; blooms April to August.	Potential. Suitable habitat is present in the Monterey Pine Forest on the slope with limited potential due to steep slope and dense vegetation. Widely distributed in the state, along the coast from Pt. Reyes to Long Beach, inland to Walnut Cr., scattered locations in the western Sierra Nevada foothills and NW CA. In SLO Co., coastal hills from Cambria to Pismo Beach and inland between Lake Nacimiento south to Santa Margarita. Record near Cambria is from 1930.
Monterey pine	<i>Pinus radiata</i>	—	—	1B.1	Perennial evergreen tree; closed-cone coniferous forest and cismontane woodland; 25-185 meters in elevation.	Present. Mature trees are present throughout the study area. Site is within a mapped occurrence in the CNDDDB. Native range is from only three areas in coastal central CA, with the southern-most near Cambria, and widely planted.
Most beautiful jewelflower	<i>Streptanthus glandulosus</i> ssp. <i>glandulosus</i> (= <i>S. albidus</i> ssp. <i>peramoenus</i>)	—	—	1B.2	Annual herb; chaparral, cismontane woodland, and valley and foothill grassland on open hillsides with serpentine rock; 94-1000 meters in elevation; blooms March to October.	Not expected. No suitable habitat or soils are present, and site is outside of the subspecies' restricted distribution. Subspecies occurs in the Santa Lucia Range from San Carpoforo Cr. to foothills around SLO and Adelaida. Record from "east of Cambria" is from 1929 and has an imprecise locality, "needing fieldwork."
Mouse-gray dudleya	<i>Dudleya abramsii</i> ssp. <i>murina</i>	—	—	1B.3	Perennial leaf succulent; chaparral, cismontane woodland and valley and foothill grassland on serpentine soils; 50-525 meters in elevation; blooms May to June.	Not expected. Subspecies is restricted to serpentine outcrops, which are not present onsite. Endemic to SLO Co. and its distribution is centered in the foothills around the city of SLO, Irish Hills, Laguna Lake, and one disjunct record at Rinconada Mine. Nearest records are Cayucos.



Common Name	Scientific Name	Fed	CA	CRPR	Ecological Information	Evaluation of Occurrence/ Site Suitability / Distribution
Ocean bluff milk-vetch	<i>Astragalus nuttallii</i> var. <i>nuttallii</i>	—	—	4.2	Perennial herb; coastal bluff scrub and coastal dunes; 3-120 meters in elevation; blooms January to November.	Not expected. No suitable ocean bluffs or hollows among dunes are present. Coastal areas from Mendocino to Pt. Conception. Recorded West Fiscalini Preserve.
Perennial goldfields	<i>Lasthenia californica</i> ssp. <i>macrantha</i>	—	—	1B.2	Perennial herb; coastal bluff scrub, coastal dunes and coastal scrub; 5-520 meters in elevation; blooms all year but mostly from May to August.	Not expected. No suitable habitat is present. Subspecies occurs along the entire coast of CA. Within SLO Co., it is restricted to the San Simeon area. Record from Cambria is from 1957 and has an imprecise locality.
Saint's daisy	<i>Erigeron sanctarum</i>	—	—	4.2	Perennial rhizomatous herb; chaparral, cismontane woodland and coastal scrub; 75-350 meters in elevation; blooms March to July.	Potential. Monterey Pine Forest on steep slope is potentially suitable and surveys were not able to fully cover this zone due to steep topography and dense vegetation. Recorded along the coast north of Cambria and at Montana de Oro with disjunct record at Corbit Cyn. Has been recorded at Fiscalini Ranch Preserve within or near Monterey Pine Forest habitat.
San Luis mariposa-lily	<i>Calochortus obispoensis</i>	—	—	1B.2	Bulbiferous, perennial herb; chaparral, coastal scrub and valley and foothill grassland on sandstone, serpentine and/or sandy soils; 75-730 meters in elevation; blooms May to July.	Not expected. No suitable habitat is present and has not been recorded in coastal areas. Endemic in SLO Co. Distribution is inland around the city of San Luis Obispo and extends to the hills north of Arroyo Grande. Nearest record is from the Santa Lucia Range north of Cambria, but is disjunct from its known range.



Common Name	Scientific Name	Fed	CA	CRPR	Ecological Information	Evaluation of Occurrence/ Site Suitability / Distribution
San Luis Obispo owl's-clover	<i>Castilleja densiflora</i> ssp. <i>obispoensis</i>	—	—	1B.2	Annual herb; meadows, seeps, and valley and foothill grassland sometimes on serpentine; 10-400 meters in elevation; blooms March to May.	Unlikely. Grassland openings in the forest understory were searched during surveys and this species was not observed. Steep slope where erosion occurred is densely vegetated and is not suitable for this species. It is endemic to the county occurring throughout the western half from San Carpoforo Cr. south to San Luis Valley, Salinas Valley and foothills northeast of Grover Beach. Recorded at western Fiscalini Ranch Preserve and several other locations in nearby grasslands.
San Luis Obispo sedge	<i>Carex obispoensis</i>	—	—	1B.2	Perennial rhizomatous grass; seeps, springs, streamsides in chaparral or coastal scrub, wetlands, and mesic grasslands generally on serpentine; 10-820 meters in elevation; blooms April to June.	Not expected. Strongly associated with serpentine, which is not present onsite. Occurs in the Santa Lucia Range from Big Sur to Cuesta Ridge, La Panza Range east to Rinconada Mine and Reservoir Cyn., and Irish Hills.
San Simeon baccharis	<i>Baccharis plummerae</i> ssp. <i>glabrata</i>	—	—	1B.2	Perennial deciduous shrub; coastal scrub; 50-480 meters in elevation; blooms in June.	Not expected. No suitable habitat is onsite, and the only record nearby is from 1949 and has a vague locality. Subspecies is restricted to a small area surrounding the mouth of Arroyo de la Cruz. Perennial shrub that would have been seen during the survey.
Santa Lucia bush-mallow	<i>Malacothamnus palmeri</i>	—	—	1B.2	Perennial deciduous shrub; chaparral on rocky soils and slopes, but occasionally extending down canyons to near sea level; 3-670 meters in elevation; blooms May to July.	Not expected. No chaparral habitat is present and this shrub would have been seen during the survey. Occurs in the Santa Lucia Range from Carmel to Cerro Alto in SLO Co. San Simeon Cr. records "need fieldwork" and/or have imprecise localities.



Common Name	Scientific Name	Fed	CA	CRPR	Ecological Information	Evaluation of Occurrence/ Site Suitability / Distribution
Southern curly-leaved monardella	<i>Monardella sinuata</i> ssp. <i>sinuata</i>	—	—	1B.2	Annual herb; chaparral, cismontane woodland, coastal dunes, and openings in coastal scrub on sandy soils; elevations below 300 meters; blooms May to September.	Not expected. No suitable habitat or soils are present and site is outside of the subspecies' distribution. Restricted to active and old dunes southeast of Morro Bay, Oceano Dunes and the Orcutt-Vandenberg Village area east to Los Olivos. San Simeon record is considered extirpated.
Southwestern spiny rush	<i>Juncus acutus</i> ssp. <i>leopoldii</i>	—	—	4.2	Perennial rhizomatous herb; mesic areas in coastal dunes, meadows and seeps including on alkaline soils, and coastal salt marshes and swamps; 3-900 meters in elevation; blooms March to June.	Not expected. No suitable habitat is present. Species occurs along the coast from northwestern SLO Co. to Baja CA and inland to Sierra Madre Mtns., Santa Ynez Mts., mountains of Ventura and LA Cos., desert mountains of So Cal, and a disjunct populations north of San Francisco Bay. It is recorded at Pico Cr. mouth, West Fiscalini Preserve, Morro Bay and Oceano.
Twisted horsehair lichen	<i>Sulcaria spiralifera</i>	—	—	1B.2	Epiphytic fruticose lichen; coniferous forest immediately along coast on conifers, and in the Central Coast also in maritime chaparral and coastal oak woodland on coast live oak, ceanothus and chamise; 0-30 meters in elevation.	Unlikely. Only <i>Ramalina</i> lichen observed onsite. Recorded at San Simeon Cr., Los Osos, and Montana de Oro primarily in coast oak woodland and chaparral habitats which are not present in study area.
Woodland woollythreads	<i>Monolopia gracilens</i>	—	—	1B.2	Annual herb; openings of broad-leaved upland forest, chaparral, cismontane woodland, north coast coniferous forest, and valley and foothill grassland on sandy to rocky soils sometimes on serpentine; 100 to 1,200 meters in elevation; blooms February to July.	Unlikely. Although woodland habitat is present, the only records in the vicinity are from 1940 and 1949 and have imprecise locality info "needing fieldwork." Species occurs east and south of the San Francisco Bay and reported from a few occurrences northwestern San Luis Obispo Co. but there are no recent records.

*E = Endangered; T = Threatened; R = Rare; '—' = no status; CRPR: Rank 1A - Presumed extirpated in California and either rare or extinct elsewhere; Rank 1B – Rare, threatened or endangered in California and elsewhere; Rank 2A – Presumed extirpated in California, but more common elsewhere; Rank 2B – Rare, threatened, or endangered in California, but more common elsewhere; Rank 3 - Plants needing more information, a review list; Rank 4 – Limited distribution, a watch list. Sources: California Natural Diversity Database (California Department of Fish and Wildlife 2024a); Special Vascular Plants, Bryophytes, and Lichens List (California Department of Fish and Wildlife 2025c); Inventory of Rare and Endangered Plants of California (California Native Plant Society 2025b); Information on Wild California Plants for Conservation, Education, and Appreciation (Calflora 2025); Jepson eFlora (Jepson Flora Project 2025); The Vascular Plants of San Luis Obispo County, California (Keil and Hoover 2022).



Common Name	Scientific Name	Fed	CA	CDFW	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
ANIMALS						
INVERTEBRATES						
Monarch - California overwintering population 1	<i>Danaus plexippus plexippus</i>	PT	—	—	Adults feed on the nectar of various blooming plants. During breeding can be found in fields, pastures, residential areas, grassland and scrub. Eggs are laid on and caterpillars feed on milkweed. Overwinters in wind-protected tree groves of eucalyptus, Monterey pine and cypress along the coast.	Potential. The Monterey Pine Forest onsite was surveyed in December 2024 and 2025 and no signs of overwintering were observed. Individuals could occur periodically while foraging. There are several documented overwintering sites nearby.
Obscure bumble bee	<i>Bombus caliginosus</i>	—	—	—	Forages on ceanothus, coyote brush, manzanita, thistles, sweet peas, eucalyptus, lupines, willows, clover and blackberry. Queens emerge in late-January and build nests underground, on the ground or in trees. Workers are produced until males emerge in April. After mating, the queens build up fat stores and go into hibernation underground in late-October.	Potential. Potential host plants are in the study area; therefore, individuals could forage or nest onsite. Has been recorded from the vicinity of Cambria, but little is known about this species and the most recent record is from 1973.
FISH						
Steelhead - south-central California coast DPS	<i>Oncorhynchus mykiss irideus</i> pop. 9	T	—	—	Adults spawn in freshwater streams with clear, well-oxygenated, cool water and clean gravel substrate. Also require instream cover (branches, logs) and streamside vegetation. Juveniles rear in freshwater reaches or lagoons before going to the ocean to mature, and then return to freshwater to reproduce.	Not expected. No streams are onsite. Occurs in Santa Rosa Cr. and other coastal streams in the vicinity.



Common Name	Scientific Name	Fed	CA	CDFW	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
Tidewater goby	<i>Eucyclogobius newberryi</i>	E	—	SSC	Small, euryhaline, benthic fish that inhabits coastal lagoons, estuaries, stream mouths, and backwater marshes, rarely in open ocean. Usually in brackish lower reaches but can occur up to 7 miles upstream from the ocean. Requires shallow water with little to no flow and fine substrate.	Not expected. No streams are onsite. Occurs in Santa Rosa Cr. and other coastal streams in the vicinity.
AMPHIBIANS/REPTILES						
California (=Coast Range) newt	<i>Taricha torosa</i>	—	—	SSC (Monterey Co. south)	Primarily terrestrial in forests, oak woodlands, chaparral, and rolling grassland. Breeds in ponds, reservoirs and pools of clear streams with rocky substrates and cascades.	Potential. Known to occur in upstream perennial reaches of Santa Rosa Cr. Has not been found in the lower reach during past focused surveys, but individuals could be washed downstream and there is a low probability they occupy forest habitat onsite. Recorded in mid- to -upper reaches of many other streams in the vicinity.
California red-legged frog	<i>Rana draytonii</i>	T	—	SSC	Forages and breeds in streams with deep slow-moving pools, stock ponds, reservoirs, springs, lagoons, and marshes; usually with emergent or riparian vegetation but also found at sites lacking vegetation. Uses riparian and various upland habitats in winter and for dispersal. Can move through upland habitat max. 1.7 mi. between aquatic sites, and usually remains within 1.0 mi. of water.	Potential. Could use the slope where there is shrubby understory for upland aestivation habitat and may disperse through the site, however this is unlikely due to the higher elevations onsite. Has been recorded in lower Santa Rosa Cr. and many other locations in the vicinity, and could potentially occur in the lower densely vegetated areas during winter months.



Common Name	Scientific Name	Fed	CA	CDFW	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
Foothill yellow-legged frog - south coast DPS	<i>Rana boylei</i> population 6	E	E	—	Rocky streams and rivers with open sunny banks, surrounded by forests, chaparral, riparian and grassland. Sometimes found in isolated pools, backwaters, and spring-fed pools. Reproduction is exclusively in streams and rivers. Usually found near water and both diurnal and nocturnal.	Not expected. This species has been extirpated from south of Little Pico Cr. since 1975-1978, and the closest extant populations are from Ragged Point northward. Historical records are from Little Pico Cr. in 1999 and Santa Rosa Cr. near Perry Cr. last seen in 1948.
Northern California legless lizard	<i>Anniella pulchra</i>	—	—	SSC	Beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, oak woodland, and stream terraces with riparian vegetation. Fossorial species requires moist, loose soils or leaf litter with plant cover or surface objects (rocks, boards, logs, etc.). Can occur in residential areas.	Unlikely. Although the Monterey Pine Forest and sandy loam soils onsite could be suitable, there were no records in the CNDDB search and Thomson et al. (2016) do not show any historical records along the coast from Monterey Bay to Morro Bay.
San Simeon slender salamander	<i>Batrachoseps incognitus</i>	—	—	—	Forests with yellow pine, laurel, and sycamore and oak woodland. Occurs in the Santa Lucia Mtns. from SW Monterey Co. to NW SLO Co. Sea level to 1000 m.	Not expected. No suitable habitat is present and site is outside of the species' restricted distribution. Reaches its southern extent in coastal areas at San Simeon Point.
Southwestern pond turtle	<i>Actinemys pallida</i>	PT	—	SSC	Ponds, lakes, rivers, streams, marshes, brackish lagoons, and irrigation ditches with a mosaic of vegetation and open areas for basking. Uses upland areas within 0.3 mi. from aquatic sites in winter, including woodland, forest, grassland, coastal scrub, chaparral, and riparian. Nesting is in open, sparse grassland with clay soils, within 0.1 mi. of aquatic sites.	Potential. Could use the lower slope of the Monterey Pine Forest for winter aestivation. Documented from Santa Rosa Cr. within the species' movement distance and relatively common in the local area. Would not nest onsite, but possibly be present in the winter months.



Common Name	Scientific Name	Fed	CA	CDFW	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
Two-striped gartersnake	<i>Thamnophis hammondi</i>	—	—	SSC	Pools, creeks, and stock ponds in oak woodland, chaparral, scrub, and coniferous forest. Primarily aquatic, feeding on tadpoles, newt larvae, small frogs and toads, fish, earthworms and fish eggs. Occurs in upland habitats in winter in rodent burrows. Active from January to November, depending on weather.	Not expected. Monterey Pine Forest onsite is not suitable upland habitat and site is beyond the distance the snakes usually occur from water. Occurs in coastal counties from the Monterey Bay to Mexico border. Recorded in upper Santa Rosa Cr. but not found in the lower reach during focused surveys in 1991.
BIRDS						
Allen's hummingbird	<i>Selasphorus sasin</i>	BCC	—	—	Coastal scrub, valley foothill hardwood, riparian, pine-cypress, eucalyptus, redwood and urban habitats. Breeds in sparse to open woodlands and feeds on nectar. Winters in Mexico and migrates to CA coast to breed.	Potential. Could feed and nest in Monterey Pine Forest habitat onsite. Recorded in eBird at many locations surrounding the site.
American peregrine falcon	<i>Falco peregrinus anatum</i>	—	—	— (nesting)	Various open habitats, coastal areas, inland wetlands, and desert mountains. Feeds mainly on birds, but also eats bats, fish, rodents and insects. Nests on high cliffs, dunes or mounds near water from coastal areas north of Santa Barbara. Also uses buildings, cavities in trees or snags or old raptor nests. Occurs in this area year-round/Occurs in the Central Valley in winter, and migrants occur along the coast.	Potential. Individuals could perch on the pine trees while foraging over the adjacent floodplain and occur as a transient. No cliffs are present for nesting. Has been recorded in eBird surrounding the site.
Bald eagle	<i>Haliaeetus leucocephalus</i>	—	E	FP (nesting & wintering)	Open areas near water where they mainly feed on fish, and may also eat birds, amphibians, reptiles, small mammals, and crabs. Nests are in large mature trees such as ponderosa pine or occasionally on cliffs or the ground, often within 1 mile of a large water source.	Potential. Could perch in the Monterey Pine Forest and use the area for wintering, but would not be expected to nest due to the urban development and human present. Numerous observations in the vicinity in eBird.



Common Name	Scientific Name	Fed	CA	CDFW	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
Burrowing owl (= Western burrowing owl)	<i>Athene cunicularia</i> (= <i>A. c. hypugaea</i>)	BCC	C	SSC (burrow sites & some wintering sites)	Open treeless areas with low sparse vegetation such as grasslands, deserts, pastures, agricultural fields, airports, and artificial embankments where they prey on small vertebrates and various invertebrates. Nests in burrows created by other animals with nearby lookouts such as fence posts or shrubs. Formerly occurred year-round in this area, but now restricted to winter.	Not expected. Onsite habitat is unsuitable. There were no records in the CNDDDB but has been recorded in eBird at the western Fiscalini Ranch Preserve, including recent observations. Could fly over the site while moving around the area.
California brown pelican	<i>Pelecanus occidentalis californicus</i>	—	—	— (nesting colonies & communal roosts)	Estuarine, marine subtidal, and marine pelagic waters. Feeds on fish caught by diving, as well as crustaceans, carrion and its own young. Rests on water, inaccessible rocks, mudflats, sandy beaches, wharfs and jetties. Present in this area throughout the year, but does not breed on the mainland coast and more common May to August. Breeds on the Channel Islands or migrates to Mexico.	Unlikely. Although there is no aquatic habitat onsite, there are numerous observations in upland habitats along the coast in the vicinity. Low probability to occur as a transient.
California condor	<i>Gymnogyps californianus</i>	E	E	FP	Forages in vast open grassland, savannah and chaparral in mountain ranges within 100 miles of nest sites. Nests in deep canyons with rock walls.	Unlikely. Low probability to perch on Monterey Pine trees. A juvenile has been documented in eBird from Santa Rosa Cr. Rd. just east of Cambria in 2021 that perched on a dead Monterey pine and two adults in 2018. Numerous recent observations from San Simeon Cr. area. Could fly over the site while moving around the area. Not expected to forage onsite.



Common Name	Scientific Name	Fed	CA	CDFW	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
California gull	<i>Larus californicus</i>	BCC	—	WL (nesting colonies)	Sandy beaches, mudflats, rocky intertidal, pelagic areas of marine and estuarine habitats, fresh and saline emergent wetlands, alkali and freshwater lakes, rivers, agricultural areas, pastures, landfills, and open lawns in urban areas. Omnivore on living organisms, and feeds on garbage and carrion. Nesting is on islands in alkali or freshwater lakes, and salt ponds in undisturbed areas. Occurs along the coast within the county year-round but does not breed in this area.	Potential. Could forage or perch onsite but there is no suitable nesting habitat and they do not breed in this area. Has been documented in eBird throughout the surrounding area.
California horned lark	<i>Eremophila alpestris actia</i>	—	—	WL	Areas with sparse vegetation or bare ground in prairies, deserts, tundra, beaches, dunes, airports, plowed fields and heavily grazed pastures where they eat seeds and insects. Nesting is on bare ground. Occurs year-round in this area.	Not expected. No suitable open habitat is present and they are rarely reported from this area.
Cassin's auklet	<i>Ptychoramphus aleuticus</i>	BCC	—	SSC	Marine pelagic waters where they feed on krill. Common in spring and summer. Breeds on islands.	Not expected. Site is located away from the immediate coast. Species is recorded in eBird along the north coast and offshore waters, and there is one observation from west Fiscalini Ranch Preserve.
Common loon	<i>Gavia immer</i>	—	—	SSC (nesting)	In winter, occurs along the coast nearshore and in bays and estuaries. Some individuals winter inland on large reservoirs and slow-moving rivers. Prey is mostly fish. Occurs in this area during the non-breeding season and during migration. Breeds in Canada and Alaska near clear lakes.	Not expected. No suitable habitat is present and does not nest in this region. Could flyover the site. Frequently recorded at the mouth of Santa Rosa Cr.



Common Name	Scientific Name	Fed	CA	CDFW	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
Cooper's hawk	<i>Accipiter cooperii</i>	—	—	WL (nesting)	Mature and open woodlands including oak forest, conifers and riparian; may also be found in suburban areas with tall trees. Feeds on birds, small mammals, reptiles and amphibians. Nesting is in dense woodlands. Occurs in this area year-round.	Potential. The Monterey Pine Forest is suitable for foraging and nesting. They have been recorded in eBird at numerous locations surrounding the site.
Double-crested cormorant	<i>Phalacrocorax auritus</i>	—	—	WL (nesting colony)	Yearlong resident along the entire California coast in freshwater, saltwater and estuarine waters, and inland lakes, reservoirs and salt ponds. Feeds mainly on fish by diving and pursuing prey underwater; also crustaceans and amphibians. Daytime rest sites and night time roosts are on offshore rocks, islands, steep cliffs, snags, wharfs, jetties, and utility lines. Nests are on wide rock ledges on cliffs or rugged slopes, and tall trees.	Not expected. No aquatic habitat is onsite. There are numerous observations of this species from along the coast and lagoons in the vicinity. Could fly over while moving around the area.
Elegant tern	<i>Thalasseus elegans</i>	BCC	—	WL (nesting colony)	Feeds in shallow ocean waters beyond the breaker zone, protected bays and lagoons. Dives into the water to capture fish. Congregates on beach and tidal flats when not feeding. Does not breed in this area.	Not expected. No aquatic habitat is onsite. There are numerous observations of this species in eBird along the coast and creek mouths nearby. Could fly over the site while moving around the area.
Ferruginous hawk	<i>Buteo regalis</i>	BCC	—	WL (wintering)	Open country such as grasslands, sagebrush, saltbush shrubland, and edges of pinyon-juniper forest where they prey on small mammals. Nests on lone trees, cliffs, utility poles, and shrubs from ground-level to 65-feet high. Occurs in this area during winter.	Potential. Could perch on the Monterey pine trees while foraging in the adjacent floodplain, but does not nest in this area. Could use the site for wintering. Has been recorded at several locations adjacent to the site in eBird.



Common Name	Scientific Name	Fed	CA	CDFW	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
Golden eagle	<i>Aquila chrysaetos</i>	BCC	—	FP, WL (nesting & wintering)	Uncommon resident of mountainous and valley-foothill areas. Foraging typically occurs in open terrain where they prey on small mammals. Nesting usually occurs on cliff ledges, and less commonly in large trees or on structures such as electrical towers. Occurs in this area year-round.	Potential. Could perch and forage in the Monterey Pine Forest and use the area for wintering. Unlikely to nest onsite due to high level of human presence in the area. No large stick nests observed during surveys. Numerous observations in the vicinity in eBird and at Fiscalini Ranch Preserve.
Grasshopper sparrow	<i>Ammodramus savannarum</i>	—	—	SSC (nesting)	Grasslands, prairies, hayfields, and open pastures with little scrub cover and some bare ground where they prey on grasshoppers and other invertebrates. Nests on the ground at the base of clumps of grass within a large patch of tall grass. Occurs in this area during breeding season.	Unlikely. Does not occur in forested habitats. Could use adjacent floodplain area and may rarely occur in understory grassland onsite, but there are only a few records in the local area in eBird and one CNDDDB record in the vicinity. Would not nest onsite.
Great blue heron	<i>Ardea herodias</i>	—	—	— (nesting colony)	Freshwater and saltwater marshes, also foraging in grasslands and agricultural fields. Nesting colonies are near lakes, ponds and wetlands bordered by forests. Nests are placed mainly in trees, but may also nest on the ground, in bushes or artificial structures. Occurs year-round in this area.	Unlikely. No suitable habitat is present. Could forage in the adjacent floodplain and very rarely could occur in the grassland understory onsite. There are numerous records in eBird surrounding the site.
Great egret	<i>Ardea alba</i>	—	—	— (nesting colony)	Forages in marshes, swamps, streams, rivers, ponds, lakes, lagoons, tidal flats, canals, ditches, flooded fields, and sometimes in upland where they prey on fish, amphibians, reptiles, crustaceans, and invertebrates. Roosts communally in trees. Nesting colonies are on lakes, ponds, marshes, and estuaries, but does not nest in this area. Occurs in this area during non-breeding season.	Unlikely. No suitable habitat is present. Could forage in the adjacent floodplain and very rarely could occur in the grassland understory onsite. There are numerous records in eBird surrounding the site.



Common Name	Scientific Name	Fed	CA	CDFW	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
Loggerhead shrike	<i>Lanius ludovicianus</i>	—	—	SSC (nesting)	Open country with low vegetation and well-spaced shrubs or trees such as coastal scrub, grasslands, agricultural fields, pastures, riparian areas, desert scrub, savannas, prairies, golf courses, and along roadsides where they prey on insects, amphibians, reptiles and small mammals. Nests in trees, shrubs, or brush piles. Occurs in this area year-round.	Potential. Suitable foraging and nesting habitat is present onsite. There are observations in eBird from near the study area.
Merlin	<i>Falco columbarius</i>	—	—	WL (wintering)	Coastlines, open grasslands, savannas, woodlands, lakes, wetlands, and montane conifer forests where they prey on small birds, small mammals and insects. Nests in existing corvid or hawk nests but does not nest in California. Occurs in this area during winter.	Potential. Suitable foraging habitat is present in the study area but does not nest in this region. Could winter onsite. There are several observations in eBird from near the study area, including the Fiscalini Ranch Preserve.
Northern harrier	<i>Circus cyaneus</i>	—	—	SSC (nesting)	Large areas of wetlands and grasslands with low vegetation where they prey on small mammals, amphibians, reptiles and birds. Nesting is in marshes, grazed meadows, and desert shrubland where they nest on the ground in a dense clump of vegetation such as willows, grasses, sedge, bulrushes or cattails. Occurs year-round in this area.	Potential. May perch on the Monterey pine trees while foraging in the adjacent floodplain. There is no habitat for nesting. Numerous observations in eBird from the surrounding area.
Nuttall's woodpecker	<i>Dryobates nuttallii</i>	BCC	—	—	Riparian deciduous and oak woodland. Excavates nesting cavities in dead willows, sycamores, cottonwoods, and alders. Occurs year-round in this region.	Potential. The riparian habitat along Santa Rosa Cr. is suitable and could periodically occur onsite while foraging or moving around the area. There is a high number of observations near the site.



Common Name	Scientific Name	Fed	CA	CDFW	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
Oak titmouse	<i>Baeolophus inornatus</i>	BCC	—	—	Montane hardwood-conifer, montane hardwood, oak woodland (blue, valley and coast live), and montane and valley foothill riparian. Ventures into residential areas. Nests are in cavities often near water. Eats insects, spiders, berries, acorns and seeds. Yearlong resident.	Potential. Suitable foraging habitat and nesting is present onsite. There are numerous records in the vicinity including very close to the site.
Osprey	<i>Pandion haliaetus</i>	—	—	WL (nesting)	Rivers, lakes, reservoirs, intertidal areas, lagoons, bays, estuaries and marshes with fish, which is their primary prey. Other food items include birds, snakes, voles, squirrels, and salamanders. Nests are in trees, snags, cliffs, or artificial platforms. Does not breed in this area, but the Central Coast is within its year-round range.	Potential. Could forage onsite, perch on the trees, and occur as a transient while moving around the area. There are several observations in eBird from very close to the study area. Does not nest in this area.
Prairie falcon	<i>Falco mexicanus</i>	BCC	—	WL (nesting)	Grasslands, desert shrubland, tundra, coastal scrub, feedlots, and agricultural fields where they feed on small mammals, insects and birds. Nests on high cliff ledges and steep bluffs overlooking open areas. Occurs year-round in inland areas of this region, rarely on the coast.	Unlikely. Species is rare on the coast and no suitable habitat is present. No cliffs for nesting are in the area. Only a few records in eBird. Could rarely fly over.
Rhinoceros auklet	<i>Cerorhinca monocerata</i>	—	—	WL	Marine pelagic habitat where they feed on fish, crustaceans and cephalopods. Rests on the water. Found in the Central Coast in winter.	Not expected. Site is located away from immediate coast. Recorded in eBird along the north coast, and one observation from Santa Rosa Creek mouth. Could fly over the site while moving around the area and during migration.



Common Name	Scientific Name	Fed	CA	CDFW	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
Rufous hummingbird	<i>Selasphorus rufus</i>	BCC	—	— (nesting)	Riparian areas, open woodlands, scrub, chaparral, mountain meadows, gardens and orchards. Feeds on nectar of flowering plants, insects, spiders and tree sap. Breeds in coniferous forests north of California; does nest in this area and occurs during migration.	Potential. Could forage onsite during migration. Does not nest in this area. Individuals have been recorded nearby in eBird.
Sharp-shinned hawk	<i>Accipiter striatus</i>	—	—	WL (nesting)	Forages along the edges of dense mixed woodlands, brushy pastures and shorelines where they prey on birds. Roosts in tall forests. Nests are in dense coniferous and riparian forests in the Coast, Transverse and Peninsular ranges, northwestern CA, Cascades and Sierra Nevada; however, breeding in the state is uncommon. Some individuals migrate to CA and mountain populations migrate to lower elevations for the winter.	Potential. Could forage or roost in the Monterey Pine Forest onsite. Although there is suitable nesting habitat, nesting is uncommon in this region. Has been recorded near the site in eBird.
Short-eared owl	<i>Asio flammeus</i>	—	—	SSC (nesting)	Open areas with low vegetation such as grasslands, savannah, marshes, dunes and agricultural areas. Wintering habitat includes stubble fields, weedy fields, dumps, gravel pits, rock quarries and shrub thickets. Prey on small mammals and birds. Nests are on the ground in dry areas with low vegetation, but they do not nest in this area. Occurs during the winter in this area.	Unlikely. Onsite habitat is not suitable but could rarely occur as a transient while moving around the area. Has been recorded at Fiscalini Ranch Preserve and is rarely recorded along the coast from San Simeon to Estero Ba, and more commonly at Morro Bay and Carrizo Plain. Does not nest in this area.
Snowy egret	<i>Egretta thula</i>	—	—	— (nesting colony)	Lagoons, freshwater wetlands, ponds, temporary pools, and wet fields where they prey on aquatic animals and insects. Nesting colonies are in dense vegetation of islands and marshes. Occurs in this area year-round.	Unlikely. No suitable habitat is present. Could forage in the adjacent floodplain and very rarely could occur in the grassland understory onsite. There are several records in eBird surrounding the site.



Common Name	Scientific Name	Fed	CA	CDFW	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
Tricolored blackbird	<i>Agelaius tricolor</i>	BCC	T	SSC (nesting colony)	Forages in a variety of habitats including pastures, agricultural fields, rice fields, and feedlots. Nests colonially in freshwater marshes with tules or cattails, or in other dense thickets of willow, thistle, blackberry, or wild rose in close proximity to open water. Occurs year-round in this area.	Not expected. No suitable habitat is on or near the site. There are only a few records in eBird from the surrounding area.
White-tailed kite	<i>Elanus leucurus</i>	—	—	FP (nesting)	Savannas, open woodlands (oak or pine), riparian forest, marshes, desert grasslands, and fields where they prey on small mammals, birds, lizards, and insects. Nests and roosts in the edges of forests or in tall isolated trees. Occurs in this area year-round.	Potential. Could perch, roost or nest onsite and forage in the adjacent floodplain. Has been recorded in eBird at several locations adjacent to the site, including the Fiscalini Ranch Preserve.
Wrentit	<i>Chamaea fasciata</i>	BCC	—	—	Chaparral, coastal scrub and shrub understory of coniferous habitats. Nests in dense shrubs. Occurs in western CA year-round.	Potential. Could forage or nest onsite. There are numerous records in eBird from close proximity to the site.
Yellow-billed magpie	<i>Pica nutalli</i>	BCC	—	— (nesting & communal roosts)	Permanent residents of open oak woodland and savannah, riparian, valley hardwood-conifer, residential and agricultural areas, pastures and orchards. Feed on the ground on insects, invertebrates, trash, carrion, acorns, fruit, grain, nestlings, eggs, earthworms, ticks and live rodents. Nests and roosts in small colonies high in large trees. Occurs year-round in this area.	Potential. Could rarely occur onsite as a transient due to marginal habitat. There are numerous records in eBird along the Santa Rosa Cr. corridor and a few from residential areas.
Yellow warbler	<i>Setophaga petechia</i>	—	—	SSC	Wetland and riparian habitats with willows, cottonwoods, bay, maple, sycamores and alders where they eat insects. Also uses gardens, orchards, residential areas and roadside thickets. Nesting is in shrubs or small trees. Occurs year-round in this area, although is rare in winter.	Potential. Could occur periodically while foraging or moving around the area. Slight chance to nest in shrubby areas on the slope. Has been recorded in eBird throughout the area, particularly the Santa Rosa Cr. lagoon.



Common Name	Scientific Name	Fed	CA	CDFW	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
MAMMALS						
American badger	<i>Taxidea taxus</i>	—	—	SSC	Open grasslands, fields, scrubland edges and woodland habitats. They burrow into dry loose soils for shelter and feed on a variety of small mammals such as California ground squirrel and pocket gopher. Young are born in dens in March and April.	Unlikely. Although the understory of the forest habitat could be suitable, the site is mostly surrounded by residential development that would be a barrier to movement and there were no records in the CNDDDB search. Has been reported from the Fiscalini Ranch Preserve. No dens or potential prey were seen during the surveys.
Fringed myotis	<i>Myotis thysanodes</i>	—	—	—	High elevation coniferous forest, oak woodland, mixed deciduous forest and pinyon-juniper woodland. Roosts in caves, buildings, mines and cavities of large trees. Their year-round range is all of California except the Central Valley and deserts.	Potential. Monterey Pine Forest onsite is suitable for foraging and roosting. This species has been recorded from the San Simeon and their year-round range includes all of San Luis Obispo County.
Hoary bat	<i>Lasiurus cinereus</i>	—	—	—	All types of forests and woodland with medium- to large-sized trees and dense foliage. Roosts in dense foliage of large trees. Winters along the coast and in southern CA or hibernates in cold climates. Females move inland and to northern CA during the summer and have maternity roosts in dense foliage while the males remain along the coast.	Potential. Suitable forest habitat for foraging and roosting is present. There were no records in the CNDDDB but the site is in the species' yearlong range.
Long-legged myotis	<i>Myotis volans</i>	—	—	—	Woodland and forest habitats especially above 4000 ft elevation, and also occurs in chaparral, coastal scrub, and Great Basin shrub. Roosts in rock crevices, caves, mines, buildings, under tree bark, and in snags. Feeding is over water and uses forests for cover and reproduction. Occurs throughout CA except Central Valley and deserts, and can be in SLO Co. throughout the year.	Potential. Suitable woodland with water sources are present, and the site is within the species' year-round range. Documented near San Simeon. Could forage onsite and roost in trees, including maternity roosts.



Common Name	Scientific Name	Fed	CA	CDFW	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
Monterey dusky-footed woodrat	<i>Neotoma macrotis luciana</i>	—	—	SSC	Builds large stick middens in chaparral and woodland habitats of moderate canopy and moderate to dense understory. Occurs in the Coast Ranges from Monterey Bay to Los Osos/Atascadero.	Potential. The slope with shrubby understory is potentially suitable and the site is in the range of the subspecies. No stick nests observed, and there were no records in the CNDDDB search but may be more common as specialized studies are needed to differentiate subspecies. Has been reported in the Fiscalini Ranch Preserve.
Pallid bat	<i>Antrozous pallidus</i>	—	—	SSC	Open dry habitats including deserts, grasslands, shrublands, woodlands, and forests. Roosts in rock outcrops, caves, crevasses, mines, hollow trees, and buildings that moderate temperature. Night roosts on porches and open buildings. The entire state of CA except the highest elevations in the Sierra Nevada are within the species' year-round range.	Potential. Could forage over the site and potentially roost in tree cavities. Has been recorded in the vicinity.
Southern sea otter	<i>Enydra lutris nereis</i>	T	—	FP	Nearshore marine habitats particularly with kelp forests and seagrass beds. Prey on marine invertebrates. Mating and pupping is throughout the year but peaks October to January and March/April. Currently ranges from mainland coastline from San Mateo Co. to Santa Barbara Co.	Not expected. Site is away from immediate coast. Known to occur in the ocean throughout the north coast area.
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	—	—	SSC	Prefers mesic habitats and forages along riparian habitats. Roosts in caves, cliffs, mines, tunnels, abandoned buildings and bridges. The year-round range of the species is considered to be all of California except high elevations in the Sierra Nevada.	Potential. Could forage onsite, but no structures for roosting are present. Individuals and roost sites have been recorded nearby.



Common Name	Scientific Name	Fed	CA	CDFW	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
Western red bat	<i>Lasiurus frantzii</i>	—	—	SSC	Grasslands, riparian forest, shrublands, open woodlands, and orchards. Roosts in forests and woodlands in trees or occasionally shrubs. Roost sites are in the foliage of riparian trees or in urban areas. Occurs throughout the state in summer, and in winter in coastal areas south of San Francisco.	Potential. Could forage over the site and roost in the pine trees. There were no records in the vicinity in the CNDDB, but known to occur in this area.
Western small-footed myotis	<i>Myotis ciliolabrum</i>	—	—	—	Arid woodland, open forest and brushy uplands near water from sea level to 2700 meters in elevation. Feeds on small flying insects. Night roosts are in buildings, caves, mines, crevices, and under bridges and bark. Maternity roosts are in buildings, caves and mines. Occurs in coastal CA from Contra Costa Co. to the Mexican border, foothills of the Sierra Nevada and Cascades, and eastern areas from Mono to San Bernardino Cos. Occurs year-round in SLO Co.	Potential. Suitable open woodland and water sources are present, and the site is within the year-round range of the species. Could night roost in trees but no structures for maternity roosts are present. There were no records in the CNDDB but the site is within the species' range.
Yuma myotis	<i>Myotis yumanensis</i>	—	—	—	Open forests and woodlands and forages over water sources such as ponds, streams, and stock tanks. Roosts in buildings, mines, caves, crevices and under bridges; night roosts in more open areas such as under tree bark or tree cavities. Occurs in this region yearlong.	Potential. Could forage or night roost in the Monterey Pine Forest year-round. Has been recorded nearby.

*E = Endangered; T = Threatened; C = Candidate; PE = Proposed Endangered; PT = Proposed Threatened; BCC = Birds of Conservation Concern (USFWS 2021); SSC = Species of Special Concern; FP = Fully Protected; WL = Watch List; '—' = no status; California Natural Diversity Database (California Department of Fish and Wildlife 2025a); Special Animals List (California Department of Fish and Wildlife 2025b); California Wildlife Habitat Relationships System (CDFW 2025e); A Guide to the Amphibians and Reptiles of California (California Herps 2025); eBird (The Cornell Lab of Ornithology 2025a); All About Birds (The Cornell Lab of Ornithology 2025b); Guide to North American Birds (Audubon 2025); Birds of Conservation Concern (USFWS 2021).

DESIGNATED CRITICAL HABITAT	
California Red-legged Frog	Present. Designated critical habitat is present throughout the project area and includes Cambria and surrounding areas.
South-central California coast DPS steelhead	Absent. Santa Rosa Creek is listed as critical habitat, and is outside of the study area.
Tidewater Goby	Absent. Occurs along the lower portion of San Simeon Creek north of the study area.

Sources: *Threatened and Endangered Species Active Critical Habitat Report (United States Fish and Wildlife Service 2025b)*, *National ESA Critical Habitat Mapper (National Marine Fisheries Service 2025)*.

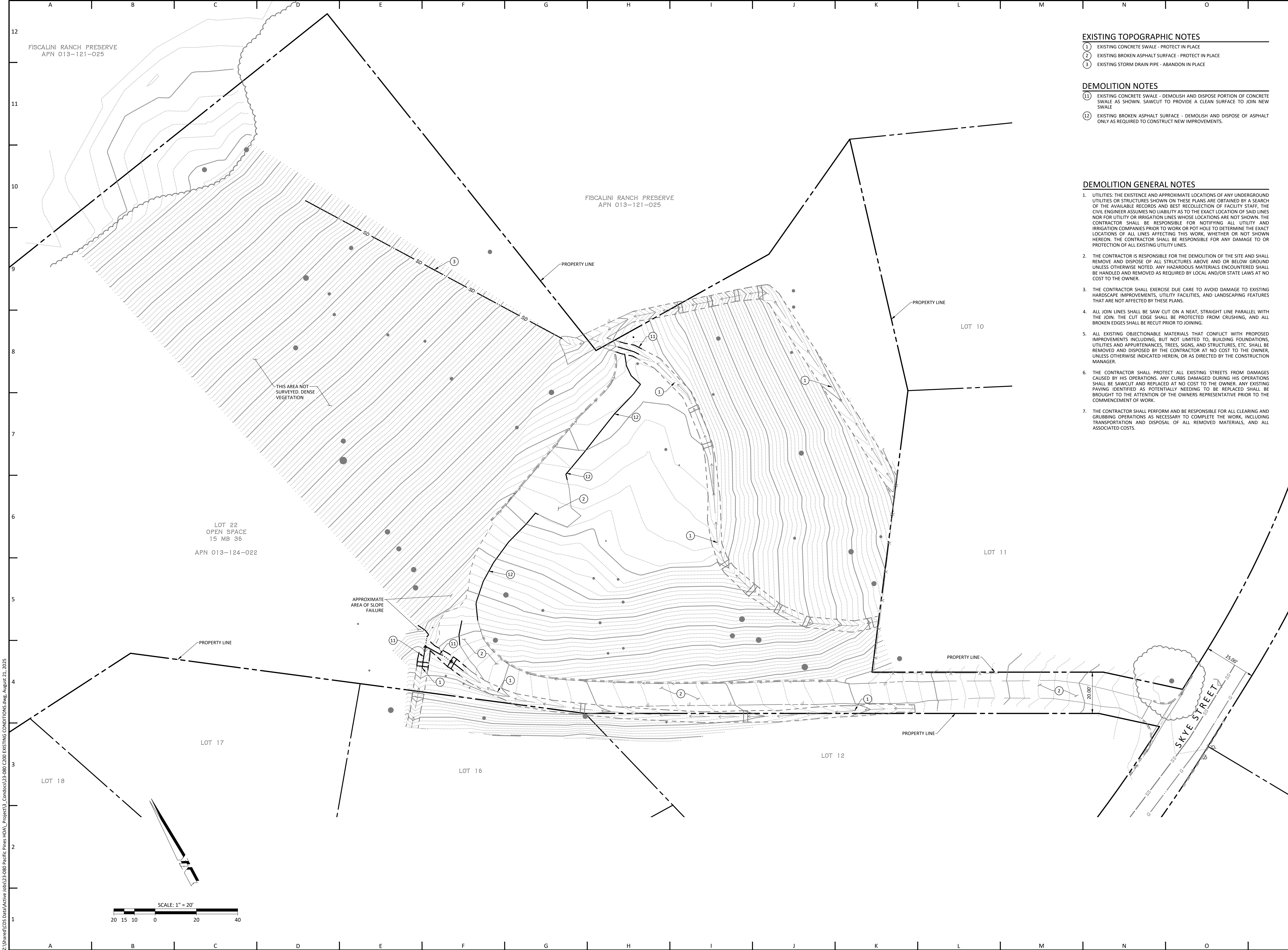
SENSITIVE NATURAL COMMUNITIES	
Central Coast Arroyo Willow Riparian Forest — State Rarity Rank S3.2	Absent. Dense closed-canopy forest characterized by arroyo willow (<i>Salix lasiolepis</i>) and/or Pacific willow (<i>S. lasiandra</i>). Occurs on moist to saturated sandy or gravelly soil in floodplains, low-gradient stream reaches and dune slack ponds. The site is located in an upland area away from streams and no willow species are present.
Central Coast Live Oak Riparian Forest — State Rarity Rank 3.2	Absent. Band of riparian on drier, outer floodplains along perennial streams between the more mesic cottonwood- or willow-dominated communities and more xeric chaparral. Dominated by coast live oak (<i>Quercus agrifolia</i>) with a relatively open understory of grasses. Other species in the understory include coyote brush (<i>Baccharis pilularis</i>), California rose (<i>Rosa californica</i>), fragrant sumac (<i>Rhus aromatica</i>), and blue elderberry (<i>Sambucus nigra</i> ssp. <i>caerulea</i>). The site is located in an upland area away from streams.
Central Coast Riparian Scrub — State Rarity Rank S3	Absent. A dense, shrubby streamside thicket dominated by any of several species of willows (<i>Salix</i> spp.) and has coyote brush (<i>Baccharis pilularis</i>) as a secondary component. Occurs on sand or gravel bars along rivers and streams with ground water close to the surface. Also occurs around dune slack ponds. The site is located in an upland area away from streams and no willow species are present.
Central Dune Scrub — State Rarity Rank S2.2	Absent. Restricted to coastal strip on stabilized backdunes. It is composed of low-growing scattered shrubs, subshrubs and herbs and is indicated by the presence of mock heather (<i>Ericameria ericoides</i>), dune bush lupine (<i>Lupinus chamissonis</i>), and beach sagewort (<i>Artemisia pycnocephala</i>). Site is located away from the immediate coastline and this community is not present.



SENSITIVE NATURAL COMMUNITIES	
Central Foredunes — State Rarity Rank S1.2	Absent. Areas of sand accumulation that are exposed to onshore winds and sparsely vegetated by suffrutescent plant species including sand verbena (<i>Abronia</i> sp.), sea rocket (<i>Cakile</i> sp.), and primrose (<i>Camissonia</i> sp.). Site is located away from the coastline and beaches and this community is not present.
Central (Lucian) Coastal Scrub — State Rarity Rank S3.3	Absent. Characterized by dense shrubs dominated by coyote brush (<i>Baccharis pilularis</i>), California sagebrush (<i>Artemisia californica</i>), seaside wild buckwheat (<i>Eriogonum latifolium</i>), mock heather (<i>Ericameria ericoides</i>), saw-toothed goldenbush (<i>Hazardia squarrosa</i>), and dune lupine (<i>Lupinus chamissonis</i>). It occurs on the ocean side of the Santa Lucia Range from Monterey and Point Conception on exposed, often south-facing slopes with shallow soils. While some characteristic species from this community were present onsite, the area was mapped as Monterey Pine Forest.
Central Maritime Chaparral — State Rarity Rank S2.2	Absent. Occurs on well-drained, sandy soils within the summer fog zone. Composed of sclerophyll shrubs dominated by one or more species of manzanita (<i>Arctostaphylos</i> spp.). Other species typically include coyote brush (<i>Baccharis pilularis</i>), chamise (<i>Adenostema fasciculatum</i>), coast live oak (<i>Quercus agrifolia</i>), orange bush monkeyflower (<i>Diplacus aurantiacus</i>) and several species of ceanothus (<i>Ceanothus</i> spp.). No areas of chaparral habitat were observed onsite.
Coastal and Valley Freshwater Marsh — State Rarity Rank S2.1	Absent. Occurs in permanently flooded sites with freshwater and lacking significant flow, dominated by perennial, emergent vegetation such as bulrushes (<i>Scirpus</i> sp. and <i>Schoenoplectus</i> sp.) and cattails (<i>Typha</i> sp.). No aquatic habitat is present onsite that supports emergent vegetation.
Coastal Terrace Prairie — State Rarity Rank S2.1	Absent. Occurs on marine terraces near the coast within the zone of coastal fog, below approximately 305 meters in elevation. Composed of a dense, tall (to 1 meter) grassland dominated by perennial grasses, such as California oatgrass (<i>Danthonia californica</i>) and tufted hair grass (<i>Deschampsia cespitosa</i>), and herbs such as California sea pink (<i>Armeria maritima</i>). No areas of coastal terrace prairie dominated by native species was observed onsite.
Freshwater Seep — State Rarity Rank S3.2	Absent. Occurs in permanently moist or wet soil that seeps from surfacing groundwater or water table, usually within grassland or meadow communities. Composed of mainly perennial herbs, especially sedges (<i>Carex</i> spp.) and rushes (<i>Juncus</i> spp.). No mesic habitat is present onsite that supports a dominance of hydrophytic herbs.

SENSITIVE NATURAL COMMUNITIES	
Monterey Pine Forest — State Rarity Rank S1.1	Present. Occurs within the limits of summer fog on well-drained sandy soils. It is dominated by Monterey pine (<i>Pinus radiata</i>) which can form up to 80% of the canopy. Often has coast live oak (<i>Quercus agrifolia</i>) as a secondary component. Understory species include woolly leaf manzanita (<i>Arctostaphylos tomentosa</i>), coyote brush (<i>Baccharis pilularis</i>), toyon (<i>Heteromeles arbutifolia</i>), California coffeeberry (<i>Frangula californica</i>), poison oak (<i>Toxicodendron diversilobum</i>) and western brackenfern (<i>Pteridium aquilinum</i>). There are only three natural stands in California, but Monterey pine has been widely planted. The largest natural stand is in the Monterey Peninsula, which has been fragmented by development. This community is present onsite and is mapped on Figure 4.
Vernal Marsh — State Rarity Rank S2	Absent. Vegetated by low, annual herbs such as sedges (<i>Carex</i> spp.) and rushes (<i>Juncus</i> spp.). Has marshy conditions or standing water following winter rains but is reduced or completely dry by summer. Often found at the transition between Coastal and Valley Freshwater Marsh and drier upland grassland. No wetland habitat was observed on the site.

Sources: Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986); California Natural Diversity Database (California Department of Fish and Wildlife 2025a); California Sensitive Natural Communities (California Department of Fish and Wildlife 2025d).



EXISTING TOPOGRAPHIC NOTES

- 1 EXISTING CONCRETE SWALE - PROTECT IN PLACE
- 2 EXISTING BROKEN ASPHALT SURFACE - PROTECT IN PLACE
- 3 EXISTING STORM DRAIN PIPE - ABANDON IN PLACE

DEMOLITION NOTES

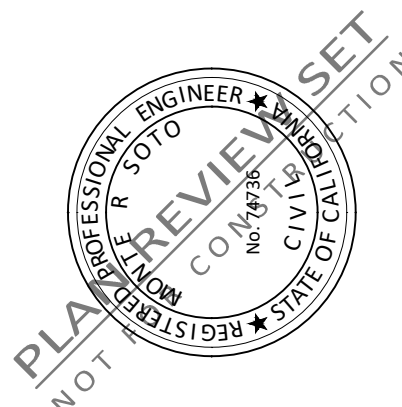
- 11 EXISTING CONCRETE SWALE - DEMOLISH AND DISPOSE PORTION OF CONCRETE SWALE AS SHOWN. SAWCUT TO PROVIDE A CLEAN SURFACE TO JOIN NEW SWALE
- 12 EXISTING BROKEN ASPHALT SURFACE - DEMOLISH AND DISPOSE OF ASPHALT ONLY AS REQUIRED TO CONSTRUCT NEW IMPROVEMENTS.

DEMOLITION GENERAL NOTES

- UTILITIES: THE EXISTENCE AND APPROXIMATE LOCATIONS OF ANY UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS AND BEST RECOLLECTION OF FACILITY STAFF. THE CIVIL ENGINEER ASSUMES NO LIABILITY AS TO THE EXACT LOCATION OF SAID LINES NOR FOR UTILITY OR IRRIGATION LINES WHOSE LOCATIONS ARE NOT SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY AND IRRIGATION COMPANIES PRIOR TO WORK OR POT HOLE TO DETERMINE THE EXACT LOCATIONS OF ALL LINES AFFECTING THIS WORK, WHETHER OR NOT SHOWN HEREON. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO OR PROTECTION OF ALL EXISTING UTILITY LINES.
- THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION OF THE SITE AND SHALL REMOVE AND DISPOSE OF ALL STRUCTURES ABOVE AND OR BELOW GROUND UNLESS OTHERWISE NOTED. ANY HAZARDOUS MATERIALS ENCOUNTERED SHALL BE HANDLED AND REMOVED AS REQUIRED BY LOCAL AND/OR STATE LAWS AT NO COST TO THE OWNER.
- THE CONTRACTOR SHALL EXERCISE DUE CARE TO AVOID DAMAGE TO EXISTING HARDSCAPE IMPROVEMENTS, UTILITY FACILITIES, AND LANDSCAPING FEATURES THAT ARE NOT AFFECTED BY THESE PLANS.
- ALL JOIN LINES SHALL BE SAW CUT ON A NEAT, STRAIGHT LINE PARALLEL WITH THE JOIN. THE CUT EDGE SHALL BE PROTECTED FROM CRUSHING, AND ALL BROKEN EDGES SHALL BE RECURT PRIOR TO JOINING.
- ALL EXISTING OBJECTIONABLE MATERIALS THAT CONFLICT WITH PROPOSED IMPROVEMENTS INCLUDING, BUT NOT LIMITED TO, BUILDING FOUNDATIONS, UTILITIES AND APPURTENANCES, TREES, SIGNS, AND STRUCTURES, ETC. SHALL BE REMOVED AND DISPOSED BY THE CONTRACTOR AT NO COST TO THE OWNER, UNLESS OTHERWISE INDICATED HEREIN, OR AS DIRECTED BY THE CONSTRUCTION MANAGER.
- THE CONTRACTOR SHALL PROTECT ALL EXISTING STREETS FROM DAMAGES CAUSED BY HIS OPERATIONS. ANY CURBS DAMAGED DURING HIS OPERATIONS SHALL BE SAWCUT AND REPLACED AT NO COST TO THE OWNER. ANY EXISTING PAVING IDENTIFIED AS POTENTIALLY NEEDING TO BE REPLACED SHALL BE BROUGHT TO THE ATTENTION OF THE OWNERS REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF WORK.
- THE CONTRACTOR SHALL PERFORM AND BE RESPONSIBLE FOR ALL CLEARING AND GRUBBING OPERATIONS AS NECESSARY TO COMPLETE THE WORK, INCLUDING TRANSPORTATION AND DISPOSAL OF ALL REMOVED MATERIALS, AND ALL ASSOCIATED COSTS.

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ENGINEER OF RECORD:



PACIFIC PINES HOA EROSION REPAIR

SKYE STREET
CAMBRIA, CA
APN: 013-124-022

PACIFIC PINES HOA
SKYE ST.
CAMBRIA, CA 93428

PROJECT NAME:

PLANS PREPARED FOR:

REVISIONS:

REVIEWED BY: MRS

PREPARED BY: MRS

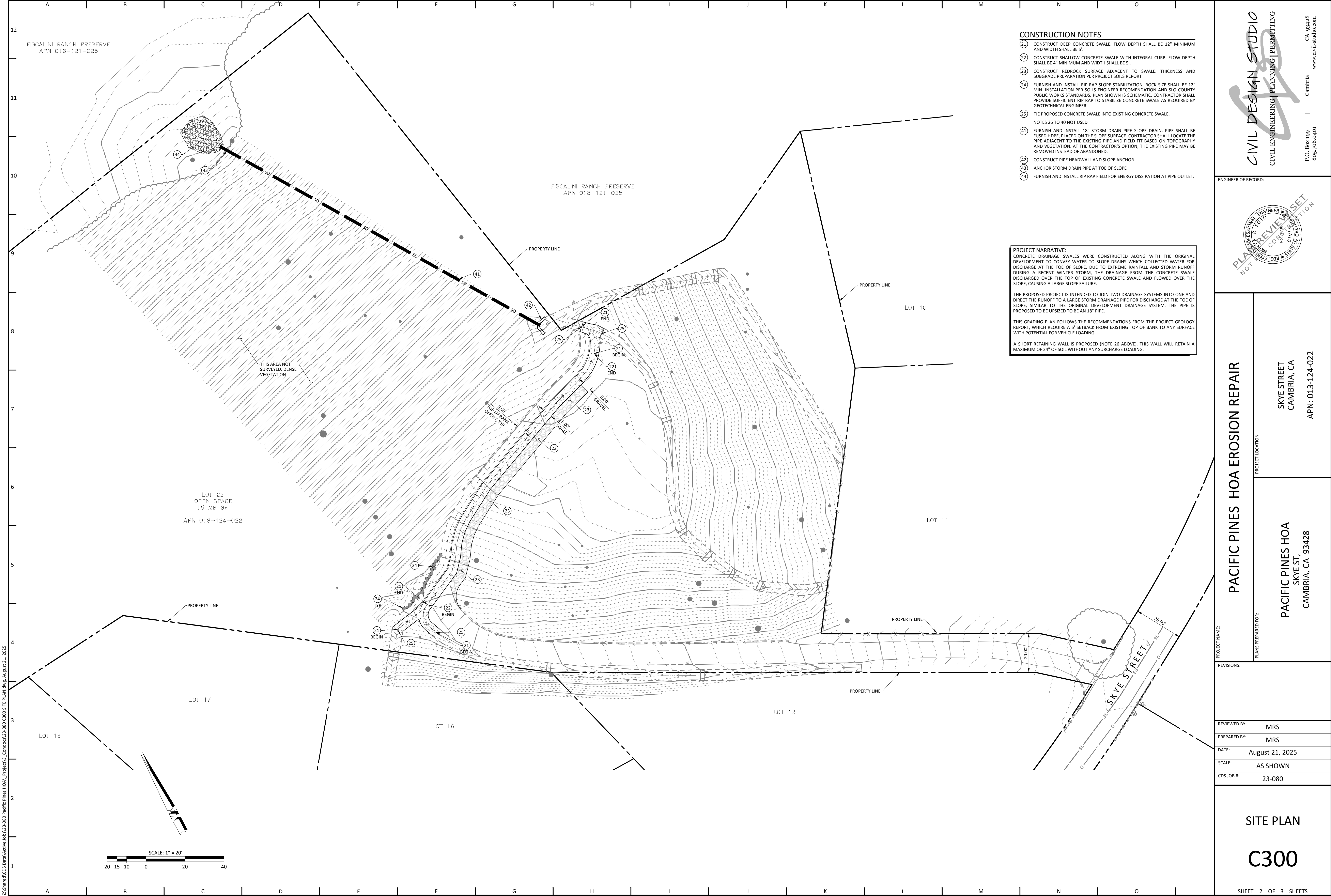
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SCALE: AS SHOWN

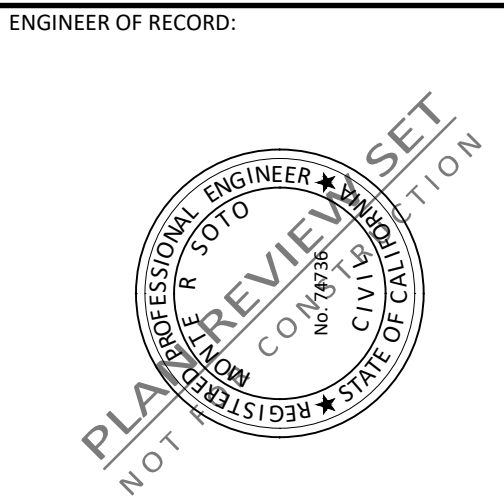
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EXISTING
CONDITIONS

C200



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PACIFIC PINES HOA EROSION REPAIR

PROJECT LOCATION:
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APN: 013-124-022

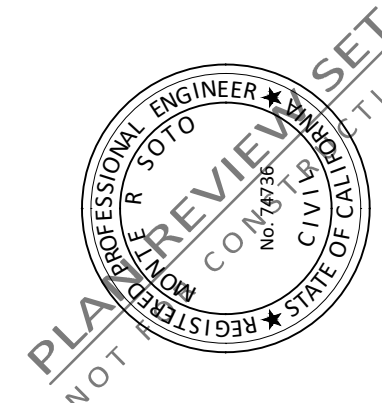
PLANS PREPARED FOR:
PACIFIC PINES HOA
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CAMBRIA, CA 93428

REVISIONS:

REVIEWED BY: MRS
PREPARED BY: MRS
DATE: August 21, 2025
SCALE: AS SHOWN
CDS JOB #: 23-080

SITE PLAN
C300
SHEET 2 OF 3 SHEETS

ENGINEER OF RECORD:



PACIFIC PINES HOA EROSION REPAIR

PROJECT LOCATION:

PACIFIC PINES HOA
SKYE ST,
CAMBRIA, CA 93428

SKYE STREET
CAMBRIA, CA
APN: 013-124-022

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PROJECT NAME:

REVISIONS

REVIEWED BY: MRS

PREPARED BY: MRS

DATE: August 21, 2025

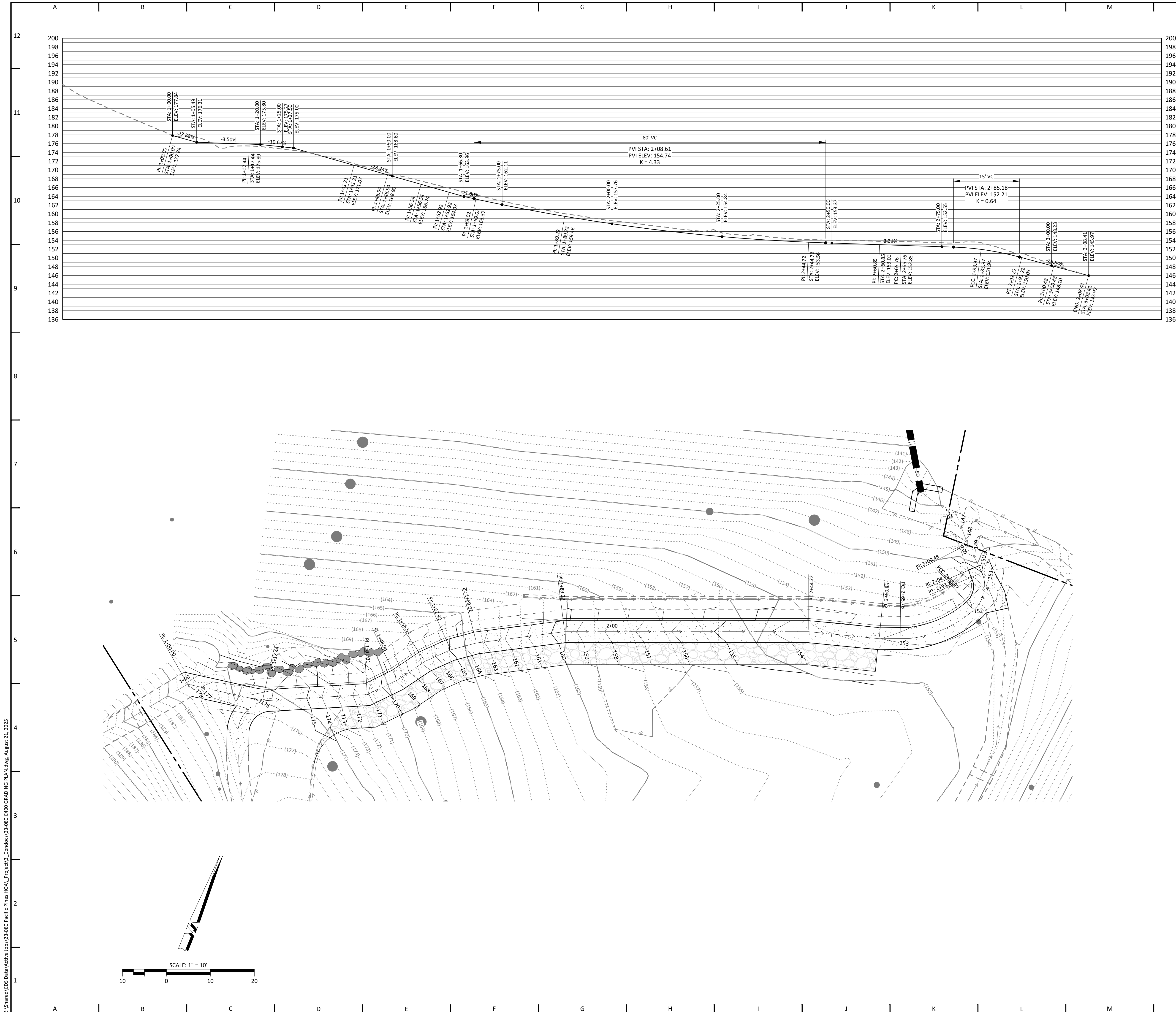
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GRADING PLAN AND SWALE PROFILE

C400

SHEET 3 OF 3 SHEETS



ENGINEERING GEOLOGY INVESTIGATION

DATE:

February 18, 2025

PROJECT NUMBER:

SL14118-2

CLIENT:

Pacific Pines HOA
PO Box 972
Cambria, CA 93428

PROJECT NAME:

Skye Street Drainage and
Roadway
APN: 013-124-022
Cambria area
San Luis Obispo County
California

1.0 INTRODUCTION

This report presents the results of the geologic investigation for the proposed repair and improvements of the existing drainage and roadway on off Skye Street, APN: 013-124-022, Cambria area of San Luis Obispo County, California. See Figure 1: Area Location Map for the general location of the project area.

1.1 Site Description

The Skye Street repair area is located at 35.55875986 degrees north latitude and -121.09028964 degrees west longitude at a general elevation of 170 feet above mean sea level. The property is irregular in shape with Skye Street forming the southeastern property boundary. The project property will hereafter be referred to as the "Site."

The Site is situated on a hill side that drops to the north at an approximate gradient of 2 to 1 (horizontal to vertical). Surface drainage follows the topography to existing concrete swales then to the northwest to the base of the slope. An existing asphalt roadway provides access to a vacant pad at the Site. A slope failure occurred on the northern slope due to concentrated drainage from the existing roadway and drainage swales. The Site is located within a Geologic Study Area, see Figure 2.

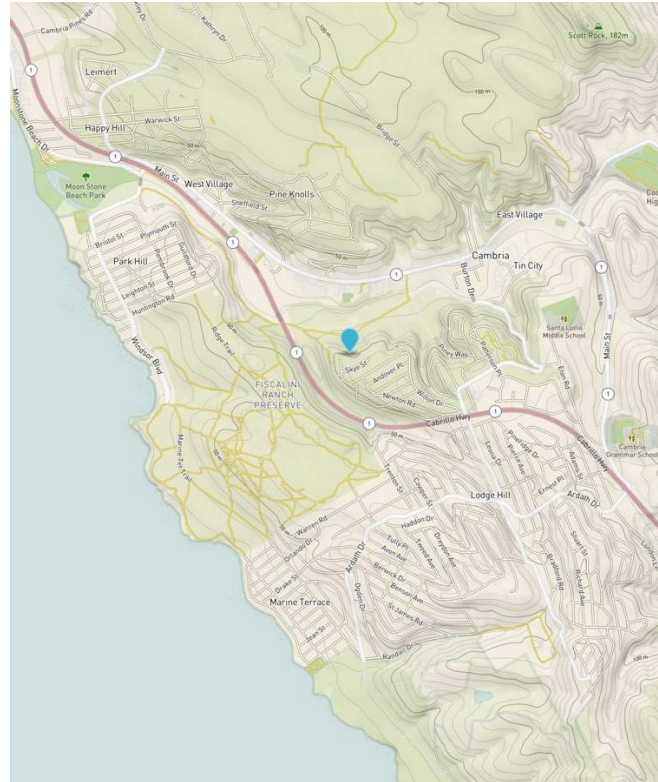


Figure 1: Area Location Map

1.2 Project Description

It is our understanding the project is limited to a roadway realignment and improvements to the existing roadway and drainage facilities (see Figure 3). Grading quantities are unknown at the time of this report. New drainage elements are anticipated to include reconstruction a section of the roadway, new curb and gutter along the top of slope, and slope drain.

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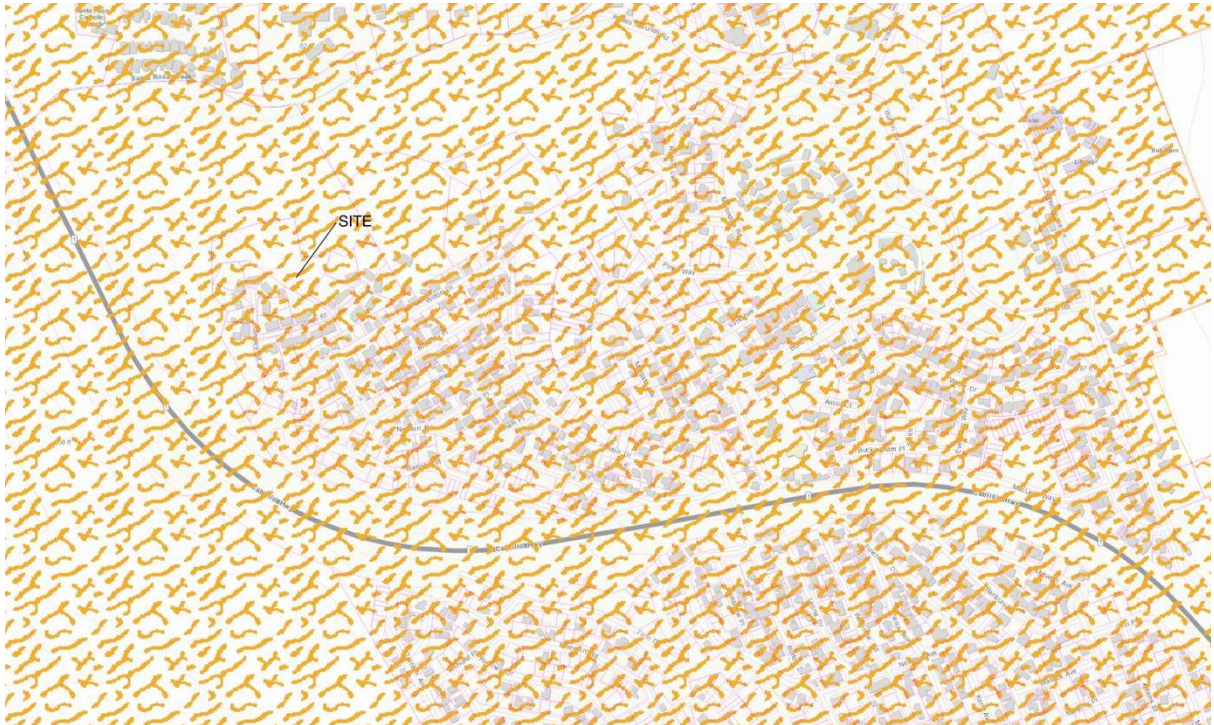


Figure 2: Geologic Study Area Map (San Luis Obispo County Land Use View)

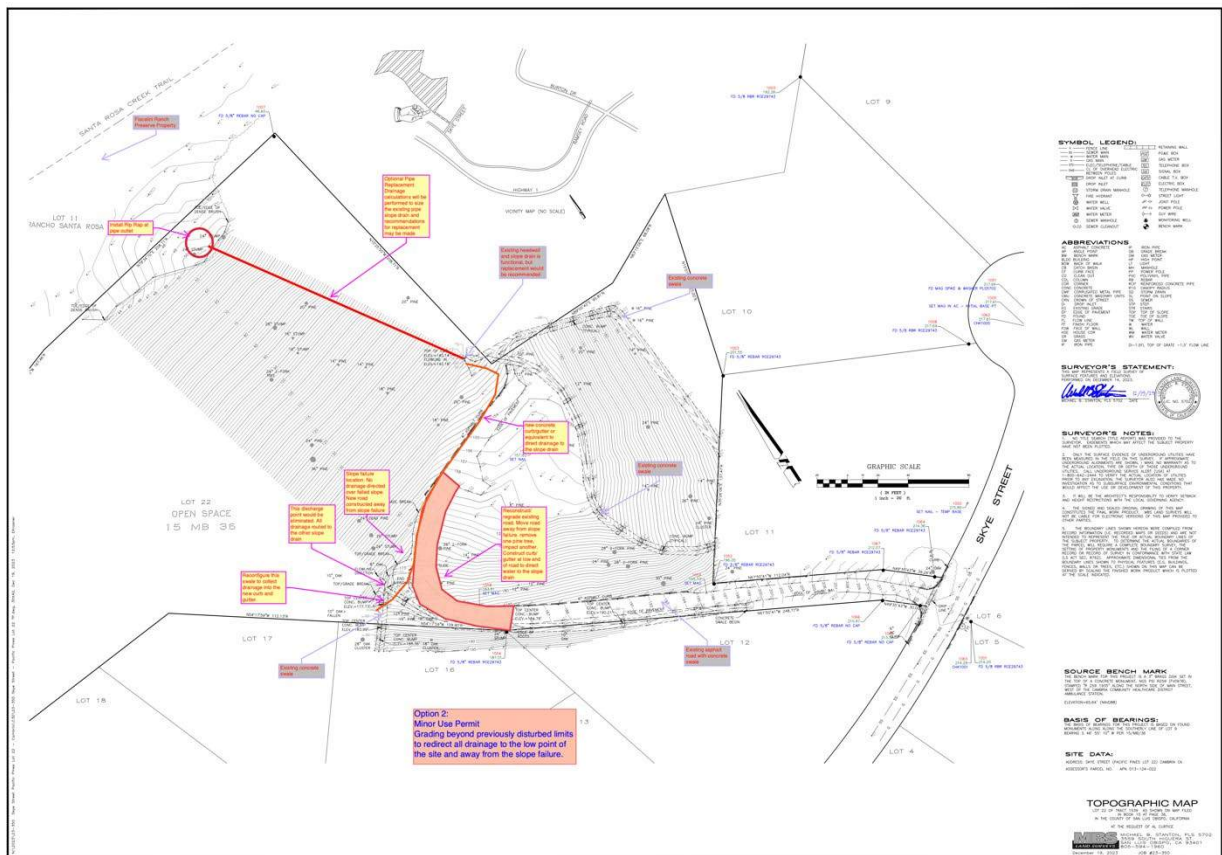


Figure 3: Topographic Survey (MBS Land Surveys, 2023)

2.0 PURPOSE AND SCOPE

The purpose of this investigation was to evaluate engineering geologic hazards at the Site and to develop conclusions and recommendations regarding site development. The scope of this investigation consisted of:

1. Review of historical aerial photographs, pertinent published and unpublished geotechnical studies and literature, and geologic maps for the subject project area.
2. A field study consisting of site reconnaissance and subsurface exploration including exploratory borings in order to formulate a description of the sub-surface conditions at the Site.
3. A review of regional faulting and seismicity hazards.
4. A review of landslide potential, surface and groundwater conditions, and liquefaction hazards.
5. Development of recommendations for site preparation.
6. Preparation of this report that summarizes our findings, conclusions, and recommendations regarding engineering geology aspects of the project.

3.0 GEOLOGIC RECOMMENDATIONS

The proposed development is geologically suitable provided that the recommendations provided herein are implemented. The following are recommended for implementation at the Site.

1. Due to the slope failure, it is recommended that the existing roadway alignment be realigned, and existing drainage swales/controls be reestablished to direct all drainage to the existing drainage outlet.
2. The project civil engineer should evaluate the existing slope drainpipe to determine if it needs repair/replacement and is adequately sized for anticipated flows. Rock rip-rap is recommended for the slope drain discharge. It is recommended that geotextile fabric (Enkamat 7010 or similar) be placed underneath the rip-rap and installed per the manufacturer's recommendations.
3. It is recommended that the roadway be realigned to allow for a minimum 5-foot shoulder from the top of bluff.
4. A curb is recommended along the top of slope to prevent over slope drainage.
5. The concrete swales along the western property boundary are currently directed towards the slope failure and should be realigned to the northeast towards the slope drainpipe.
6. Additional construction recommendations are provided in the concurrent Soils Engineering Report by this firm.
7. Excavation, fill, and construction activities should be in accordance with appropriate codes and ordinances of the County of San Luis Obispo. In addition, unusual subsurface conditions encountered during grading such as springs or fill material should be brought to the attention of the Engineering Geologist and Soils Engineer.

4.0 ENGINEERING GEOLOGY

4.1 Regional Geology

The Site is located in the vicinity of the San Luis Range of the Coast Range Geomorphic Province of California. The Coast Ranges lie between the Pacific Ocean and the Sacramento-San Joaquin Valley and trend northwesterly along the California Coast for approximately 600 miles between Santa Maria and the Oregon border.

Regionally, the Site is located on the Cambrian Slab composed of a large, thick block of Cretaceous age sediments that are surrounded by Franciscan Complex rocks. The Cambrian Slab extends from the Los Osos fault south and northward to the Oceanic Fault.

4.2 Local Geology

Locally, the site is located within Unnamed Sedimentary Rocks as depicted on Plate 1A, Site Engineering Geology Map. Hall, 1974 and Dibblee, 2007 mapped the Site as underlain by Cretaceous age Unnamed Sedimentary Rocks (Ks/Kss) units.

Two exploratory borings were excavated within the property to a maximum depth of 8 feet below ground surface. Information derived from subsurface exploration was used to classify subsurface soil and formational units and to supplement geologic mapping.

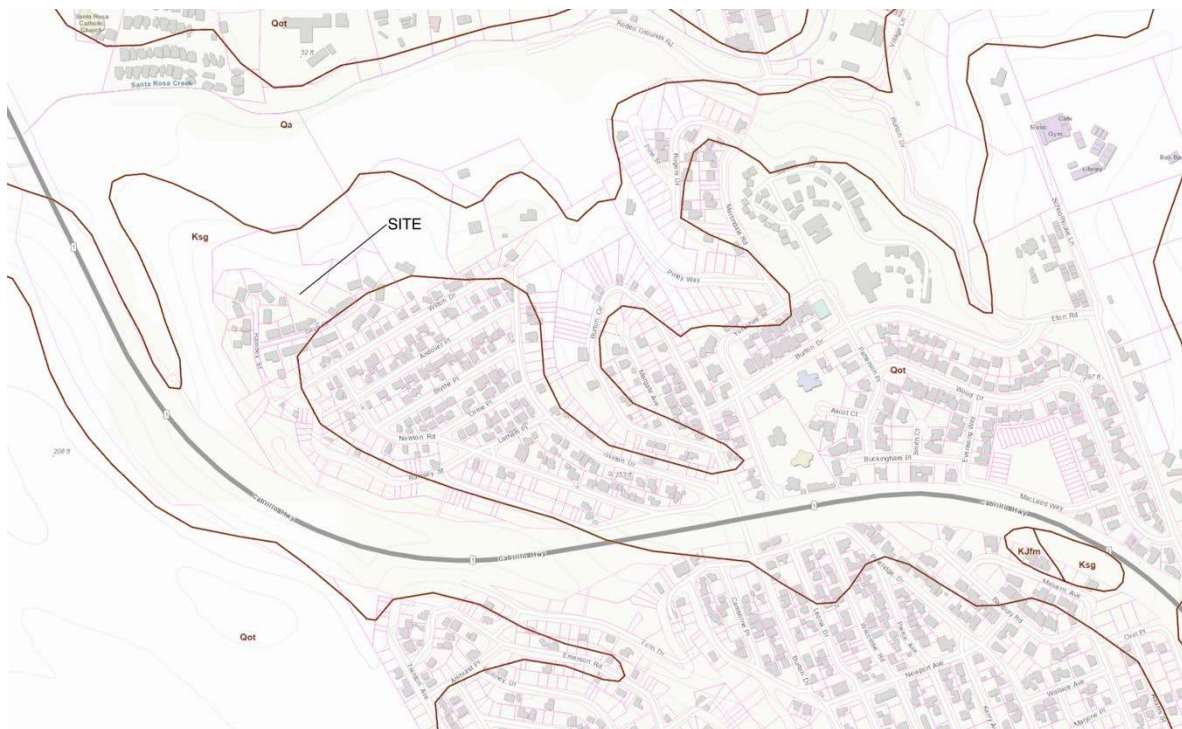


Figure 4: Geologic Map (County of San Luis Obispo Land Use View)

4.2.1 Surficial Soil

Colluvium (Qc). Surface deposits are observed overlying the Unnamed Sedimentary Rocks to a maximum depth of 1 to 2 feet below existing grade. These deposits are termed colluvium. The colluvium at the site is observed to consist of very dark brown sandy elastic silt with gravel

encountered in a very moist condition. The colluvium was observed to be 1 to 2 feet thick as observed within borings B-1 and B-2. Boring logs are presented in Appendix A.

4.2.2 Formational Units

Unnamed Sedimentary Rocks (Ks). Hall, 1974 maps the Site as within Unnamed Sedimentary Rocks (Ks). Hall, 1974 describes the Unnamed Sedimentary Rocks as “Feldspathic greywacke or arkosic wacke sandstone and interbedded greenish-brown or black micaceous shale and siltstone. Thick-bedded tan to dark-brown medium-grained sandstone composed of quartz, 50% to 70%; altered plagioclase and K-feldspar, 20% to 30%; claystone, chert fragments, and biotite, 2% to 7%.” The Unnamed Sedimentary Rocks was encountered underlying the colluvium within borings B-1 and B-2. The Unnamed Sedimentary Rocks at the site was observed to consist of dark gray to light brown medium-grained sandstone observed to be massive, slightly to moderately fractured, moderately hard and moderately weathered. Boring logs are presented in Appendix A.

4.3 Surface and Ground Water Conditions

Surface drainage follows the topography to the northwest toward an existing drainage channel. Surface drainage follows the topography to existing concrete swales then to the northwest to the base of the slope. No springs or seeps were observed at the project. Groundwater was not observed within the borings to a depth of 8 feet below ground surface, however groundwater elevations may vary seasonally.

4.4 Active Faulting and Coseismic Deformation

Many faults are mapped of varying types, lengths, and age. An active fault is one that shows evidence of displacement within the last 11,000 years (Recent epoch). A fault which displaces deposits of late Pleistocene age (500,000 to 11,000 years) but with no evidence of Recent movement is termed potentially active. Inactive fault is one that displace rocks of early Pleistocene or older (500,000 years or older).

Similar to the general area, the Site can be affected by moderate to major earthquakes centered on one of the known large, Holocene active faults listed in Table No. 1. Moment magnitudes are expressed, although any event on these faults could result in moderate to severe ground shaking at the subject property.

Table 1: Distance and Moment Magnitude of Closest Faults

Closest Active Faults to Site	Approximate Distance (miles)	Moment Magnitude (Mw)
San Simeon Fault	8.0	7.3
Los Osos Fault	27.0	6.8
San Andreas	42.5	8.0

The closest known active portion of a Holocene age fault is an active portion of the San Simeon fault that is located approximately 8.0 miles northwest of the Site (Jennings, 2010). Plate 3 is a Regional Fault Map for the area. The San Andreas fault is the most likely active fault to produce ground shaking at the Site although it is not expected to generate the highest ground accelerations because of its distance from the Site.

4.4.1 Cambria Fault

The Cambria fault is in the vicinity of the Site and can be considered part of the Oceanic Fault Zone at its southern end near the City of San Luis Obispo, California. Plate 3 depicts the location of the

Cambria fault (Jennings, 2010). The Cambria fault becomes indistinct north of San Simeon Creek. Splays of the Cambria fault break Pliocene (5 to 2 million years before present) strata east of the town of Cambria, but there is no known breakage of Holocene rocks by the Cambria fault. The Cambria fault is complicated by the intersection of many older emplacement related shear zones within the Franciscan mélange along the fault zone.

Jennings, 2010 classifies the majority of this fault as Quaternary active, showing evidence of displacement during late Quaternary time (between 700,000 years before present to 10,000 years before present). The most northerly extent of Quaternary faulting on the Cambria fault depicted on Jennings's map is present only to the town of Cambria. North of the town of Cambria, the Cambria fault is depicted as a concealed fault without recognized Quaternary displacement.

Hart et al., 1985 describes the Cambria fault as a vertical to steeply dipping, southwest-dipping, normal fault in Cretaceous sedimentary units. Additionally, the fault is poorly defined and may offset late Pleistocene terrace deposits (more than 125,000 years old) and may be concealed locally by younger terrace deposits, Quaternary landslides, and Holocene alluvium. Hall, 1974 mapped splays of the Cambria fault approximately 3,300 feet northeast of the property (see Plate 2A).

4.5 Landslides

Hall, 1974 and Dibblee, 2007 did not map landslides in the immediate vicinity of the property (the closest landslide is mapped greater than one mile east of the Site). During a review of aerial photography (1937, 1949, 1956, current), landslides were not observed at the Site. However, during surface mapping a slope failure is observed on the northern slope extending from the existing roadway to the base of the slope. It appears the failure is due to concentrated drainage from a previous storm event. It is recommended that drainage be not allowed to flow over the top of slope. Due to the failure, it is recommended that the existing roadway alignment be realigned and existing drainage swales/controls be reestablished to direct all drainage to the existing drainage outlet. The project civil engineer should evaluate the existing pipe to determine if it needs repair or replacement and is adequately sized for anticipated flows. It is recommended that the roadway be realigned to allow for a minimum 5-foot shoulder from the top of bluff. A curb is recommended along the top of slope to prevent drainage toward the slope. In addition, the concrete swales along the western property boundary are currently directed towards the slope failure and should be realigned to the northeast. It is also recommended that rip rap be placed at the base of the slope drain to prevent scour /erosion at the base of the slope. Provided that these recommendations are implemented, there is a low potential for landslides at the Site. Figure 6 depicts a historical aerial photograph of the Site. Plate 4 presents a current aerial photograph.

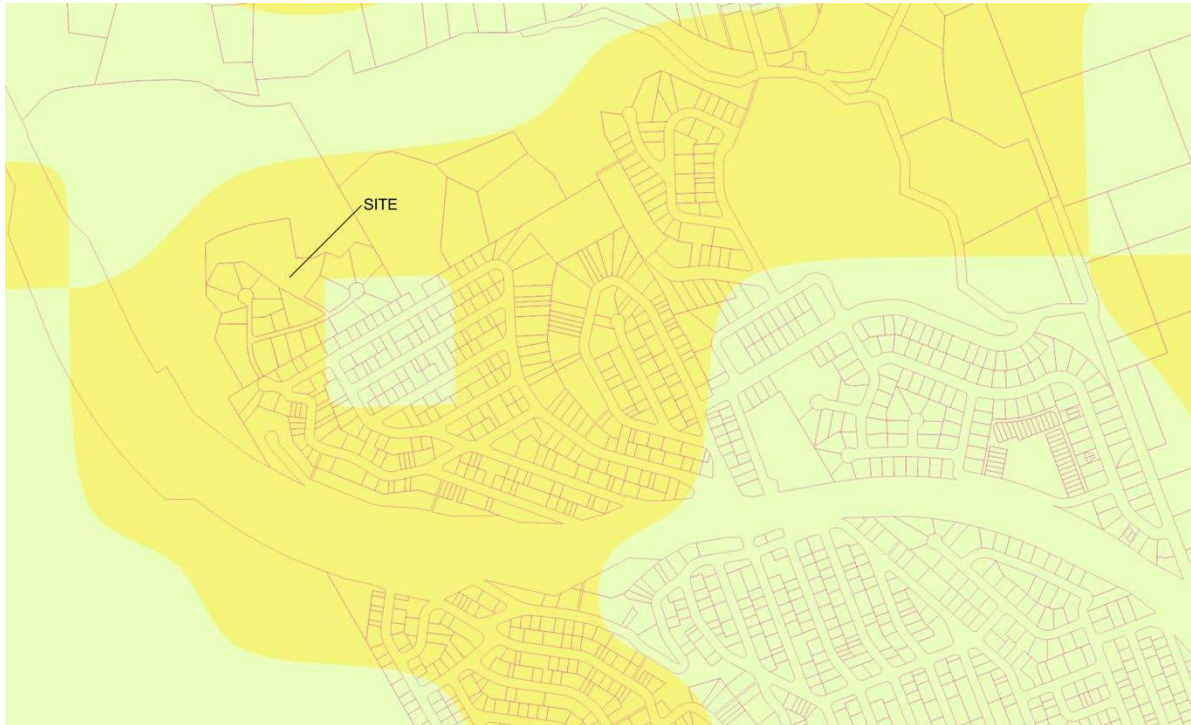


Figure 5: Landslide Potential Map (County of San Luis Obispo Land Use View)



Figure 6: Historical Aerial Photograph (1956)

4.6 Flooding and Severe Erosion

The proposed improvements are not located within or near the 100-year or 500-year flood zone based on Federal Emergency Management Agency flood zone maps (FEMA, 2017).

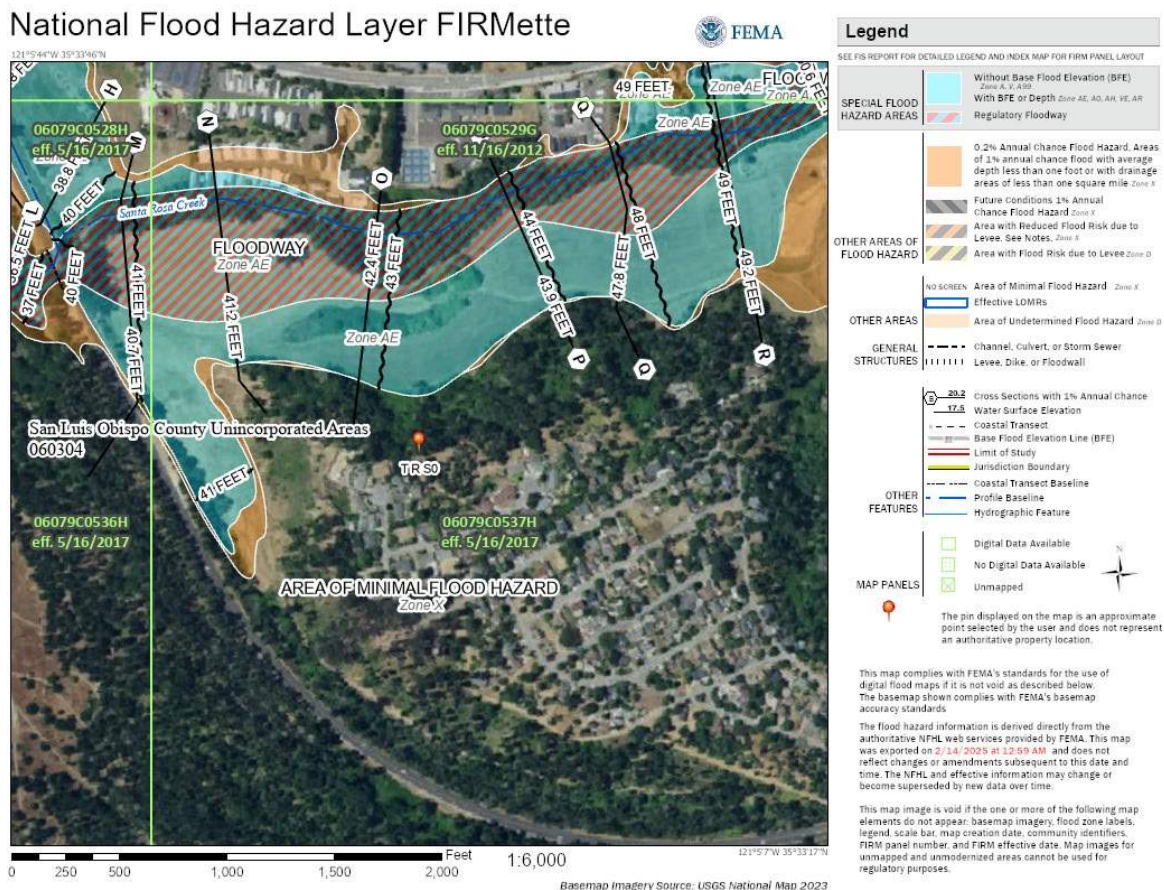


Figure 7: Flood Map (FEMA, 2017)

The surficial and formational deposits are subject to erosion where not covered with vegetation or hardscape. The potential for severe erosion is considered low provided that vegetation and erosion control measures are implemented immediately after the completion of grading.

4.7 On-site Septic Systems

No septic system is proposed as part of the project.

4.8 Hydrocollapse of Alluvial Fan Soils

The potential for hydro collapse of subsurface materials is considered low due to the absence of alluvial fan material at the Site.

5.0 SISMOLOGY AND CALCULATION OF EARTHQUAKE GROUND MOTION

5.1 Seismic Hazard Analysis and Structural Building Design Parameters

Estimating the design ground motions at the Site depends on many factors including the distance from the Site to known active faults; the expected magnitude and rate of recurrence of seismic events produced on such faults; the source-to-site ground motion attenuation characteristics; and the Site soil profile characteristics. According to section 1613 of the 2022 CBC (CBSC, 2022), all structures and portions of structures should be designed to resist the effects of seismic loadings caused by earthquake ground motions in accordance with the ASCE 7: Minimum Design Loads for Buildings and Other Structures, hereafter referred to as ASCE 7-16 (ASCE, 2016). The Site soil profile classification (Site

Class) can be determined by the average soil properties in the upper 100 feet of the Site profile and the criteria provided in Table 20.3-1 of ASCE 7-16.

Spectral response accelerations and peak ground accelerations, provided in this report were obtained using the computer-based Seismic Design Maps tool available from the Structural Engineers Association of California (SEAOC, 2025). This program utilizes the methods developed in ASCE 7-16 in conjunction with user-inputted Site location to calculate seismic design parameters and response spectra (both for period and displacement) for soil profile Site Classes A through E.

Site coordinates of 35.55875986 degrees north latitude and -121.09028964 degrees west longitude were used in the web-based probabilistic seismic hazard analysis (SEAOC, 2025). Based on the results from the in-situ tests performed during the field investigation, the Site was defined as **Site Class C**, "Very Dense Soil and Soft Rock" profile per ASCE7-16, Chapter 20. Relevant seismic design parameters obtained from the program are summarized in Table 2: Seismic Design Parameters

Table 2: Seismic Design Parameters

Site Class	C "Very Dense Soil and Soft Rock"
Seismic Design Category	D
1-Second Period Design Spectral Response Acceleration, S_{D1}	0.437g
Short-Period Design Spectral Response Acceleration, S_{Ds}	0.969g
Site Specific MCE Peak Ground Acceleration, PGA_M	0.655g

6.0 LIQUEFACTION

Liquefaction occurs when saturated cohesionless soils lose shear strength due to earthquake shaking. Ground motion from an earthquake may induce cyclic reversals of shear stresses of large amplitude. Lateral and vertical movement of the soil mass combined with the loss of bearing strength can result from this phenomenon. Liquefaction potential of soil deposits during earthquake activity depends on soil type, void ratio, groundwater conditions, the duration of shaking, and confining pressures on the potentially liquefiable soil unit. Fine, poorly graded loose sand, shallow groundwater, high intensity earthquakes, and long duration of ground shaking are the principal factors leading to liquefaction.

As the underlying material encountered at the Site was weathered rock rather than soil, there is no potential for liquefaction, seismically induced settlement or differential settlement. Rock material differs from soil in that it cannot be saturated, cohesion is considered infinite and relative density is not applicable. Assuming the rock material encountered at the Site accurately represents these conditions, the liquefaction potential at the Site is considered low.

7.0 TSUNAMIS AND SEICHES

Tsunamis and seiches are two types of water waves that are generated by earthquake events. Tsunamis are broad-wavelength ocean waves and seiches are standing waves within confined bodies of water, typically reservoirs. The Tsunami Inundation Map for Emergency Planning (State of California, 2021) depicts the Site outside the tsunami inundation zone. As the property is at an elevation over 230 feet, the potential for a tsunami to affect the Site is low.

8.0 HAZARDS FROM GEOLOGIC MATERIALS

8.1 Expansive Soils

The potential for expansive soil at the Site is medium based on laboratory testing for the concurrent Soils Engineering Report, expansion index of 74.

8.2 Naturally Occurring Asbestos

As Franciscan Complex material was not observed at the site, there is a low potential for naturally occurring asbestos at the property.

8.3 Radon and Other Hazardous Gases

The potential for radon or other hazardous gases is low due to the absence of Monterey Formation formational units and other identified radon producing formations.

9.0 GRADING OPERATIONS, CUT AND FULL, SUBDRAINS

Based on the project site plan, it is anticipated that roadway improvements will be within over-excavated engineered fill. Conventional grading equipment may be used for excavations. The Soils Engineering Report provides additional foundation and construction recommendations. Based on the field investigation, subdrains are not anticipated.

Construction inspections and testing during all grading and excavating operations should be performed by the project Soils Engineer/Engineering Geologist. Section 1705.6A of the 2022 CBC (CBSC, 2022) requires the following inspections by the Soils Engineer/Engineering Geologist as shown in Table 3: Required Verification and Inspections of Soils:

Table 3: Required Verification and Inspections of Soils

Verification and Inspection Task	Continuous During Task Listed	Periodically During Task Listed
1. Verify materials below footings are adequate to achieve the design bearing capacity.	-	X
2. Verify excavations are extended to proper depth and have reached proper material.	-	X
3. Perform classification and testing of controlled fill materials.	-	X
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of controlled fill.	X	-
5. Prior to placement of controlled fill, observe sub-grade and verify that site has been prepared properly.	-	X

10.0 ADDITIONAL SERVICES

The recommendations contained in this report are based on exploratory borings and on the continuity of the sub-surface conditions encountered. It is assumed that GeoSolutions, Inc. will be retained to perform the following services:

1. Consultation during plan development.
2. A plan review of final grading and drainage documents prior to construction.

3. Additionally, construction observation by the Engineering Geologist and/or Soils Engineer may be necessary to verify sub-surface conditions during excavation activities.
4. Final grading report and as-built map in accordance with County Guidelines for Engineering Geology Reports, Item 29 (San Luis Obispo County Department of Planning and Building, 2016).

11.0 LIMITATIONS AND UNIFORMITY OF CONDITIONS

The recommendations of this report are based upon the assumption that the soil conditions do not deviate from those disclosed during our study. Should any variations or undesirable conditions be encountered during the development of the Site, GeoSolutions, Inc. should be notified immediately and GeoSolutions, Inc. will provide supplemental recommendations as dictated by the field conditions.

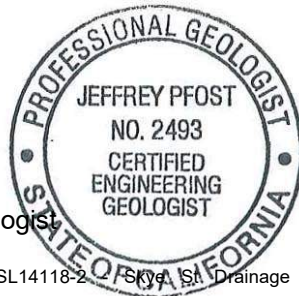
This report is issued with the understanding that it is the responsibility of the owner or his/her representative to ensure that the information and recommendations contained herein are brought to the attention of the architect and engineer for the project, and incorporated into the project plans and specifications. The owner or his/her representative is responsible to ensure that the necessary steps are taken to see that the contractor and subcontractors carry out such recommendations in the field.

As of the present date, the findings of this report are valid for the property studied. With the passage of time, changes in the conditions of a property can occur whether they are due to natural processes or to the works of man on this or adjacent properties. Therefore, this report should not be relied upon after a period of 3 years without our review nor should it be used or is it applicable for any properties other than those studied. However, many events such as floods, earthquakes, grading of the adjacent properties and building and municipal code changes could render sections of this report invalid in less than 3 years.

Thank you for the opportunity to have been of service in preparing this report. If you have any questions or require additional assistance, please feel free to contact the undersigned at (805) 543-8539.

Sincerely,
GeoSolutions, Inc.


Jeffrey Pfof, CEG 2493
Principal Engineering Geologist



\\192.168.1.100\\s\\SL14000-SL14499\\SL14118-2 - Skye St Drainage GEO\\Geology\\SL14118-2 Skye Street Drainage Engineering Geology Investigation.docx

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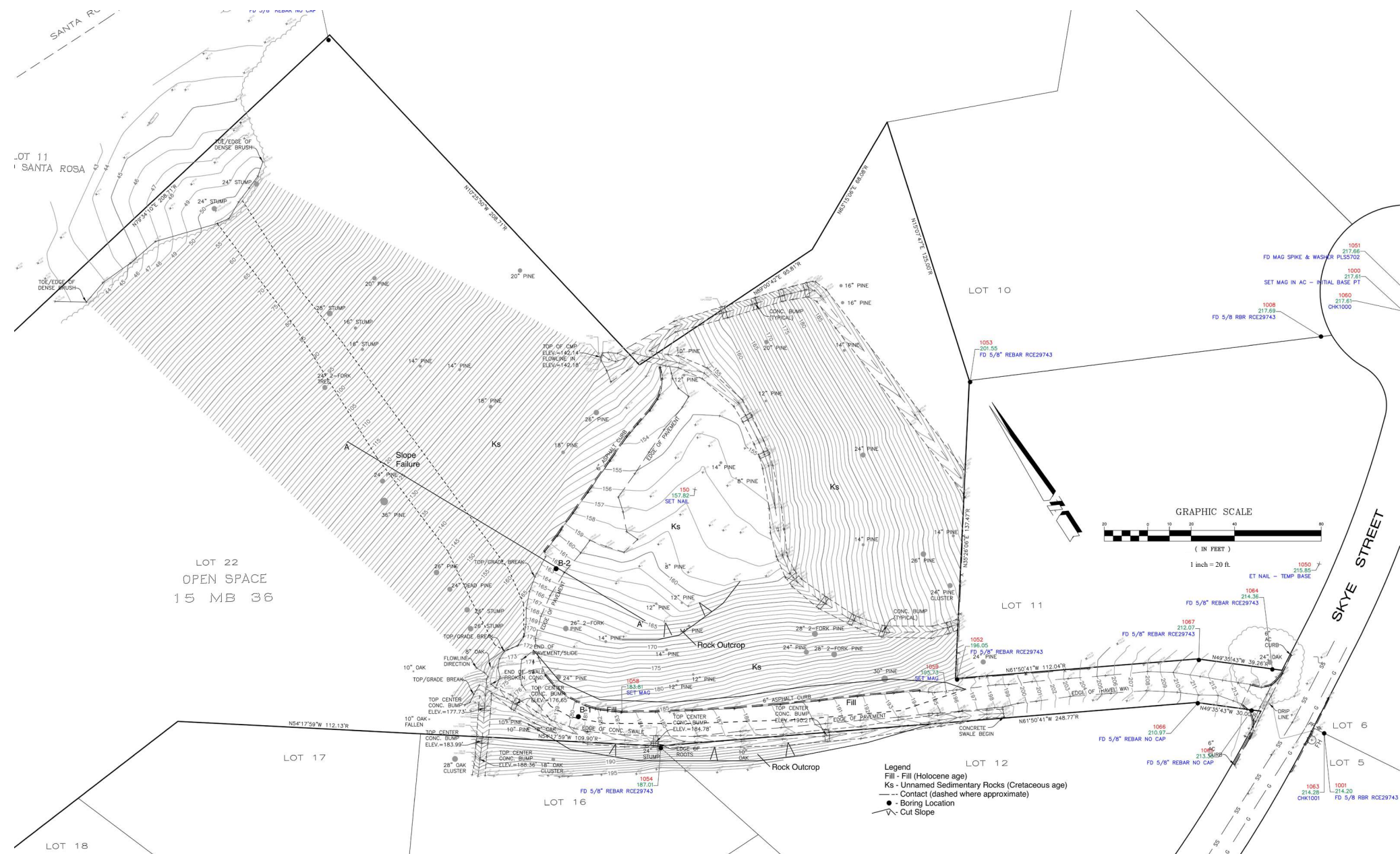
PLATES

Plate 1A, 1B - Site Engineering Geologic Map and Cross Section

Plate 2A, 2B – Regional Geologic Map, Hall, 1974

Plate 3 – Regional Fault Map, Jennings, 2010

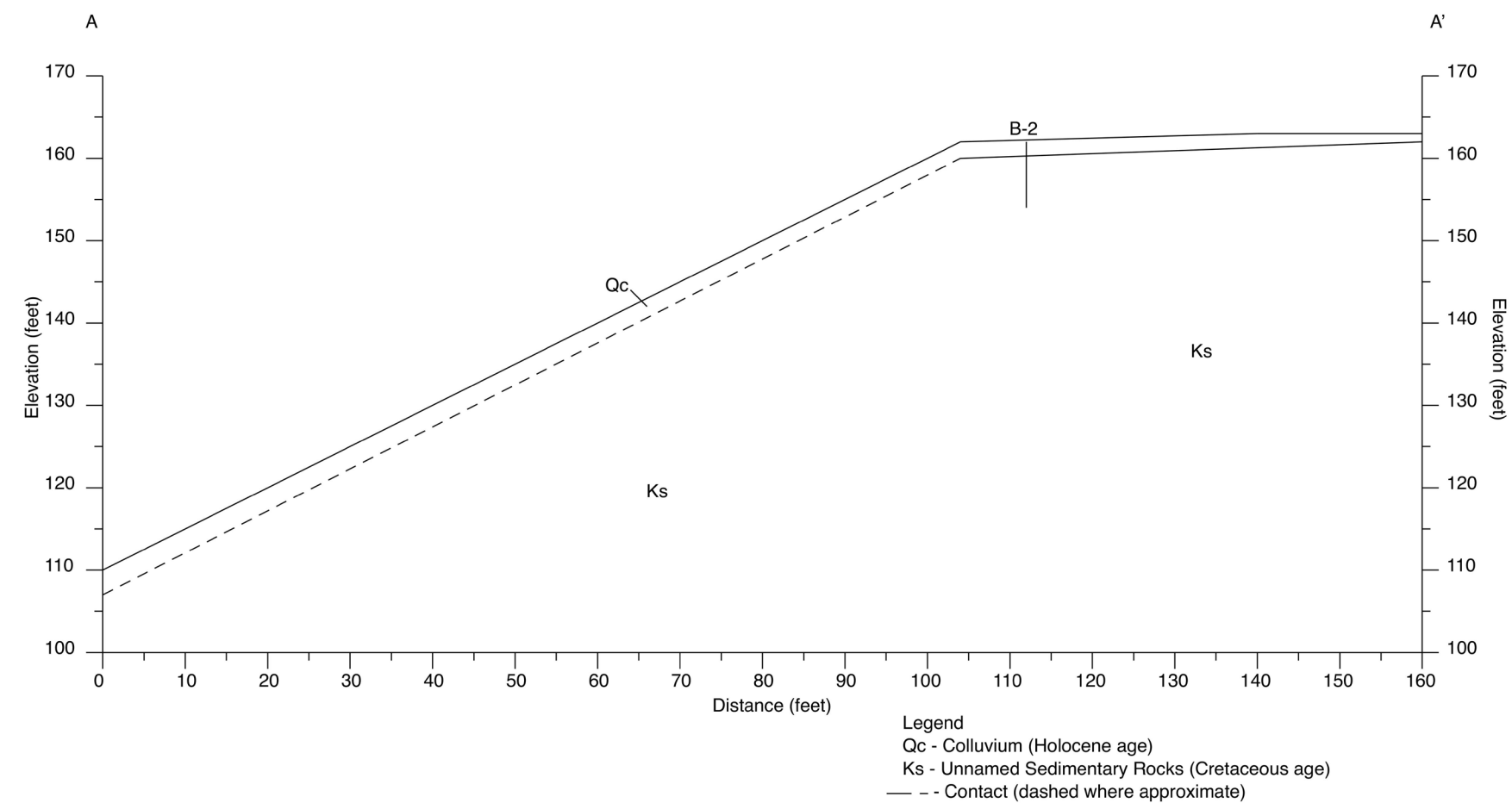
Plate 4 – Aerial Photograph

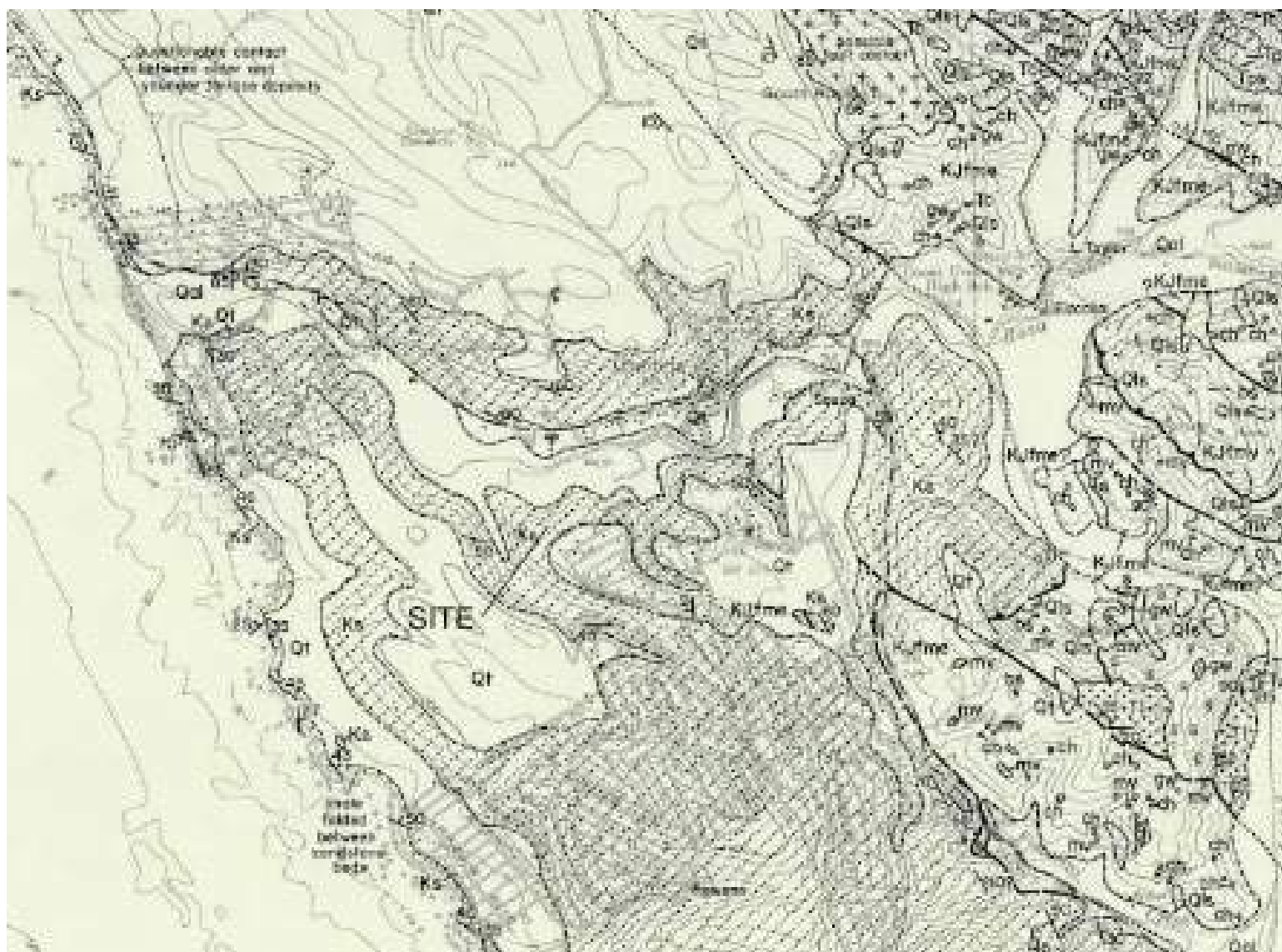


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(805) 543-8539

SITE ENGINEERING GEOLOGY MAP
SKYE STREET DRAINAGE AND ROADWAY, APN: 013-124-022
CAMBRIA AREA, SAN LUIS OBISPO COUNTY, CA

PLATE
1A
PROJECT NO.:
SL14118-2




GeoSolutions, Inc.

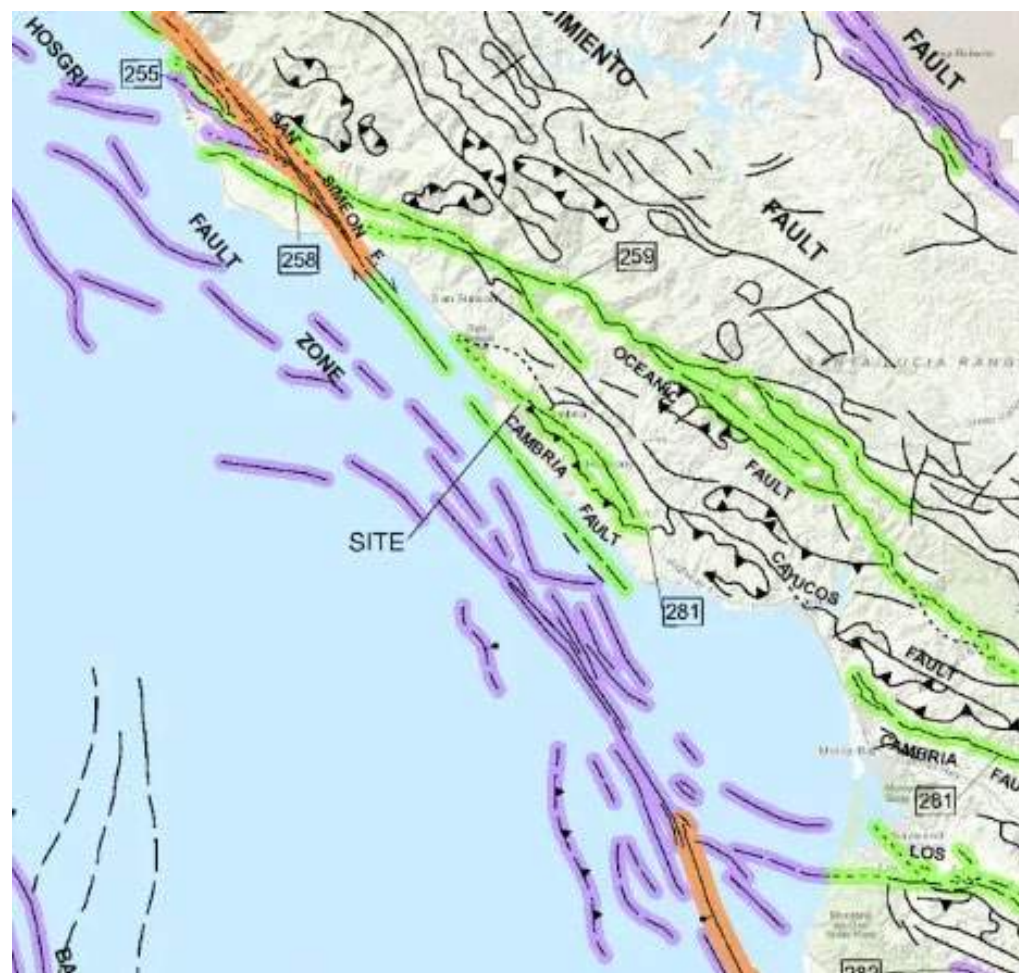
220 High Street
 San Luis Obispo, California 93401
 (805) 543-8539

REGIONAL GEOLOGY MAP (HALL, 1974)

SKYE STREET DRAINAGE AND ROADWAY, APN: 013-124-022
 CAMBRIA AREA, SAN LUIS OBISPO COUNTY, CA

PLATE
 2A

PROJECT NO:
 SL14118-2



FAULT CLASSIFICATION COLOR CODE (Indicating Recency of Movement)

Fault along which historic (last 200 years) displacement has occurred.



A triangle to the right or left of the date indicates termination point of observed surface displacement. Solid red triangle indicates known location of rupture termination point. Open black triangle indicates uncertain or estimated location of rupture termination point.



Date bracketed by triangles indicates local fault break.



No triangle by date indicates an intermediate point along faultbreak.



Fault that exhibits fault creep slippage. Hachures indicate linear extent of fault creep. Annotation (creep with leader) indicates representative locations where fault creep has been observed and recorded.



Square on fault indicates where fault creep slippage has occurred that has been triggered by an earthquake on some other fault. Date of causative earthquake indicated. Squares to right and left of date indicate terminal points between which triggered creep slippage has occurred (creep either continuous or intermittent between these end points).



Holocene fault displacement (during past 11,700 years) without historic record.



Late Quaternary fault displacement (during past 700,000 years).



Quaternary fault (age undifferentiated).



Pre-Quaternary fault (older than 1.6 million years) or fault without recognized Quaternary displacement.



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REGIONAL FAULT MAP (Jennings, 2010)

SKYE STREET DRAINAGE AND ROADWAY, APN: 013-124-022
CAMBRIA AREA, SAN LUIS OBISPO COUNTY, CA

PLATE

3

PROJECT NO:
SL14118-2

**GeoSolutions, Inc.**

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AERIAL PHOTOGRAPH (Google, 2022)

SKYE STREET DRAINAGE AND ROADWAY, APN: 013-124-022
CAMBRIA AREA, SAN LUIS OBISPO COUNTY, CA

PLATE

4

PROJECT NO:
SL14118-2

APPENDIX A

Boring Logs



Phone: 805-966-2200

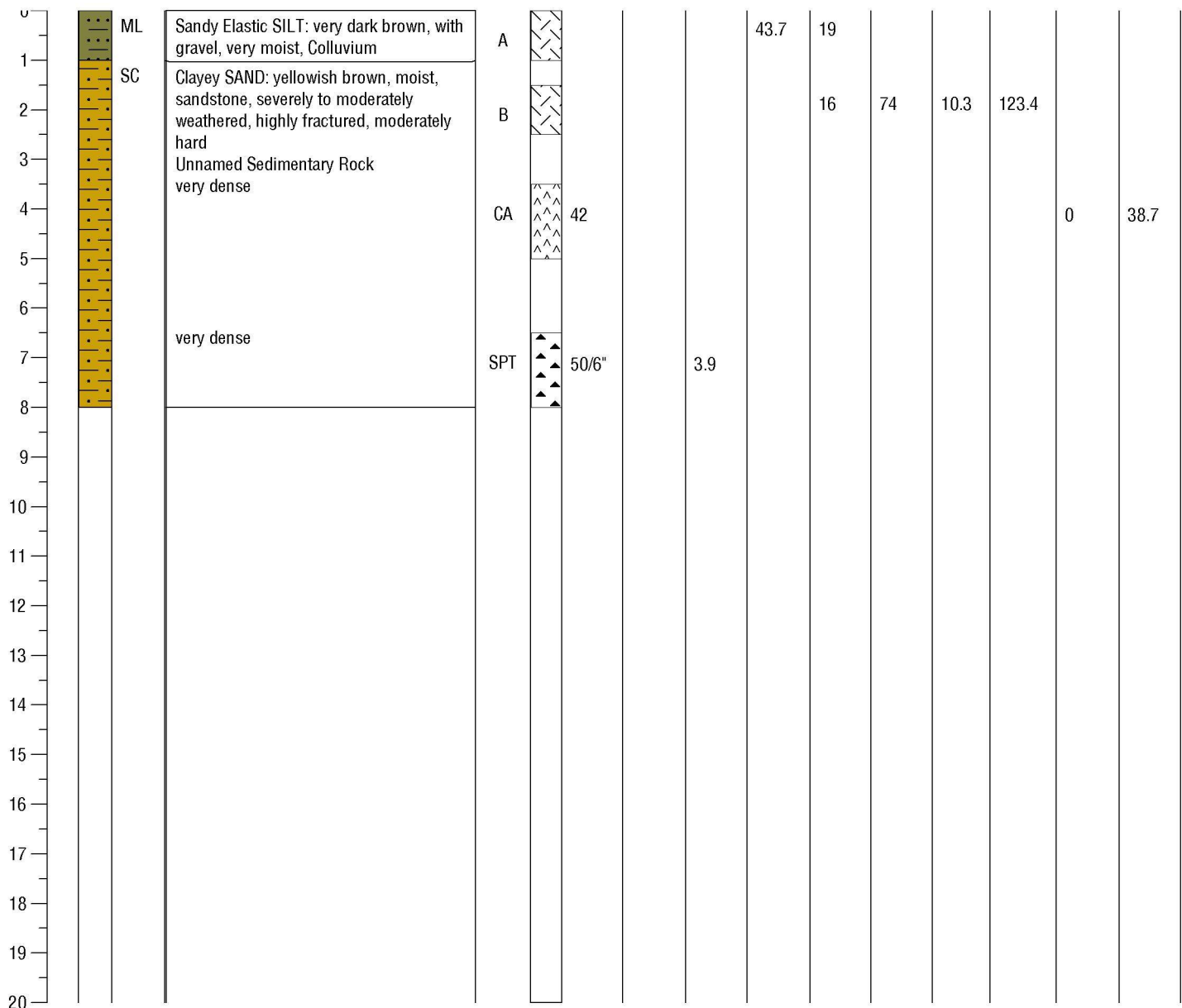
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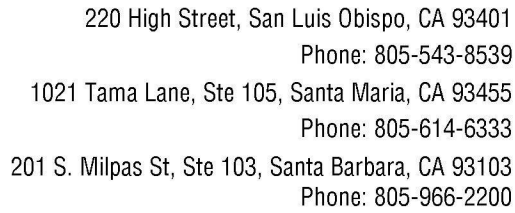
DRILLING INFORMATION

DRILL RIG:	Mobile B-24
HOLE DIAMETER:	6 Inches
SAMPLING METHOD:	SPT and CA
APPROX. ELEVATION:	Not Recorded

Page 1 of 1

DEPTH
LITHOLOGY
USCS
SOIL DESCRIPTION
SAMPLE ID
SAMPLERS TYPE
N (BLOWS / FT)
(N1) 60
MOISTURE CONTENT (%)
FINES CONTENT (%)
PLASTICITY INDEX (PI)
EXPANSION INDEX (EI)
OPTIMUM WATER CONTENT (%)
MAXIMUM DRY DENSITY (pcf)
COHESION, C (psf)
FRICTION ANGLE, (degrees)





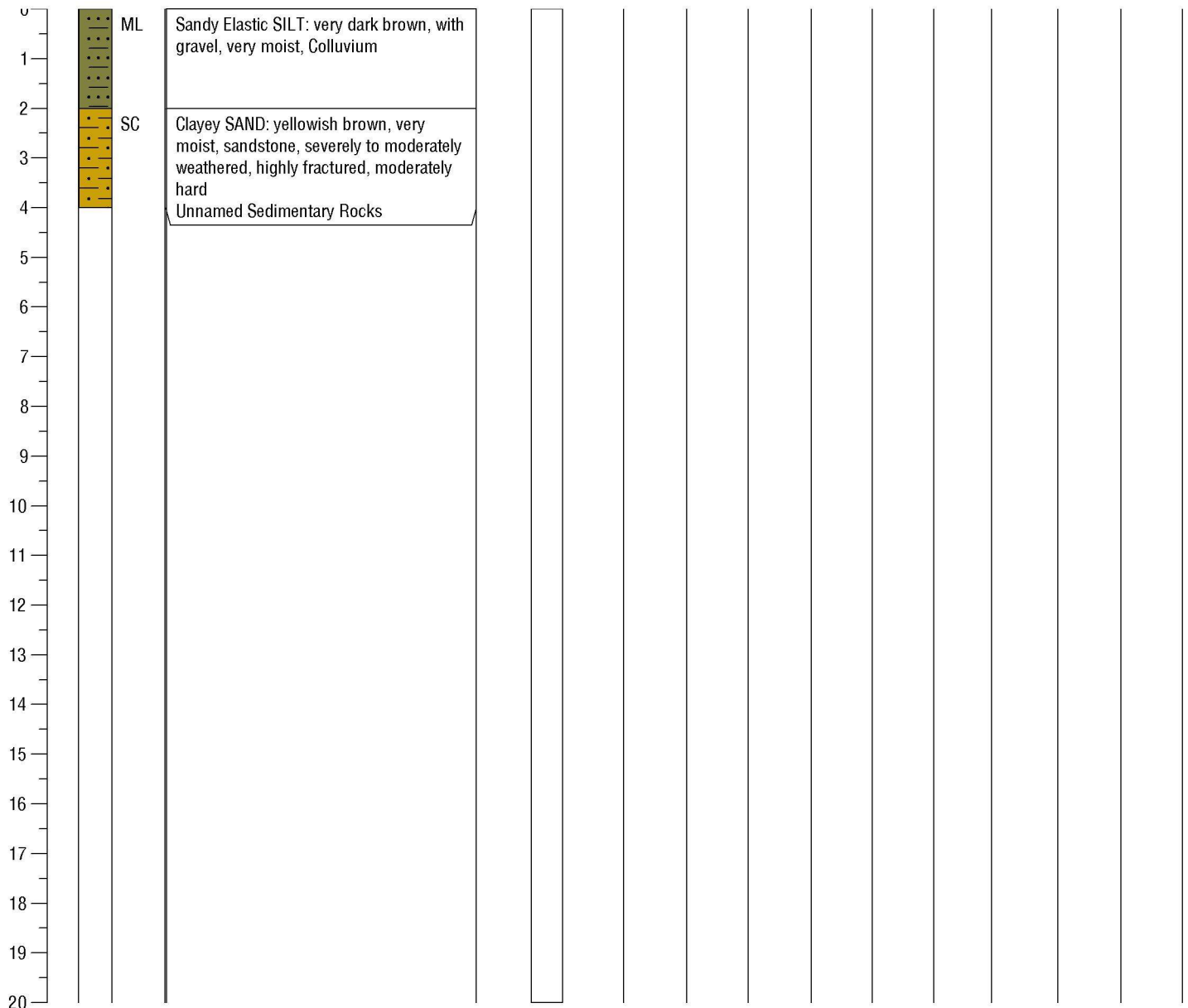
BORING NO. B-2
JOB NO. SL14118-1

DRILLING INFORMATION

DRILL RIG:	Hand Auger
HOLE DIAMETER:	4 Inches
SAMPLING METHOD:	None
APPROX. ELEVATION:	Not Recorded

Page 1 of 1

DEPTH
LITHOLOGY
USCS
SOIL DESCRIPTION
SAMPLE ID
SAMPLER TYPE
N (BLOWS / FT)
(N1) 60
MOISTURE CONTENT (%)
FINES CONTENT (%)
PLASTICITY INDEX (PI)
EXPANSION INDEX (EI)
OPTIMUM WATER CONTENT (%)
MAXIMUM DRY DENSITY (pcf)
COHESION, C (psf)
FRICTION ANGLE, (degrees)



**SOILS ENGINEERING REPORT
SKYE STREET DRAINAGE AND ROADWAY IMPROVEMENTS
APN: 013-124-022, CAMBRIA AREA
SAN LUIS OBISPO COUNTY, CALIFORNIA**

PROJECT SL14118-1

Prepared for

Pacific Pines HOA
PO Box 972
Cambria, California 93428

Prepared by

GEO SOLUTIONS, INC.
220 HIGH STREET
SAN LUIS OBISPO, CALIFORNIA 93401
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©

February 18, 2025

**DATE:**

February 18, 2025

PROJECT NUMBER:

SL14118-1

CLIENT:

Pacific Pines HOA
PO Box 972
Cambria, CA 93428

PROJECT NAME:

Skye Street Drainage and
Roadway Improvements
APN: 013-124-022
Cambria area
San Luis Obispo County,
California

SOILS ENGINEERING REPORT

Dear Pacific Pines HOA:

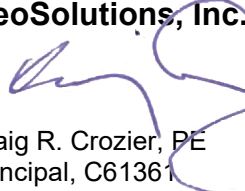
This Soils Engineering Report has been prepared for the proposed repair and improvements of the existing roadway and drainage improvements located off Skye Street, APN: 013-124-022, Cambria area of San Luis Obispo County, California. Geotechnically, the site is suitable for the proposed development provided the recommendations in this report for site preparation, earthwork, retaining walls, and pavement sections are incorporated into the design.

It is our understanding that improvements are planned for the existing roadway and drainage facilities due to previous damage from storm events. This report provides grading recommendations for general site preparation and construction of improvements to the roadway, including retaining walls and pavement sections. If cuts steeper than allowed by State of California Construction Safety Orders for "Excavations, Trenches, Earthwork" are proposed, a numerical slope stability analysis may be necessary for temporary construction slopes.

Thank you for the opportunity to have been of service in preparing this report. If you have any questions, please contact the undersigned at (805) 543-8539.

Sincerely,

GeoSolutions, Inc.


Kraig R. Crozier, PE
Principal, C61361



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TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
1.1	Site Description	1
1.2	Project Description	1
2.0	PURPOSE AND SCOPE	2
3.0	FIELD AND LABORATORY INVESTIGATION.....	2
4.0	SEISMIC DESIGN CONSIDERATIONS	4
5.0	LIQUEFACTION HAZARD ASSESSMENT	5
6.0	GENERAL SOIL-FOUNDATION DISCUSSION	5
7.0	CONCLUSIONS AND RECOMMENDATIONS.....	5
7.1	General Site Preparation	6
7.2	Exterior Concrete Flatwork	6
7.3	Retaining Walls	7
7.4	Preparation of Paved Areas.....	10
7.5	Pavement Design.....	10
8.0	ADDITIONAL GEOTECHNICAL SERVICES.....	11
9.0	LIMITATIONS AND UNIFORMITY OF CONDITIONS.....	12

REFERENCES

APPENDIX A

Field Investigation
Soil Classification Chart
Boring Logs

APPENDIX B

Laboratory Testing
Soil Test Reports

APPENDIX C

Seismic Hazard Analysis
Design Map Summary (SEAOC, 2019)

APPENDIX D

Preliminary Grading Specifications
Key and Bench with Backdrain

LIST OF FIGURES

Figure 1: Site Location Map	1
Figure 2: Site Plan.....	2
Figure 3: Field Investigation.....	3
Figure 4: Regional Geologic Map	3
Figure 5: Retaining Wall Detail	8
Figure 6: Retaining Wall Active and Passive Wedges.....	8

LIST OF TABLES

Table 1: Engineering Properties	4
Table 2: Seismic Design Parameters.....	5
Table 3: Retaining Wall Design Parameters.....	7
Table 4: Required Special Inspections and Tests of Soils.....	12

**SOILS ENGINEERING REPORT
SKYE STREET DRAINAGE AND ROADWAY IMPROVEMENTS
APN: 013-124-022, CAMBRIA AREA
SAN LUIS OBISPO COUNTY, CALIFORNIA**

PROJECT SL14118-1

1.0 INTRODUCTION

This report presents the results of the geotechnical investigation for the proposed repair and improvements of the existing drainage and roadway off Skye Street, APN: 013-124-022, Cambria area of San Luis Obispo County, California. See Figure 1: Site Location Map for the general location of the project area. Figure 1: Site Location Map was obtained from the website application GIS Surfrider 1.8 (Elfelt, 2016).

1.1 Site Description

The Skye Street repair area is located at 35.55875986 degrees north latitude and -121.09028964 degrees east longitude at a general elevation of 190 feet above mean sea level. The nearest intersection is where the proposed roadway intersects Skye Street approximately 250 feet to the southeast of the drainage site. The project property will hereafter be referred to as the "Site." See Figure 2: Site Plan for the general layout of the Site.

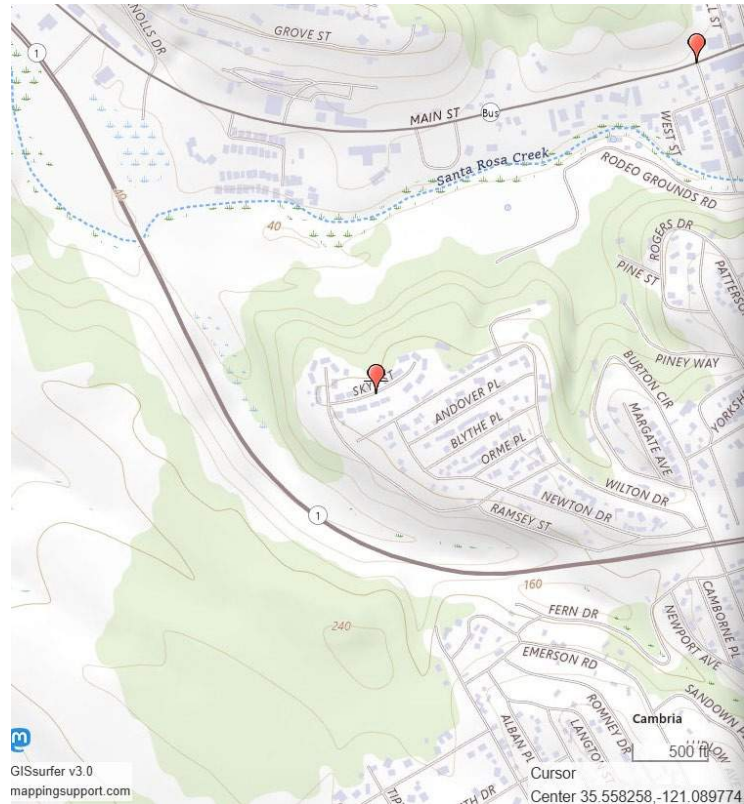
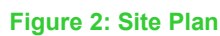


Figure 1: Site Location Map

The Site is situated on a hill side that drops to the north at an approximate gradient of 4 to 1 (horizontal to vertical). Surface drainage follows the topography to the north and flows towards Santa Rosa Creek Trail.

1.2 Project Description

The proposed improvements to the roadway and drainage facilities are anticipated to include grading operations to reconstruct sections of the existing roadway damaged from previous storm events, and construction of new drainage elements anticipated to include slope drains, drainage inlets and storm drain piping.



The purpose of this study was to explore and evaluate the surface and sub-surface soil conditions at the Site and to develop geotechnical information and design criteria. The scope of this study includes the following items:

- The field investigation was conducted on December 31, 2024 using a Mobile B-24 drill rig and hand auger equipment. Two six-inch diameter exploratory borings were advanced to a maximum depth of 8 feet below ground surface (bgs) at the approximate locations indicated on Figure 3: Field Investigation.

Sampling methods included the Standard Penetration Test utilizing a standard split-spoon sampler (SPT) without liners and a three-inch outside diameter Modified California (CA) split tube sampler with liners (ASTM D3550). The Mobile B-24 drill rig was equipped with a safety hammer, which has an efficiency of approximately 60 percent and was used to obtain test blow counts in the form of N-values.

Data gathered during the field investigation suggest that the soil materials at the Site consist of colluvial soil overlying competent formational material. The surface material at the Site generally consisted of very dark brown sandy elastic SILT (MH) with gravel encountered in a very moist condition. The sub-surface materials consisted of yellowish-brown clayey SAND (SC) with gravel encountered in a moist and dense to very dense condition.

Regional site geology was obtained from United States Geological Survey MapView internet application (USGS, 2013) which compiles existing geologic maps. Figure 4: Regional Geologic Map presents the geologic conditions in site vicinity as mapped on the *Geologic Map of the Cambria Quadrangle* (Dibblee, 2007). The majority of all underlying material at the Site was interpreted as Unnamed Sedimentary Rocks and will hereafter be referred to as competent formational material.

Groundwater was not encountered in either of the borings. It should be expected that groundwater elevations may vary seasonally and with irrigation practices.

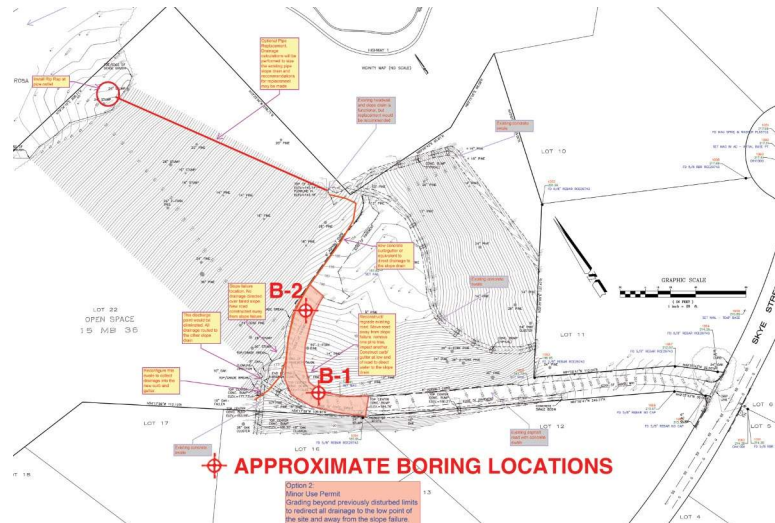


Figure 3: Field Investigation

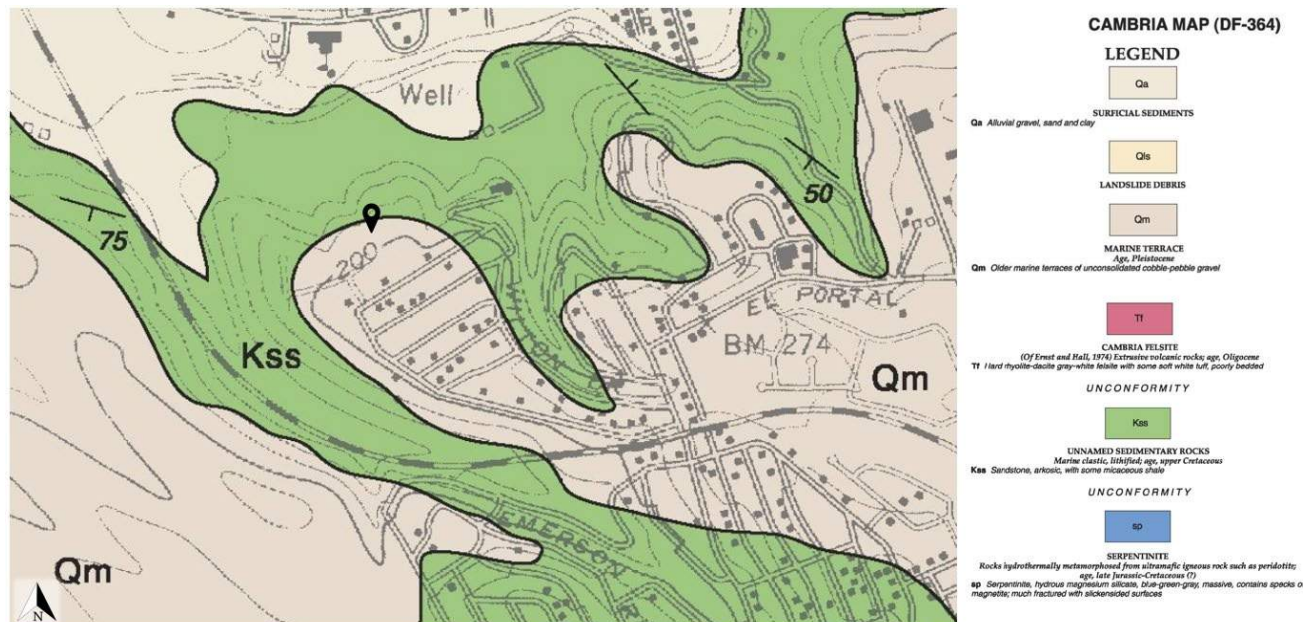


Figure 4: Regional Geologic Map

During the boring operations the soils encountered were continuously examined, visually classified, and sampled for general laboratory testing. A project engineer has reviewed a continuous log of the soils

encountered at the time of field investigation. See **Appendix A** for the Boring Logs from the field investigation.

Laboratory tests were performed on soil samples that were obtained from the Site during the field investigation. The results of these tests are listed below in Table 1: Engineering Properties. Laboratory data reports and detailed explanations of the laboratory tests performed during this investigation are provided in **Appendix B**.

Table 1: Engineering Properties

Sample Name	Sample Description	USCS Specification	Expansion Index	Expansion Potential	Maximum Dry Density, γ_d (pcf)	Optimum Moisture (%)	Angle of Internal Friction, ϕ (deg.)	Cohesion, c (psf)	Plasticity Index	Fines Content (%)
A	Very Dark Brown Sandy Elastic SILT	MH	-	-	-	-	-	-	19 Medium	-
B	Yellowish Brown Clayey SAND	SC	74	Medium	123.4	10.3	38.5	0	16 Low	43.7

4.0 SEISMIC DESIGN CONSIDERATIONS

Estimating the design ground motions at the Site depends on many factors including the distance from the Site to known active faults; the expected magnitude and rate of recurrence of seismic events produced on such faults; the source-to-site ground motion attenuation characteristics; and the Site soil profile characteristics. According to section 1613 of the 2022 CBC (CBSC, 2022), all structures and portions of structures should be designed to resist the effects of seismic loadings caused by earthquake ground motions in accordance with the ASCE 7: Minimum Design Loads for Buildings and Other Structures, hereafter referred to as ASCE 7-16 (ASCE, 2016). The Site soil profile classification (Site Class) can be determined by the average soil properties in the upper 100 feet of the Site profile and the criteria provided in Table 20.3-1 of ASCE 7-16.

Spectral response accelerations and peak ground accelerations, provided in this report were obtained using the computer-based Seismic Design Maps tool available from the Structural Engineers Association of California (SEAOC, 2019). This program utilizes the methods developed in ASCE 7-16 in conjunction with user-inputted Site location to calculate seismic design parameters and response spectra (both for period and displacement) for soil profile Site Classes A through E.

Site coordinates of 35.55875986 degrees north latitude and -121.09028964 4 degrees east longitude were used in the web-based probabilistic seismic hazard analysis (SEAOC, 2019). Based on the results from the in-situ tests performed during the field investigation, the Site was defined as **Site Class C**, "Very Dense Soil and Soft Rock" profile per ASCE7-16, Chapter 20. Relevant seismic design parameters obtained from the program are summarized in Table 2: Seismic Design Parameters.

Table 2: Seismic Design Parameters

Site Class	C “Very Dense Soil and Soft Rock”
Seismic Design Category	D
1-Second Period Design Spectral Response Acceleration, S_{D1}	0.437g
Short-Period Design Spectral Response Acceleration, S_{DS}	0.969g
Site Specific MCE Peak Ground Acceleration, PGA_M	0.655g

5.0 LIQUEFACTION HAZARD ASSESSMENT

Liquefaction occurs when saturated cohesionless soils lose shear strength due to earthquake shaking. Ground motion from an earthquake may induce cyclic reversals of shear stresses of large amplitude. Lateral and vertical movement of the soil mass combined with the loss of bearing strength can result from this phenomenon. Liquefaction potential of soil deposits during earthquake activity depends on soil type, void ratio, groundwater conditions, the duration of shaking, and confining pressures on the potentially liquefiable soil unit. Fine, poorly graded loose sand, shallow groundwater, high intensity earthquakes, and long duration of ground shaking are the principal factors leading to liquefaction.

As the underlying material encountered at the Site was weathered rock rather than soil, there is no potential for liquefaction, seismically induced settlement or differential settlement. Rock material differs from soil in that it cannot be saturated, cohesion is considered infinite and relative density is not applicable. Assuming the rock material encountered at the Site accurately represents these conditions, liquefaction potential does not apply.

6.0 GENERAL SOIL-FOUNDATION DISCUSSION

It is our understanding that improvements are planned for the existing roadway and drainage facilities due to previous damage from storm events. This report provides grading recommendations for general site preparation and construction of improvements to the roadway, including retaining walls and pavement sections. If cuts steeper than allowed by State of California Construction Safety Orders for “Excavations, Trenches, Earthwork” are proposed, a numerical slope stability analysis may be necessary for temporary construction slopes.

7.0 CONCLUSIONS AND RECOMMENDATIONS

The Site is suitable for the proposed development provided the recommendations presented in this report are incorporated into the project plans and specifications.

The primary geotechnical concerns at the Site are:

1. The presence of potentially expansive material. Influx of water from irrigation, leakage from the drainage improvements, or natural seepage could cause expansive soil problems. Foundations supported by expansive soils should be designed by a Structural Engineer in accordance with the 2022 California Building Code. Design of pavement sections should also include consideration for the potential effects of expansive soils.
2. The potential for differential settlement occurring between improvements supported by two soil materials having different settlement characteristics, such as native soil and engineered fill. Therefore, it is important that all of the proposed improvements are supported by equally competent uniform material in accordance with this report.

7.1 General Site Preparation

1. It is anticipated that site preparation for general fill areas and roadway areas will require processing of surface soils as engineered fill material. This will require over-excavation and re-compaction of the existing on-site soils.
2. In areas to receive fill, the existing surface soil shall be removed to a minimum depth of 12 inches below existing grade, exposing uniform, dense native material, as observed and approved by a representative of this firm. The exposed surfaces should be scarified to an additional depth of 6 inches; moisture conditioned to 3% over optimum moisture content, and compacted to a minimum relative density of 90 percent (ASTM D1557-12). The over-excavated materials, cleared of debris, organics, and oversize materials, may then be processed as engineered fill. Refer to **Appendix D** for more details on fill placement.
3. In areas where the existing grades are to be excavated or lowered more than 18 inches below the original ground surface, the exposed surfaces should be over-excavated an additional 12 inches, exposing uniform dense material. The exposed surfaces should be scarified to a depth of 6 inches; moisture conditioned to 3% over optimum moisture content, and compacted to a minimum relative density of 90 percent (ASTM D1557-12). The over-excavated materials, cleared of debris, organics and oversize material, may then be processed as engineered fill. Refer to **Appendix D** for more details on fill placement.
4. Site preparation for headwalls or retaining walls will require the removal of loose surface soils and debris, and processing of the removed soils as engineered fill. The existing surface soils shall be removed to a minimum depth of 12 inches below existing grade, 12 inches below bottom of foundations, to competent material, or two-thirds the depth of deepest fill; whichever is deeper. The limits of over-excavation should extend a minimum of 5 feet beyond the perimeter foundation, to property lines, or to existing improvements, whichever is least. The exposed surfaces should be scarified to an additional depth of 6 inches; moisture conditioned to 3% over optimum moisture content, and compacted to a minimum relative density of 90 percent (ASTM D1557-12). The over-excavated materials, cleared of debris, organics, and oversize materials, may then be processed as engineered fill. Refer to **Appendix D** for more details on fill placement.
5. If fill areas are constructed on slopes greater than 10-to-1 (horizontal-to-vertical), we recommend that benches be cut every four (vertical) feet as fill is placed. Each bench shall be a minimum of 10 feet wide with a minimum of two percent gradient into the slope. If fill areas are constructed on slopes greater than 5-to-1, we recommend that the toe of all areas to receive fill be keyed a minimum of 48 inches below lowest adjacent grade or 24 inches into underlying dense material, whichever is greater. Sub-drains shall be placed in the keyway and benches as needed, based on field conditions. See **Appendix D**, Detail A, Key and Bench with Backdrain for details on key and bench construction.

7.2 Exterior Concrete Flatwork

1. Due to the presence of expansive surface soils within the proposed development areas, there is a potential for considerable soil movement and distress to reinforced concrete flatwork if conventional measures are used, such as the placement of 4 to 6 inches of imported sand materials placed beneath concrete flatwork. Heaving and cracking are anticipated to occur. To reduce the potential for movement associated with expansive soils, we recommend the placement of a minimum of **18 inches of approved non-expansive import material placed as engineered fill beneath the flatwork.**

2. Minimum flatwork for conventional pedestrian areas should be a minimum of 4 inches thick and consist of No. 3 (#3) rebar spaced at 24 inches on-center each-way at or slightly above the center of the structural section.
3. Flatwork should be constructed with frequent joints to allow for movement due to fluctuations in temperature and moisture content in the adjacent soils. Flatwork at doorways, driveways, curbs and other areas where restraining the elevation of the flatwork is desired, should be doweled to the perimeter foundation by a minimum of No. 3 reinforcing steel dowels, spaced at a maximum distance of 24 inches on-center.
4. As an alternative, interlocking concrete pavers may be utilized for exterior improvements in lieu of reinforced concrete flatwork. Concrete pavers, when installed in accordance with manufacturers' recommendations and industry standards (ICPI), allow for a greater degree of soil movement as they are part of a flexible system. If interlocking concrete pavers are selected for use in the driveway area, the structural section should be underlain by a woven geotextile fabric, such as Mirafi HP570 or equivalent, to function as a separation layer and to provide additional support for vehicle tire loads.

7.3 Retaining Walls

1. Retaining walls should be designed to resist lateral pressures from adjacent soils and surcharge loads applied behind the walls. We recommend using the lateral pressures presented in Table 3: Retaining Wall Design Parameters and Figure 5: Retaining Wall Detail for the design of retaining walls at the Site. The Active Case may be used for the design of unrestrained retaining walls, and the At-Rest Case may be used for the design of restrained retaining walls.

Table 3: Retaining Wall Design Parameters

Lateral Pressure and Condition	Equivalent Fluid Pressure, pcf
Static, Active Case, Native ($\gamma'K_A$)	60
Static, At-Rest Case, Native ($\gamma'K_0$)	75
Static, Passive Case, Engineered Fill ($\gamma'K_P$)	250

2. The above values for equivalent fluid pressure are based on retaining walls having level retained surfaces, having an approximately vertical surface against the retained material, and retaining granular backfill material or engineered fill composed of native soil within the active wedge. See Figure 5: Retaining Wall Detail and Figure 6: Retaining Wall Active and Passive Wedges for a description of the location of the active wedge behind a retaining wall.

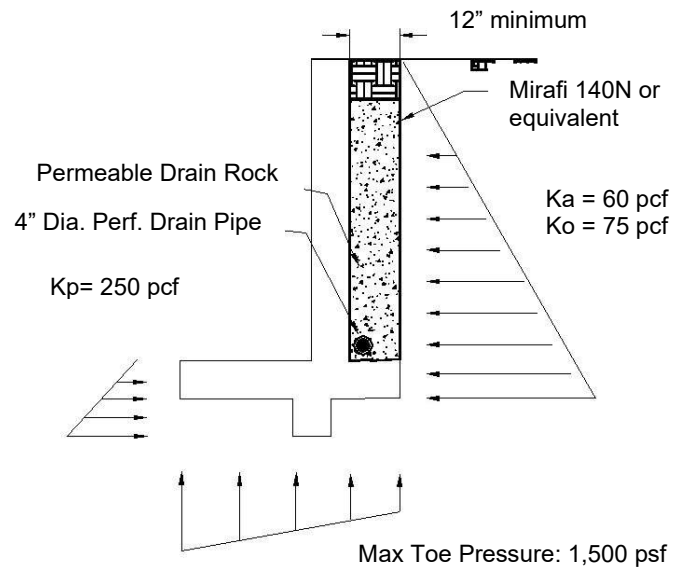


Figure 5: Retaining Wall Detail

3. Proposed retaining walls having a retained surface that slopes upward from the top of the wall should be designed for an additional equivalent fluid pressure of 1 pcf for the active case and 1.5 pcf for the at-rest case, for every degree of slope inclination.
4. We recommend that the proposed retaining walls at the Site have an approximately vertical surface against the retained material. If the proposed retaining walls are to have sloped surfaces against the retained material, the project designers should contact the Soils Engineer to determine the appropriate lateral earth pressure values for retaining walls located at the Site.

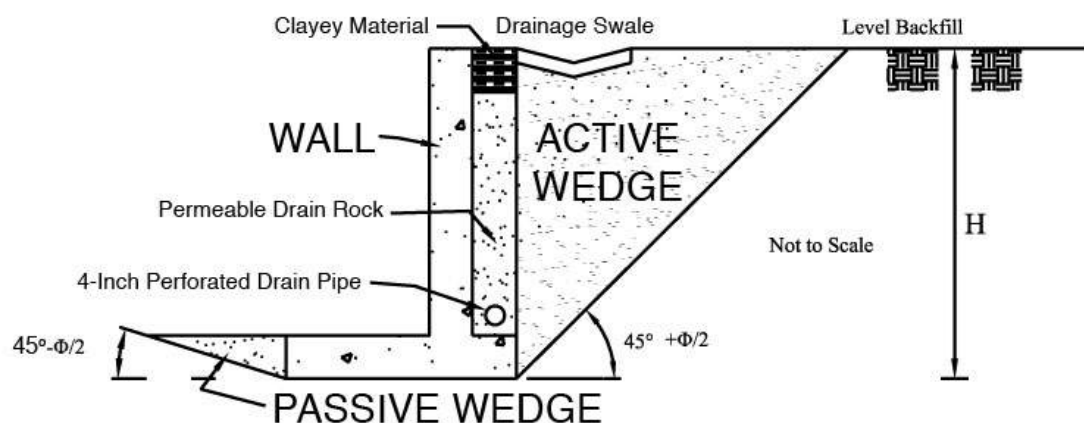


Figure 6: Retaining Wall Active and Passive Wedges

5. Retaining wall foundations should be founded a minimum of 24 inches below lowest adjacent grade in engineered fill as observed and approved by a representative of GeoSolutions, Inc. A coefficient of friction of **0.30** may be used between engineered fill

and concrete footings. Project designers may use a maximum toe pressure of **1,500 psf** for the design of retaining wall footings founded in engineered fill.

6. For earthquake conditions, retaining walls greater than 6 feet in height should be designed to resist an additional seismic lateral soil pressure of **18 pcf** equivalent fluid pressure for unrestrained walls (active condition). The pressure resultant force from earthquake loading should be assumed to act a distance of $\frac{1}{3}H$ above the base of the retaining wall, where H is the height of the retaining wall. Seismic active lateral earth pressure values were determined using the simplified dynamic lateral force component (SEAOC 2010) utilizing the design peak ground acceleration, PGA_M , discussed in Section 4.0 ($PGA_M = 0.655g$). The dynamic increment in lateral earth pressure due to earthquakes should be considered during the design of retaining walls at the Site. Based on research presented by Dr. Marshall Lew (Lew et al., 2010), lateral pressures associated with seismic forces should not be applied to restrained walls (at-rest condition).
7. Seismically induced forces on retaining walls are considered to be short-term loadings. Therefore, when performing seismic analyses for the design of retaining wall footings, we recommend that the allowable bearing pressure and the passive pressure acting against the sides of retaining wall footings be increased by a factor of one-third.
8. In addition to the static lateral soil pressure values reported in Table 5: Retaining Wall Design Parameters, the retaining walls at the Site should be designed to support any design live load, such as from vehicle and construction surcharges, etc., to be supported by the wall backfill. If construction vehicles are required to operate within 10 feet of a retaining wall, supplemental pressures will be induced and should be taken into account in the design of the retaining wall.
9. The recommended lateral earth pressure values are based on the assumption that sufficient sub-surface drainage will be provided behind the walls to prevent the build-up of hydrostatic pressure. To achieve this we recommend that a granular filter material be placed behind all proposed walls. The blanket of granular filter material should be a minimum of 12 inches thick and should extend from the bottom of the wall to 12 inches from the ground surface. The top 12 inches should consist of moisture conditioned, compacted, clayey soil. Neither spread nor wall footings should be founded in the granular filter material used as backfill.
10. A 4-inch diameter perforated or slotted drainpipe (ASTM D1785 PVC) should be installed near the bottom of the filter blanket with perforations facing down. The drainpipe should be underlain by at least 4 inches of filter type material and should daylight to discharge in suitably projected outlets with adequate gradients. The filter material should consist of a clean free-draining aggregate, such as a coarse aggregate mix. If the retaining wall is part of a structural foundation, the drainpipe must be placed below finished slab sub-grade elevation.
11. The filter material should be encapsulated in a permeable geotextile fabric. A suitable permeable geotextile fabric, such as non-woven needle-punched Mirafi 140N or equal, may be utilized to encapsulate the retaining wall drain material and should conform to Caltrans Standard Specification 88-1.03 for underdrains.
12. For hydrostatic loading conditions (i.e. no free drainage behind retaining wall), an additional loading of 45-pcf equivalent fluid weight should be added to the active and at-rest lateral earth pressures. If it is necessary to design retaining structures for submerged conditions, the allowed bearing and passive pressures should be reduced by 50 percent. In addition, soil friction beneath the base of the foundations should be neglected.

13. Precautions should be taken to ensure that heavy compaction equipment is not used adjacent to walls, so as to prevent undue pressure against, and movement of the walls.
14. The use of water-stops/impermeable barriers should be used for any basement construction, and for building walls that retain earth. Dampproofing and waterproofing shall meet the minimum standards of Section 1805 of the 2022 California Building Code.

7.4 Preparation of Paved Areas

1. Pavement areas should be excavated to approximate sub-grade elevation or to competent material; whichever is deeper. The exposed surface should be scarified an additional depth of 12 inches, moisture conditioned to slightly above optimum moisture content, and compacted to a minimum relative density of 95 percent (ASTM D1557-12 test method).
2. The top 12 inches of sub-grade soil under all pavement sections should be compacted to a minimum relative density of 95 percent based on the ASTM D1557-12 test method at slightly above optimum.
3. Sub-grade soils should not be allowed to dry out or have excessive construction traffic between moisture conditioning and compaction, and placement of the pavement structural section.
4. Due to the expansive potential of the soils at the Site, the base courses beneath unreinforced pavement sections may fail, causing cracking of the pavement surfaces, as the sub-grade materials move laterally during expansive shrink-swell cycles.
5. Therefore, in order to minimize the potential for the failure of pavement sections at the Site, GeoSolutions, Inc. recommends that a Type 2 laterally-reinforcing geotextile grid, such as Tensar BX1200, Syntec SBX12, ADS BX124GG, Mirafi BXG120 or equivalent, be installed between the prepared sub-grade and base materials at the Site. IN accordance with the Caltrans "Subgrade Enhancement Geosynthetic Design and Construction Guide," an **R-Value of 25** may be used in pavement structural section design over subgrade improved with Type 2 laterally-reinforcing geotextile grid.
6. GeoSolutions, Inc. should be contacted prior to the design and construction of pavement sections at the Site in order to assist in the selection of an appropriate laterally-reinforcing biaxial geogrid product and to provide recommendations regarding the procedures for the installation of geogrid products at the Site.

7.5 Pavement Design

1. All pavement construction and materials used should conform to Sections 25, 26 and 39 of the latest edition of the State of California Department of Transportation Standard Specifications (State of California, 1999).
2. As indicated previously in Section 7.4, the top 12 inches of sub-grade soil under pavement sections should be compacted to a minimum relative density of 95 percent based on the ASTM D1557-12 test method at slightly above optimum moisture content. Aggregate bases and sub-bases should also be compacted to a minimum relative density of 95 percent based on the aforementioned test method.
3. A minimum of six inches of Class II Aggregate Base is recommended for all pavement sections. All pavement sections should be crowned for good drainage.

4. In order to minimize the potential for cracking of the pavement surfaces at the Site due to lateral movement of the base courses during expansive shrink-swell cycles of the sub-grade materials, GeoSolutions, Inc. recommends that a Type 2 laterally-reinforcing geotextile grid, such as Tensar BX1200, Syntec SBX12, ADS BX124GG, Mirafi BXG120 or equivalent, be installed between the prepared sub-grade and base materials at the Site. In accordance with the Caltrans "Subgrade Enhancement Geosynthetic Design and Construction Guide," an **R-Value of 25** may be used in pavement structural section design over subgrade improved with Type 2 laterally-reinforcing geotextile grid
5. GeoSolutions, Inc. should be contacted prior to the design and construction of the pavement sections to provide recommendations regarding the selection of and installation of an appropriate laterally-reinforcing biaxial geogrid product.
6. All paving construction and materials used should conform to applicable sections of the latest edition of the State of California Department of Transportation Standard Specifications.
7. As indicated previously, the top 12 inches of sub-grade soil under asphaltic concrete pavement sections should be compacted to a minimum relative density of 95 percent based on the ASTM D1557-12 test method at slightly above optimum moisture content. Aggregate bases and sub-bases should also be compacted to a minimum relative density of 95 percent based on the aforementioned test method.
8. All pavement sections should be crowned for good drainage. All pavement construction and materials used should conform to Sections 25, 26 and 39 of the latest edition of the State of California Department of Transportation Standard Specifications.

8.0 ADDITIONAL GEOTECHNICAL SERVICES

The recommendations contained in this report are based on a limited number of borings and on the continuity of the sub-surface conditions encountered. GeoSolutions, Inc. assumes that it will be retained to provide additional services during future phases of the proposed project. These services would be provided by GeoSolutions, Inc. as required by the County of San Luis Obispo, the 2022 CBC, and/or industry standard practices. These services would be in addition to those included in this report and would include, but are not limited to, the following services:

1. Consultation during plan development.
2. Plan review of grading and foundation documents prior to construction and a report certifying that the reviewed plans are in conformance with our geotechnical recommendations.
3. Consultation during selection and placement of a laterally-reinforcing biaxial geogrid product.
4. Construction inspections and testing, as required, during all grading and excavating operations beginning with the stripping of vegetation at the Site, at which time a site meeting or pre-job meeting would be appropriate.
5. Special inspection services during grading operations per Chapter 17 of the 2022 CBC.
6. Preparation of construction reports certifying that building pad preparation and foundation excavations are in conformance with our geotechnical recommendations.
7. Preparation of special inspection reports as required during construction.

8. In addition to the construction inspections listed above, section 1705.6 of the 2022 CBC (CBC, 2022) requires the following inspections by the Soils Engineer for controlled fill thicknesses greater than 12 inches as shown in Table 4: Required Special Inspections and Tests of Soils:

Table 4: Required Special Inspections and Tests of Soils

Verification and Inspection Task	Continuous During Task Listed	Periodically During Task Listed
1. Verify materials below footings are adequate to achieve the design bearing capacity.	-	X
2. Verify excavations are extended to proper depth and have reached proper material.	-	X
3. Perform classification and testing of controlled fill materials.	-	X
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of controlled fill.	X	-
5. Prior to placement of controlled fill, observe sub-grade and verify that site has been prepared properly.	-	X

9.0 LIMITATIONS AND UNIFORMITY OF CONDITIONS

- The recommendations of this report are based upon the assumption that the soil conditions do not deviate from those disclosed during our study. Should any variations or undesirable conditions be encountered during the development of the Site, GeoSolutions, Inc. should be notified immediately and GeoSolutions, Inc. will provide supplemental recommendations as dictated by the field conditions.
- This report is issued with the understanding that it is the responsibility of the owner or his/her representative to ensure that the information and recommendations contained herein are brought to the attention of the architect and engineer for the project, and incorporated into the project plans and specifications. The owner or his/her representative is responsible to ensure that the necessary steps are taken to see that the contractor and subcontractors carry out such recommendations in the field.
- As of the present date, the findings of this report are valid for the property studied. With the passage of time, changes in the conditions of a property can occur whether they are due to natural processes or to the works of man on this or adjacent properties. Therefore, this report should not be relied upon after a period of 3 years without our review nor should it be used or is it applicable for any properties other than those studied. However many events such as floods, earthquakes, grading of the adjacent properties and building and municipal code changes could render sections of this report invalid in less than 3 years.

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APPENDIX A

Field Investigation

Soil Classification Chart

Boring Logs

FIELD INVESTIGATION

The field investigation was conducted on December 31, 2024 using a Mobile B-24 drill rig and hand auger equipment. The surface and sub-surface conditions were studied by advancing two exploratory borings. This exploration was conducted in accordance with presently accepted geotechnical engineering procedures consistent with the scope of the services authorized to GeoSolutions, Inc.

The Mobile B-24 drill rig with a six-inch diameter solid-stem continuous flight auger advanced two exploratory borings near the approximate locations indicated on Figure 3: Field Investigation. The drilling and field observation were performed under the direction of the project engineer. A representative of GeoSolutions, Inc. maintained a log of the soil conditions and obtained soil samples suitable for laboratory testing. The soils were classified in accordance with the Unified Soil Classification System. See the Soil Classification Chart in this appendix.

Standard Penetration Tests with a two-inch outside diameter standard split tube sampler (SPT) without liners (ASTM D1586) and a three-inch outside diameter Modified California (CA) split tube sampler with liners (ASTM D3550) were performed to obtain field indication of the in-situ density of the soil and to allow visual observation of at least a portion of the soil column. Soil samples obtained with the split spoon sampler are retained for further observation and testing. The split spoon samples are driven by a 140-pound hammer free falling 30 inches. The sampler is initially seated six inches to penetrate any loose cuttings and is then driven an additional 12 inches with the results recorded in the boring logs as N-values, which are the number of blows per foot required to advance the sample the final 12 inches.

The CA sampler is a larger diameter sampler than the standard (SPT) sampler with a two-inch outside diameter and provides additional material for normal geotechnical testing such as in-situ shear and consolidation testing. Either sampler may be used in the field investigation, but the N-values obtained from using the CA sampler will be greater than that of the SPT. The N-values for samples collected using the CA can be roughly correlated to SPT N-values using a conversion factor that may vary from about 0.5 to 0.7. A commonly used conversion factor is 0.67 ($2/3$). More information about standardized samplers can be found in ASTM D1586 and ASTM D3550.

Disturbed bulk samples are obtained from cuttings developed during boring operations. The bulk samples are selected for classification and testing purposes and may represent a mixture of soils within the noted depths. Recovered samples are placed in transport containers and returned to the laboratory for further classification and testing.

Logs of the borings showing the approximate depths and descriptions of the encountered soils, applicable geologic structures, recorded N-values, and the results of laboratory tests are presented in this appendix. The logs represent the interpretation of field logs and field tests as well as the interpolation of soil conditions between samples. The results of laboratory observations and tests are also included in the boring logs. The stratification lines recorded in the boring logs represent the approximate boundaries between the surface soil types. However, the actual transition between soil types may be gradual or varied.

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS		LABORATORY CLASSIFICATION CRITERIA		GROUP SYMBOLS	PRIMARY DIVISIONS
COARSE GRAINED SOILS More than 50% retained on No. 200 sieve	GRAVELS	Clean gravels (less than 5% fines*)	C_u greater than 4 and C_z between 1 and 3	GW	Well-graded gravels and gravel-sand mixtures, little or no fines
			Not meeting both criteria for GW	GP	Poorly graded gravels and gravel-sand mixtures, little or no fines
		Gravel with fines (more than 12% fines*)	Atterberg limits plot below "A" line or plasticity index less than 4	GM	Silty gravels, gravel-sand-silt mixtures
			Atterberg limits plot below "A" line and plasticity index greater than 7	GC	Clayey gravels, gravel-sand-clay mixtures
	SANDS	Clean sand (less than 5% fines*)	C_u greater than 6 and C_z between 1 and 3	SW	Well graded sands, gravelly sands, little or no fines
			Not meeting both criteria for SW	SP	Poorly graded sands and gravelly sands, little or no fines
		Sand with fines (more than 12% fines*)	Atterberg limits plot below "A" line or plasticity index less than 4	SM	Silty sands, sand-silt mixtures
			Atterberg limits plot above "A" line and plasticity index greater than 7	SC	Clayey sands, sand-clay mixtures
FINE GRAINED SOILS 50% or more passes No. 200 sieve	SILTS AND CLAYS (liquid limit less than 50)	Inorganic soil	$PI < 4$ or plots below "A"-line	ML	Inorganic silts, very fine sands, rock flour, silty or clayey fine sands
		Inorganic soil	$PI > 7$ and plots on or above "A" line**	CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
		Organic Soil	LL (oven dried)/LL (not dried) < 0.75	OL	Organic silts and organic silty clays of low plasticity
	SILTS AND CLAYS (liquid limit 50 or more)	Inorganic soil	Plots below "A" line	MH	Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts
		Inorganic soil	Plots on or above "A" line	CH	Inorganic clays of high plasticity, fat clays
		Organic Soil	LL (oven dried)/LL (not dried) < 0.75	OH	Organic silts and organic clays of high plasticity
Peat	Highly Organic	Primarily organic matter, dark in color, and organic odor		PT	Peat, muck and other highly organic soils

*Fines are those soil particles that pass the No. 200 sieve. For gravels and sands with between 5 and 12% fines, use of dual symbols is required (I.e. GW-GM, GW-GC, GP-GM, or GP-GC).

**If the plasticity index is between 4 and 7 and it plots above the "A" line, then dual symbols (I.e. CL-ML) are required. the "A" line, then dual symbols (I.e. CL-ML) are required.

CONSISTENCY

CLAYS AND PLASTIC SILTS	STRENGTH TON/SQ. FT ++	BLOWS/ FOOT +
VERY SOFT	0 - 1/4	0 - 2
SOFT	1/4 - 1/2	2 - 4
FIRM	1/2 - 1	4 - 8
STIFF	1 - 2	8 - 16
VERY STIFF	2 - 4	16 - 32
HARD	Over 4	Over 32

RELATIVE DENSITY

SANDS, GRAVELS AND NON-PLASTIC SILTS	BLOWS/ FOOT +
VERY LOOSE	0 - 4
LOOSE	4 - 10
MEDIUM DENSE	10 - 30
DENSE	30 - 50
VERY DENSE	Over 50

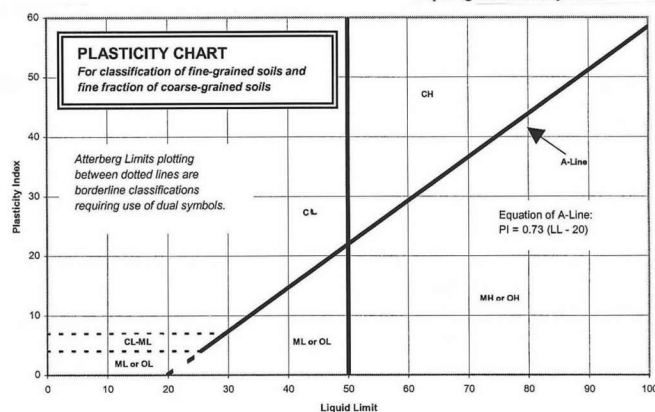
+ Number of blows of a 140-pound hammer falling 30-inches to drive a 2-inch O.D. (1-3/8-inch I.D.) split spoon (ASTM D1586).

++ Unconfined compressive strength in tons/sq.ft. as determined by laboratory testing or approximated by the standard penetration test (ASTM D1586), pocket penetrometer, torvane, or visual observation.

CLASSIFICATIONS BASED ON PERCENTAGE OF FINES

Less than 5%, Pass No. 200 (75mm)sieve)
More than 12% Pass N. 200 (75 mm) sieve
5%-12% Pass No. 200 (75 mm) sieve

GW, GP, SW, SP
GM, GC, SM, SC
Borderline Classification
requiring use of dual symbols



Drilling Notes:

1. Sampling and blow counts
 - a. California Modified – number of blows per foot of a 140 pound hammer falling 30 inches
 - b. Standard Penetration Test – number of blows per 12 inches of a 140 pound hammer falling 30 inches

Types of Samples:
X – Sample
SPT - Standard Penetration
CA - California Modified
N - Nuclear Gauge
PO – Pocket Penetrometer (tons/sq.ft.)



Phone: 805-966-2200

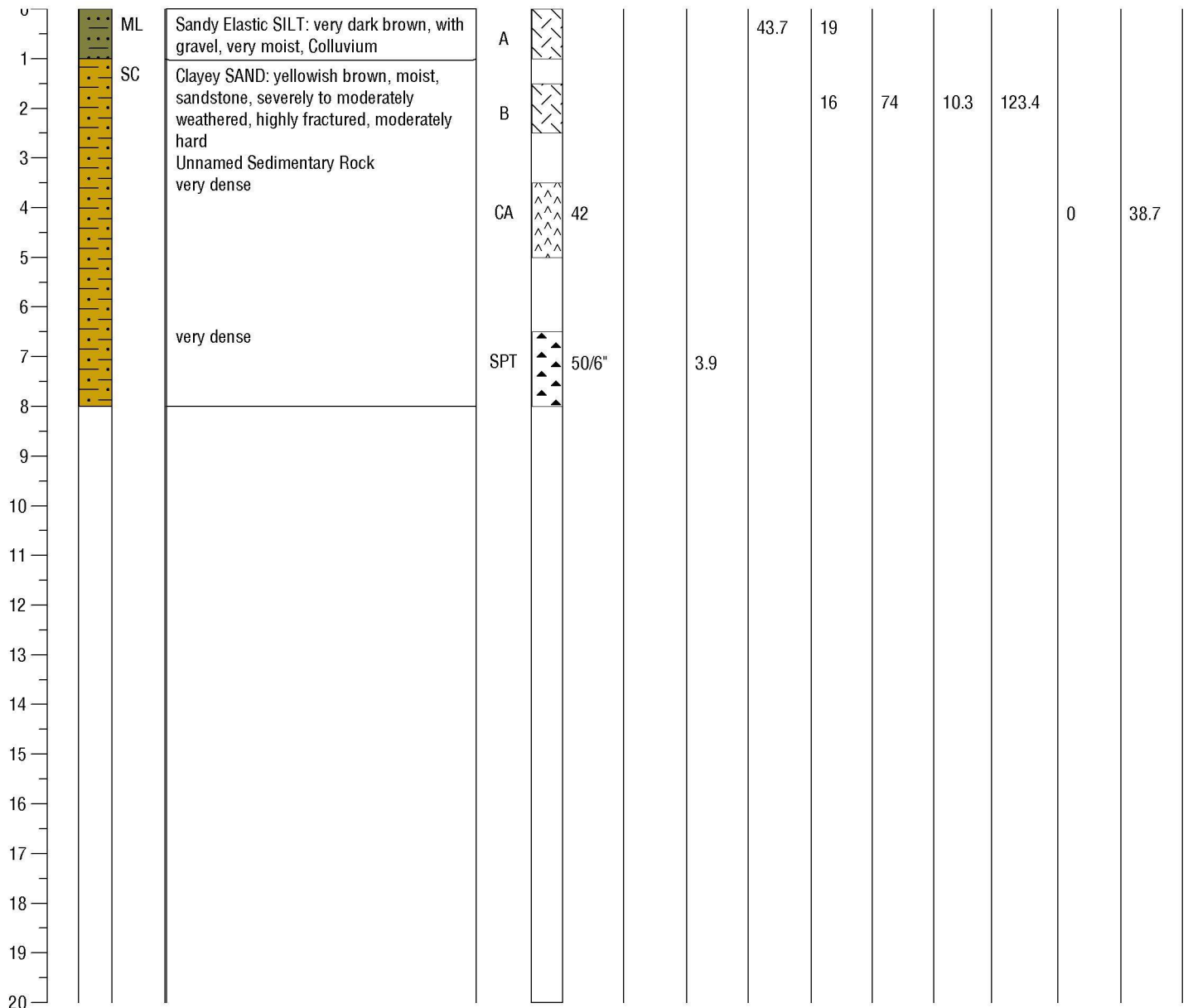
JOB NO. SL14118-1

DRILLING INFORMATION

DRILL RIG:	Mobile B-24
HOLE DIAMETER:	6 Inches
SAMPLING METHOD:	SPT and CA
APPROX. ELEVATION:	Not Recorded

Page 1 of 1

DEPTH
LITHOLOGY
USCS
SOIL DESCRIPTION
SAMPLE ID
SAMPLER TYPE
N (BLOWS / FT)
(N1) 60
MOISTURE CONTENT (%)
FINES CONTENT (%)
PLASTICITY INDEX (PI)
EXPANSION INDEX (EI)
OPTIMUM WATER CONTENT (%)
MAXIMUM DRY DENSITY (pcf)
COHESION, C (psf)
FRICTION ANGLE, (degrees)





Phone: 805-966-2200

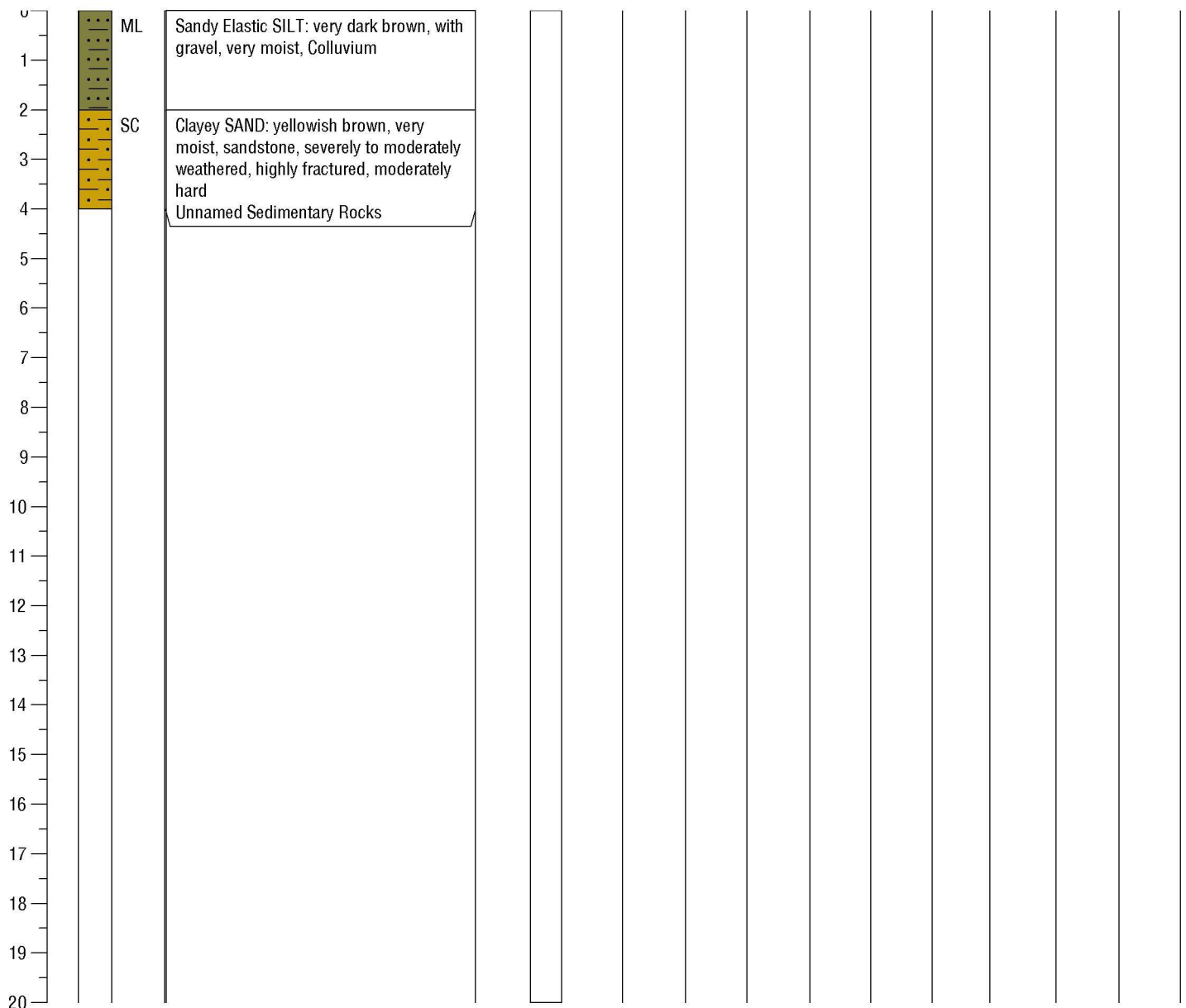
JOB NO. SL14118-1

DRILLING INFORMATION

DRILL RIG:	Hand Auger
HOLE DIAMETER:	4 Inches
SAMPLING METHOD:	None
APPROX. ELEVATION:	Not Recorded

Page 1 of 1

DEPTH
LITHOLOGY
USCS
SOIL DESCRIPTION
SAMPLE ID
SAMPLERS TYPE
N (BLOWS / FT)
(N1) 60
MOISTURE CONTENT (%)
FINES CONTENT (%)
PLASTICITY INDEX (PI)
EXPANSION INDEX (EI)
OPTIMUM WATER CONTENT (%)
MAXIMUM DRY DENSITY (pcf)
COHESION, C (psf)
FRICTION ANGLE, (degrees)



APPENDIX B

Laboratory Testing

Soil Test Reports

LABORATORY TESTING

This appendix includes a discussion of the test procedures and the laboratory test results performed as part of this investigation. The purpose of the laboratory testing is to assess the engineering properties of the soil materials at the Site. The laboratory tests are performed using the currently accepted test methods, when applicable, of the American Society for Testing and Materials (ASTM).

Undisturbed and disturbed bulk samples used in the laboratory tests are obtained from various locations during the course of the field exploration, as discussed in **Appendix A** of this report. Each sample is identified by sample letter and depth. The Unified Soils Classification System is used to classify soils according to their engineering properties. The various laboratory tests performed are described below:

Expansion Index of Soils (ASTM D4829) is conducted in accordance with the ASTM test method and the California Building Code Standard, and are performed on representative bulk and undisturbed soil samples. The purpose of this test is to evaluate expansion potential of the site soils due to fluctuations in moisture content. The sample specimens are placed in a consolidometer, surcharged under a 144-psf vertical confining pressure, and then inundated with water. The amount of expansion is recorded over a 24-hour period with a dial indicator. The expansion index is calculated by determining the difference between final and initial height of the specimen divided by the initial height.

Laboratory Compaction Characteristics of Soil Using Modified Effort (ASTM D1557) is performed to determine the relationship between the moisture content and density of soils and soil-aggregate mixtures when compacted in a standard size mold with a 10-lbf hammer from a height of 18 inches. The test is performed on a representative bulk sample of bearing soil near the estimated footing depth. The procedure is repeated on the same soil sample at various moisture contents sufficient to establish a relationship between the maximum dry unit weight and the optimum water content for the soil. The data, when plotted, represents a curvilinear relationship known as the moisture density relations curve. The values of optimum water content and modified maximum dry unit weight can be determined from the plotted curve.

Liquid Limit, Plastic Limit, and Plasticity Index of Soils (ASTM D4318) are the water contents at certain limiting or critical stages in cohesive soil behavior. The liquid limit (LL or W_L) is the lower limit of viscous flow, the plastic limit (PL or W_P) is the lower limit of the plastic stage of clay and plastic index (PI or I_P) is a range of water content where the soil is plastic. The Atterberg Limits are performed on samples that have been screened to remove any material retained on a No. 40 sieve. The liquid limit is determined by performing trials in which a portion of the sample is spread in a brass cup, divided in two by a grooving tool, and then allowed to flow together from the shocks caused by repeatedly dropping the cup in a standard mechanical device. To determine the Plastic Limit a small portion of plastic soil is alternately pressed together and rolled into a 1/8-inch diameter thread. This process is continued until the water content of the sample is reduced to a point at which the thread crumbles and can no longer be pressed together and re-rolled. The water content of the soil at this point is reported as the plastic limit. The plasticity index is calculated as the difference between the liquid limit and the plastic limit.

Direct Shear Tests of Soils Under Consolidated Drained Conditions (ASTM D3080) is performed on undisturbed and remolded samples representative of the foundation material. The samples are loaded with a predetermined normal stress and submerged in water until saturation is achieved. The samples are then sheared horizontally at a controlled strain rate allowing partial drainage. The shear stress on the sample is recorded at regular strain intervals. This test determines the resistance to deformation, which is shear strength, inter-particle attraction or cohesion c , and resistance to interparticle slip called the angle of internal friction ϕ .

Particle Size Analysis of Soils (ASTM D422) is used to determine the particle-size distribution of fine and coarse aggregates. In the test method the sample is separated through a series of sieves of progressively smaller openings for determination of particle size distribution. The total percentage passing each sieve is reported and used to determine the distribution of fine and coarse aggregates in the sample.

Density of Soil in Place by the Drive-Cylinder Method (ASTM D2937) and **Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass** (ASTM D2216) are used to obtain values of in-place water content and in-place density. Undisturbed samples, brought from the field to the laboratory, are weighed, the volume is calculated, and they are placed in the oven to dry. Once the samples have been dried, they are weighed again to determine the water content, and the in-place density is then calculated. The moisture density tests allow the water content and in-place densities to be obtained at required depths.

GeoSolutions, Inc.

PLASTICITY INDEX TEST SUMMARY REPORT (ASTM D4318)

(805) 543-8539

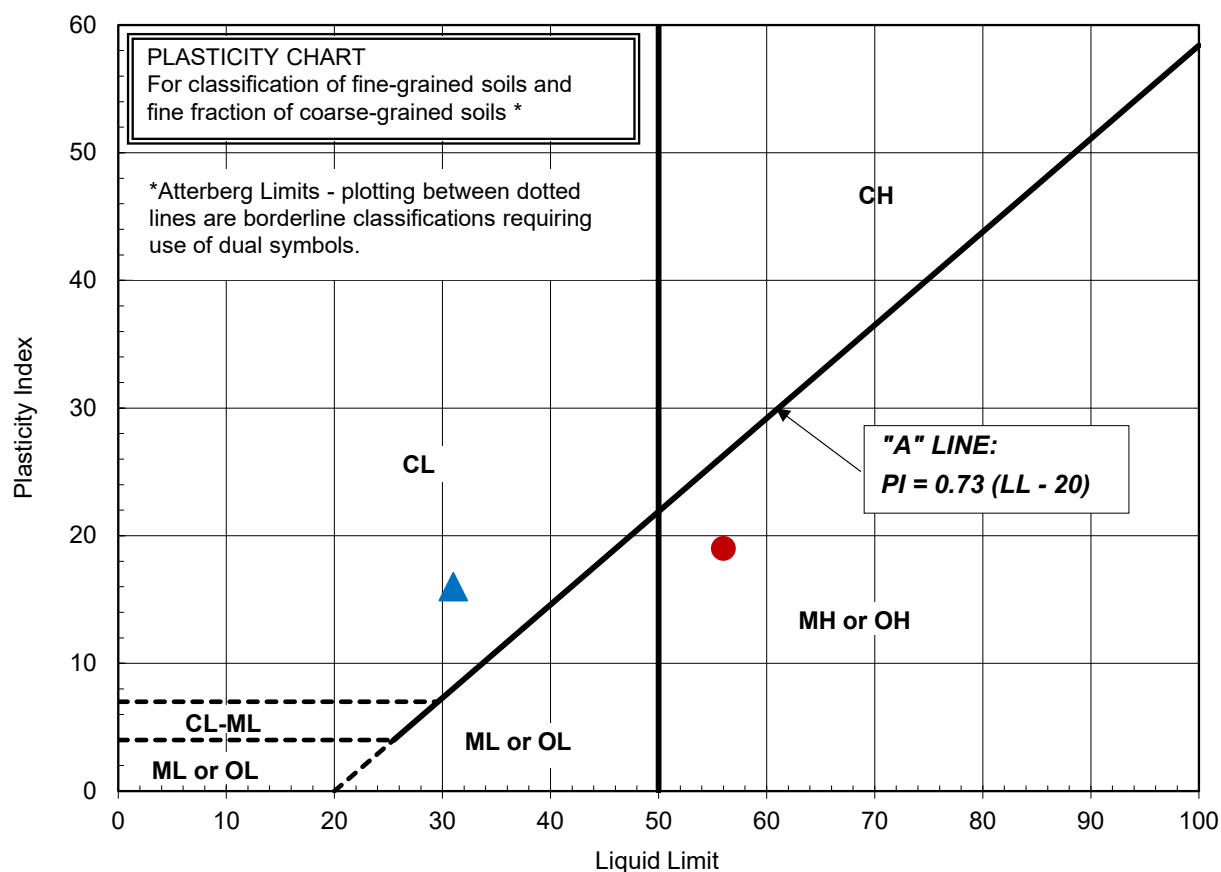
Project: Skye Street Drainage

Client: Pacific Pines HOA

Project #: SL14118-1

Date: 1/14/25

Checked by: AE



LEGEND

symbol location depth

CLASSIFICATION

TEST RESULTS

Liquid Plastic Plasticity
Limit (LL) Limit (PL) Index (PI)

●	B-1	0-1'	Very Dark Brown Sandy Elastic SILT	56	37	19
▲	B-1	1-8'	Yellowish Brown Clayey SAND	31	15	16

Remarks:

Testing was performed in accordance with ASTM D4318

NP - material tested is nonplastic (liquid or plastic limit tests could not be performed)

Report By: Aaron Eichman

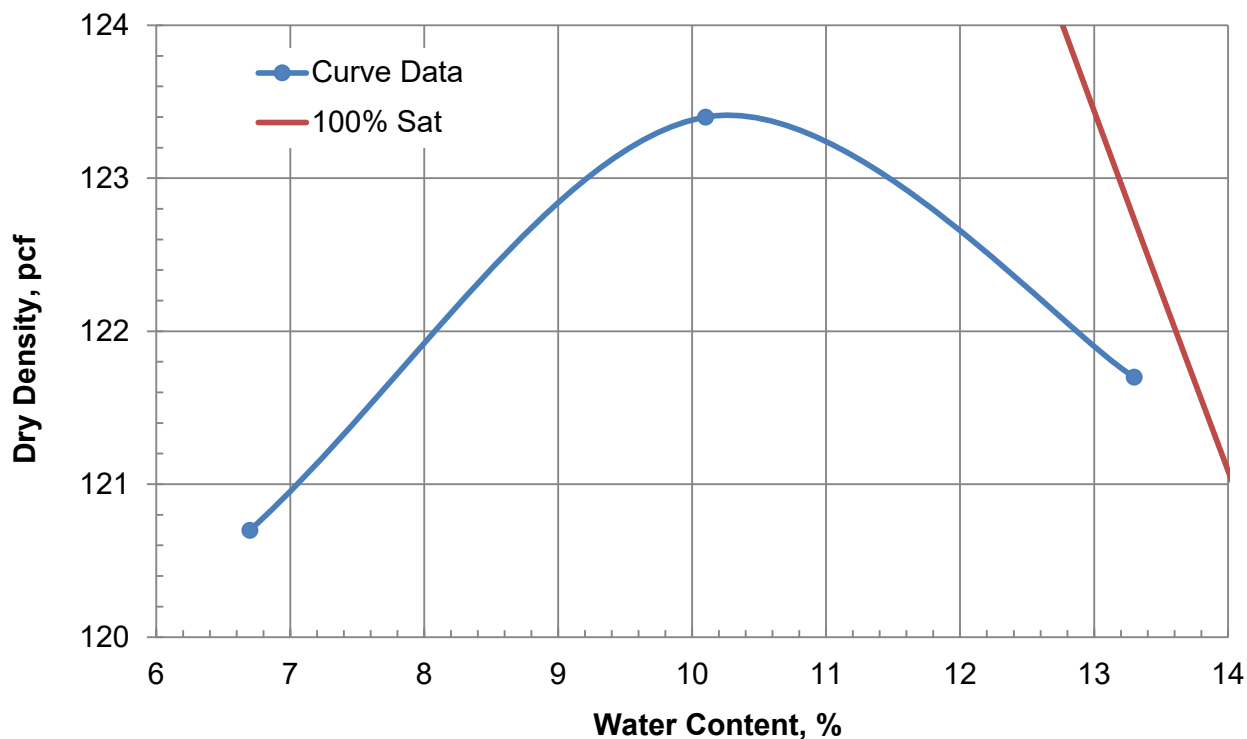
GeoSolutions, Inc.

LAB COMPACTION REPORT

ASTM D1557

(805) 543-8539

Project:	Skye Street Drainage	Date Tested:	January 8, 2025
Client:	Pacific Pines HOA	Project #:	SL14118-1
Sample:	B	Depth:	1.0 to 8.0 Feet
Source:	B-1	Lab #:	12819
Material:	Yellowish Brown Clayey SAND	Sample Date:	December 31, 2025
		Sampled By:	DB



ASTM Test Designation: ☐ D 698 ☒ D 1557
 Method (sieve size): ☐ A (#4) ☒ B (3/8") ☐ C (3/4")
 % Passing, Pf: _____ % Retained, Pc: _____ ☒ Estimated ☐ Measured
 Type of Rammer: _____ ☒ Mechanical ☐ Manual
 Preparation Method ☒ Moist ☐ Dry
 100% Saturation Curve-Estimated Gs: **2.65**

Laboratory Test Results

Trial #	1	2	3	4
Water Content, %	6.7	10.1	13.3	
Dry Density, pcf	120.7	123.4	121.7	

MAXIMUM DRY DENSITY, pcf:	123.4	OPTIMUM MOISTURE, %:	10.3
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Report By: Aaron Eichman

GeoSolutions, Inc.

PARTICLE SIZE ANALYSIS
SUMMARY REPORT

(805) 543-8539

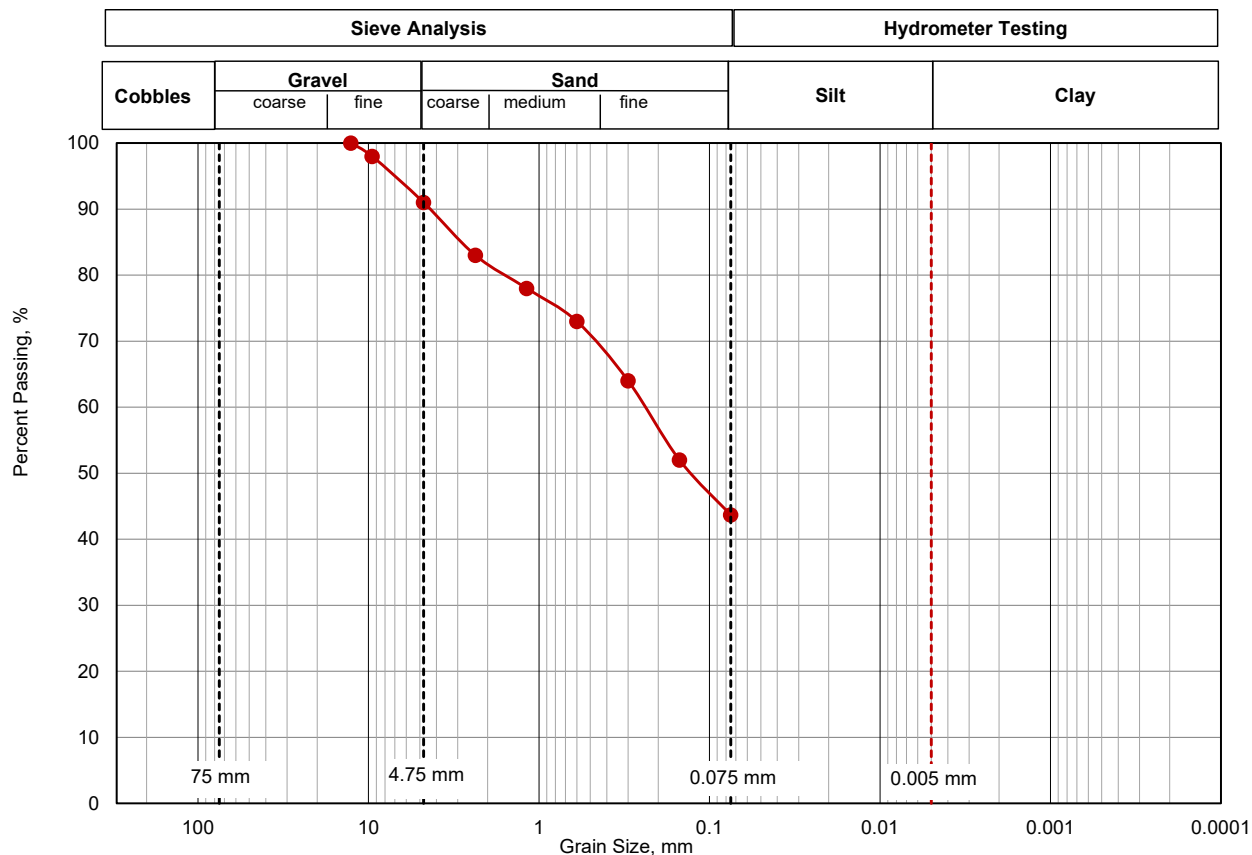
Project: Skye Street Drainage

Client: Pacific Pines HOA

Date: 1/14/2025

Project #: SL14118-1

Checked By: AE



LEGEND

symbol location depth



B-1

1-8'

SAMPLE DESCRIPTION

Yellowish Brown Clayey SAND

PLASTICITY (FINER FRACTION)

Liquid Limit (LL) Plastic Limit (PL) Plasticity Index (PI) Expansion Index (EI)

31

15

16

74

LEGEND

symbol location depth



B-1

1-8'

PARTICLE SIZE ANALYSIS SUMMARY

D ₁₀₀	D ₆₀	D ₃₀	D ₁₀	C _u	C _c	% Gravel	% Sand	% Passing No. 200	% Silt	% Clay
#N/A	0.250	NA	NA	NA	NA	9.0	47.3	43.7	NA	NA

Remarks: Testing was performed in accordance with ASTM D422 and D4318 (where applicable)

NP - non-plastic

NA - not available (could not be calculated from data)

D₁₀₀ - grain size diameter corresponding to 100% passing (mm)
D₆₀ - grain size diameter corresponding to 60% passing (mm)
D₃₀ - grain size diameter corresponding to 30% passing (mm)
D₁₀ - grain size diameter corresponding to 10% passing (mm)

C_c - coefficient of curvature: $C_c = (D_{30})^2 / (D_{60} \cdot D_{10})$
C_u - coefficient of uniformity: $C_u = D_{60} / D_{10}$

GeoSolutions, Inc.		DIRECT SHEAR TEST SUMMARY REPORT (ASTM D3080)		(805) 543-8539	
Project:	Skye Street Drainage			Project #:	SL14118-1
Client:	Pacific Pines HOA			Date Tested:	
Sample:	B-1 @ 4'	Depth:	4.0 Feet	Lab #:	12819
Location:	B-1			Checked By:	AE

MATERIAL DESCRIPTION	LL	PL	PI	% passing No. 200	Gs *	Sample Type
Yellowish Brown Clayey SAND	nm	nm	nm	nm	2.7	in-situ

* Gs = assumed; nm = not measured

--- $\sigma = 1$ ksf --- $\sigma = 2$ ksf --- $\sigma = 4$ ksf
○ Peak △ Ultimate

Horizontal Displacement (in)

--- $\sigma = 1$ ksf --- $\sigma = 2$ ksf --- $\sigma = 4$ ksf

Horizontal Displacement (in)

○ Peak
△ Ultimate
— Linear (Peak)

Normal Stress (ksf)

Initial Conditions	Specimen No.		
	1	2	3
Dry Density	103.4	103.3	106.5
Water Content (%)	12.1	12.1	12.1
Diameter (in)	2.42	2.42	2.42
Sample Height (in)	1.00	1.00	1.00

Test Data	Specimen No.		
	1	2	3
Normal Stress (ksf)	1.00	2.00	4.00
Peak Shear Stress (ksf)	0.730	1.413	3.095
Horiz. Displacement at Peak Shear (in)	0.160	0.200	0.200
Ultimate Shear Stress (ksf)	0.715	1.413	3.095
Horiz. Displ. at Ult. Shear (in)	0.200	0.200	0.200
Rate of Deformation (in/min)	0.002	0.002	0.002

	Peak	Ultimate
Angle of Internal Friction, ϕ_{peak} (degrees):	38.5	38.7
Cohesion, C_{peak} (psf)	0	0

Remarks: Saturated

APPENDIX C

Seismic Hazard Analysis

Design Map Summary (SEAOC, 2019)

SEISMIC HAZARD ANALYSIS

According to section 1613 of the 2022 CBC (CBSC, 2022), all structures and portions of structures should be designed to resist the effects of seismic loadings caused by earthquake ground motions in accordance with the *ASCE 7: Minimum Design Loads for Buildings and Other Structures*, hereafter referred to as ASCE7-16 (ASCE, 2016). Estimating the design ground motions at the Site depends on many factors including the distance from the Site to known active faults; the expected magnitude and rate of recurrence of seismic events produced on such faults; the source-to-site ground motion attenuation characteristics; and the Site soil profile characteristics. As per section 1613.2.2 of the 2022 CBC, the Site soil profile classification is determined by the average soil properties in the upper 100 feet of the Site profile and can be determined based on the criteria provided in Table 20.3-1 of ASCE7-16.

ASCE7-16 provides recommendations for estimating site-specific ground motion parameters for seismic design considering a Risk-targeted Maximum Considered Earthquake (MCE_R) in order to determine *design spectral response accelerations* and a Maximum Considered Earthquake Geometric Mean (MCE_G) in order to determine probabilistic geometric mean *peak ground accelerations*.

Spectral accelerations from the MCE_R are based on a 5% damped acceleration response spectrum and a 1% probability of exceedance in 50 years. *Maximum* short period (S_s) and 1-second period (S_1) spectral accelerations are interpolated from the MCE_R -based ground motion parameter maps for bedrock, provided in ASCE7-16. These spectral accelerations are then multiplied by site-specific coefficients (F_a , F_v), based on the Site soil profile classification and the maximum spectral accelerations determined for bedrock, to yield the *maximum* short period (S_{MS}) and 1-second period (S_{M1}) spectral response accelerations at the Site. According to section 11 of ASCE7-16 and section 1613 of the 2022 CBC, buildings and structures should be specifically proportioned to resist *design* earthquake ground motions. Section 1613.2.4 of the 2022 CBC indicates the site-specific *design* spectral response accelerations for short (S_{DS}) and 1-second (S_{D1}) periods can be taken as two-thirds of *maximum* ($S_{DS} = 2/3 \cdot S_{MS}$ and $S_{D1} = 2/3 \cdot S_{M1}$).

Per ASCE7-16, Section 21.5, the probabilistic maximum mean peak ground acceleration (PGA) corresponding to the MCE_G can be computed assuming a 2% probability of exceedance in 50 years (2475-year return period) and is initially determined from mapped ground accelerations for bedrock conditions. The site-specific peak ground acceleration (PGA_M) is then determined by multiplying the PGA by the site-specific coefficient F_h (where F_h is a function of Site Class and PGA).

Spectral response accelerations and peak ground accelerations, provided in this report were obtained using the computer-based Seismic Design Maps tool available from the Structural Engineers Association of California (SEAOC, 2022). This program utilizes the methods developed in ASCE 7-16 in conjunction with user-inputted Site location to calculate seismic design parameters and response spectra (both for period and displacement) for soil profile Site Classes A through E.



Latitude, Longitude: 35.55875986, -121.09028964



Date	2/14/2025, 9:02:13 AM
Design Code Reference Document	ASCE7-16
Risk Category	II
Site Class	C - Very Dense Soil and Soft Rock

Type	Value	Description
S_S	1.211	MCE_R ground motion. (for 0.2 second period)
S_1	0.437	MCE_R ground motion. (for 1.0s period)
S_{MS}	1.453	Site-modified spectral acceleration value
S_{M1}	0.656	Site-modified spectral acceleration value
S_{DS}	0.969	Numeric seismic design value at 0.2 second SA
S_{D1}	0.437	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	D	Seismic design category
F_a	1.2	Site amplification factor at 0.2 second
F_v	1.5	Site amplification factor at 1.0 second
PGA	0.546	MCE_G peak ground acceleration
F_{PGA}	1.2	Site amplification factor at PGA
PGA_M	0.655	Site modified peak ground acceleration
T_L	8	Long-period transition period in seconds
$SsRT$	1.211	Probabilistic risk-targeted ground motion. (0.2 second)
$SsUH$	1.353	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	2.287	Factored deterministic acceleration value. (0.2 second)
$S1RT$	0.437	Probabilistic risk-targeted ground motion. (1.0 second)
$S1UH$	0.479	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
$S1D$	0.87	Factored deterministic acceleration value. (1.0 second)

PGAd	0.956	Factored deterministic acceleration value. (Peak Ground Acceleration)
PGA _{UH}	0.546	Uniform-hazard (2% probability of exceedance in 50 years) Peak Ground Acceleration
C _{RS}	0.895	Mapped value of the risk coefficient at short periods
C _{R1}	0.914	Mapped value of the risk coefficient at a period of 1 s
C _V	1.142	Vertical coefficient

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APPENDIX D

Preliminary Grading Specifications

Key and Bench with Backdrain

PRELIMINARY GRADING SPECIFICATIONS

A. General

1. These preliminary specifications have been prepared for the subject site; GeoSolutions, Inc. should be consulted prior to the commencement of site work associated with site development to ensure compliance with these specifications.
2. GeoSolutions, Inc. should be notified at least 72 hours prior to site clearing or grading operations on the property in order to observe the stripping of surface materials and to coordinate the work with the grading contractor in the field.
3. These grading specifications may be modified and/or superseded by recommendations contained in the text of this report and/or subsequent reports.
4. If disputes arise out of the interpretation of these grading specifications, the Soils Engineer shall provide the governing interpretation.

B. Obligation of Parties

1. The Soils Engineer should provide observation and testing services and should make evaluations to advise the client on geotechnical matters. The Soils Engineer should report the findings and recommendations to the client or the authorized representative.
2. The client or their authorized representative should be chiefly responsible for all aspects of the project. The client or authorized representative has the responsibility of reviewing the findings and recommendations of the Soils Engineer. During grading the client or the authorized representative should remain on-site or should remain reasonably accessible to all concerned parties in order to make decisions necessary to maintain the flow of the project.
3. The contractor is responsible for the safety of the project and satisfactory completion of all grading and other operations on construction projects, including, but not limited to, earthwork in accordance with project plans, specifications, and controlling agency requirements.

C. Site Preparation

1. The client, prior to any site preparation or grading, should arrange and attend a meeting which includes the grading contractor, the design Structural Engineer, the Soils Engineer, representatives of the local building department, as well as any other concerned parties. All parties should be given at least 72 hours' notice.
2. All surface and sub-surface deleterious materials should be removed from the proposed building and pavement areas and disposed of off-site or as approved by the Soils Engineer. This includes, but is not limited to, any debris, organic materials, construction spoils, buried utility line, septic systems, building materials, and any other surface and subsurface structures within the proposed building areas. Trees designated for removal on the construction plans should be removed and their primary root systems grubbed under the observations of a representative of GeoSolutions, Inc. Voids left from site clearing should be cleaned and backfilled as recommended for structural fill.
3. Once the Site has been cleared, the exposed ground surface should be stripped to remove surface vegetation and organic soil. A representative of GeoSolutions, Inc. should determine the required depth of stripping at the time of work being completed. Strippings may either be disposed of off-site or stockpiled for future use in landscape areas, if approved by the landscape architect.

D. Site Protection

1. Protection of the Site during the period of grading and construction should be the responsibility of the contractor.
2. The contractor should be responsible for the stability of all temporary excavations.
3. During periods of rainfall, plastic sheeting should be kept reasonably accessible to prevent unprotected slopes from becoming saturated. Where necessary during periods of rainfall, the contractor should install check-dams, de-silting basins, sand bags, or other devices or methods necessary to control erosion and provide safe conditions.

E. Excavations

1. Materials that are unsuitable should be excavated under the observation and recommendations of the Soils Engineer. Unsuitable materials include, but may not be limited to: 1) dry, loose, soft, wet, organic, or compressible natural soils; 2) fractured, weathered, or soft bedrock; 3) non-engineered fill; 4) other deleterious materials; and 5) materials identified by the Soils Engineer or Engineering Geologist.
2. Unless otherwise recommended by the Soils Engineer and approved by the local building official, permanent cut slopes should not be steeper than 2:1 (horizontal to vertical). Final slope configurations should conform to section 1804 of the 2022 California Building Code unless specifically modified by the Soil Engineer/Engineering Geologist.
3. The Soil Engineer/Engineer Geologist should review cut slopes during excavations. The contractor should notify the Soils Engineer/Engineer Geologist prior to beginning slope excavations.

F. Structural Fill

1. Structural fill should not contain rocks larger than 3 inches in greatest dimension, and should have no more than 15 percent larger than 2.5 inches in greatest dimension.
2. Imported fill should be free of organic and other deleterious material and should have very low expansion potential, with a plasticity index of 12 or less. Before delivery to the Site, a sample of the proposed import should be tested in our laboratory to determine its suitability for use as structural fill.

G. Compacted Fill

1. Structural fill using approved import or native should be placed in horizontal layers, each approximately 8 inches in thickness before compaction. On-site inorganic soil or approved imported fill should be conditioned with water to produce a soil water content near optimum moisture and compacted to a minimum relative density of 90 percent based on ASTM D1557-12_{e1}.
2. Fill slopes should not be constructed at gradients greater than 2-to-1 (horizontal to vertical). The contractor should notify the Soils Engineer/Engineer Geologist prior to beginning slope excavations.
3. If fill areas are constructed on slopes greater than 10-to-1 (horizontal to vertical), we recommend that benches be cut every 4 feet as fill is placed. Each bench shall be a minimum of 10 feet wide with a minimum of 2 percent gradient into the slope.

4. If fill areas are constructed on slopes greater than 5-to-1, we recommend that the toe of all areas to receive fill be keyed a minimum of 24 inches into underlying dense material. Key depths are to be observed and approved by a representative of GeoSolutions, Inc. Sub-drains shall be placed in the keyway and benches as required.

H. Drainage

1. During grading, a representative of GeoSolutions, Inc. should evaluate the need for a sub-drain or back-drain system. Areas of observed seepage should be provided with sub-surface drains to release the hydrostatic pressures. Sub-surface drainage facilities may include gravel blankets, rock filled trenches or Multi-Flow systems or equal. The drain system should discharge in a non-erosive manner into an approved drainage area.
2. All final grades should be provided with a positive drainage gradient away from foundations. Final grades should provide for rapid removal of surface water runoff. Ponding of water should not be allowed on building pads or adjacent to foundations. Final grading should be the responsibility of the contractor, general Civil Engineer, or architect.
3. Concentrated surface water runoff within or immediately adjacent to the Site should be conveyed in pipes or in lined channels to discharge areas that are relatively level or that are adequately protected against erosion.
4. Water from roof downspouts should be conveyed in solid pipes that discharge in controlled drainage localities. Surface drainage gradients should be planned to prevent ponding and promote drainage of surface water away from building foundations, edges of pavements and sidewalks. For soil areas we recommend that a minimum of 2 percent gradient be maintained.
5. Attention should be paid by the contractor to erosion protection of soil surfaces adjacent to the edges of roads, curbs and sidewalks, and in other areas where hard edges of structures may cause concentrated flow of surface water runoff. Erosion resistant matting such as Miramat, or other similar products, may be considered for lining drainage channels.
6. Sub-drains should be placed in established drainage courses and potential seepage areas. The location of sub-drains should be determined after a review of the grading plan. The sub-drain outlets should extend into suitable facilities or connect to the proposed storm drain system or existing drainage control facilities. The outlet pipe should consist of a non-perforated pipe the same diameter as the perforated pipe.

I. Maintenance

1. Maintenance of slopes is important to their long-term performance. Precautions that can be taken include planting with appropriate drought-resistant vegetation as recommended by a landscape architect, and not over-irrigating, a primary source of surficial failures.
2. Property owners should be made aware that over-watering of slopes is detrimental to long term stability of slopes.

J. Underground Facilities Construction

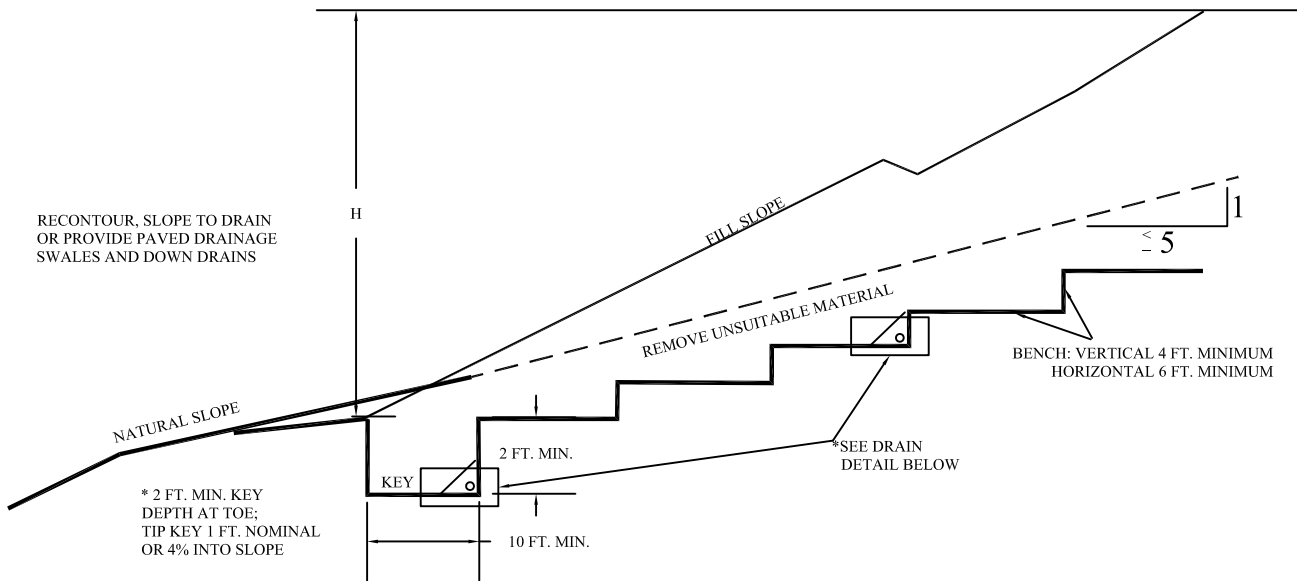
1. The attention of contractors, particularly the underground contractors, should be drawn to the State of California Construction Safety Orders for "Excavations, Trenches, Earthwork." Trenches or excavations greater than 5 feet in depth should be shored or sloped back in accordance with OSHA Regulations prior to entry.

2. Bedding is defined as material placed in a trench up to 1 foot above a utility pipe and backfill is all material placed in the trench above the bedding. Unless concrete bedding is required around utility pipes, clean sand should be used as bedding. Sand to be used as bedding should be tested in our laboratory to verify its suitability and to measure its compaction characteristics. Sand bedding should be compacted by mechanical means to achieve at least 90 percent relative density based on ASTM D1557-12.
3. On-site inorganic soils, or approved import, may be used as utility trench backfill. Proper compaction of trench backfill will be necessary under and adjacent to structural fill, building foundations, concrete slabs, and vehicle pavements. In these areas, backfill should be conditioned with water (or allowed to dry), to produce a soil water content of about 2 to 3 percent above the optimum value and placed in horizontal layers, each not exceeding 8 inches in thickness before compaction. Each layer should be compacted to at least 90 percent relative density based on ASTM D1557-12. The top lift of trench backfill under vehicle pavements should be compacted to the requirements given in report under Preparation of Paved Areas for vehicle pavement sub-grades. Trench walls must be kept moist prior to and during backfill placement.

K. Completion of Work

1. After the completion of work, a report should be prepared by the Soils Engineer retained to provide such services. The report should include locations and elevations of field density tests, summaries of field and laboratory tests, other substantiating data, and comments on any changes made during grading and their effect on the recommendations made in the approved Soils Engineering Report.
2. Soils Engineers shall submit a statement that, to the best of their knowledge, the work within their area of responsibilities is in accordance with the approved soils engineering report and applicable provisions within Chapter 18 of the 2022 CBC.

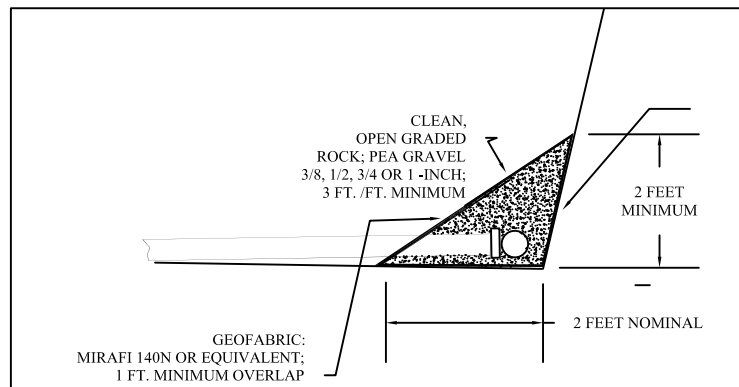
FILL OVER SLOPE



NOTES:

*BACKDRAIN AS RECOMMENDED BY GEOTECHNICAL PER DETAIL.

DRAIN DETAIL



NTS

GeoSolutions, Inc.

220 High Street
San Luis Obispo, CA 93401
(805) 543-8539 Fax: (805) 543-2171

KEY AND BENCH WITH BACKDRAIN

**DETAIL
A**



Parcel Information

APN: 013-124-022

Assessee: PACIFIC PINES HOMEOWNER ASSOC

Care Of:

Address: PO BOX 972, CAMBRIA
CA 93428

Description: TR 1539 LT 22 & ROADS

For additional assessment information please see Assessor's
Property Inquiry Portal

Community Code: CAMB

Supervisor District: Supdist 2

Avg Percent Slope: 32



Land Use Information

Land Uses

Combining Designations

RSF	Archaeologically Sensitive Area
	Flood Hazard Area
	Terrestrial Habitat
	GSA Geologic Hazard Area
	Coastal Zone



Permit Information

Permit	Description	Work Class	Application Date
C-DRC2026-00014	Land Use, Coastal Appealable	Minor Use Permit / CDP	4/22/2026 3:12:39 PM
P-APP2026-00076	Application	Land Use	4/22/2026 1:40:10 PM
PRE2024-00095	Pre-Application	Pre-Application	8/9/2024 4:11:23 PM
ZON2023-01401	Zoning Clearance	Tree Removal	9/7/2023 1:13:53 PM



Addresses on this Parcel

Recorded Ownership Documents (Current Ownership)

1989-R-072876



Legend

- SLO County Parcels
- Roads**
 - CalTrans
 - Maintained by SLO CO
 - Private Maintenance
 - Federal or State Maintenance
 - CITY OF SAN LUIS OBISPO; ARROYO GR
ATASCADERO; MORRO BAY; PASO ROB
BEACH
 - CAL POLY
- Community Advisory Groups**
 - Community Advisory Group Boundaries
 - Cayucos Citizens Advisory Council Subarea
 - Creston Advisory Body Sub Areas
- 2011 Supervisor Districts
- SLO County Boundary

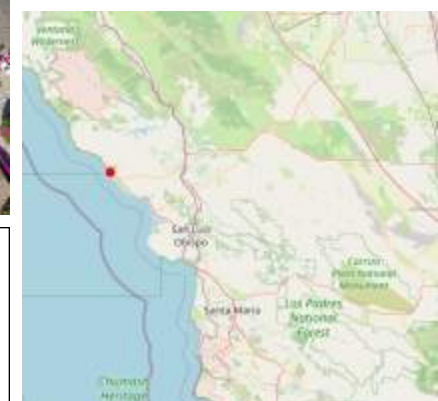
-376.17 0 188.08 376.17 Feet 1: 2,257

WGS_1984_Web_Mercator_Auxiliary_Sphere
 © County of San Luis Obispo Planning and Building Department



The County of San Luis Obispo does not assume liability for any damages
 caused by errors or omissions in the data and makes no warranty of any kind,
 express or implied, that these data are accurate and reliable.

Map for Reference Purposes Only

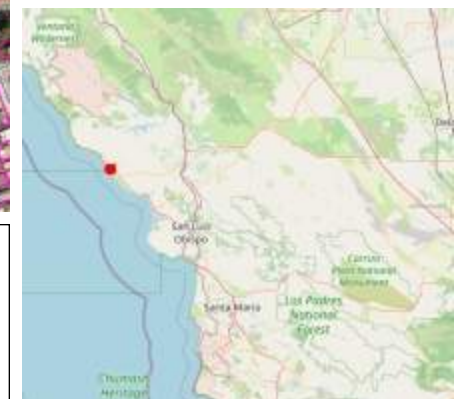


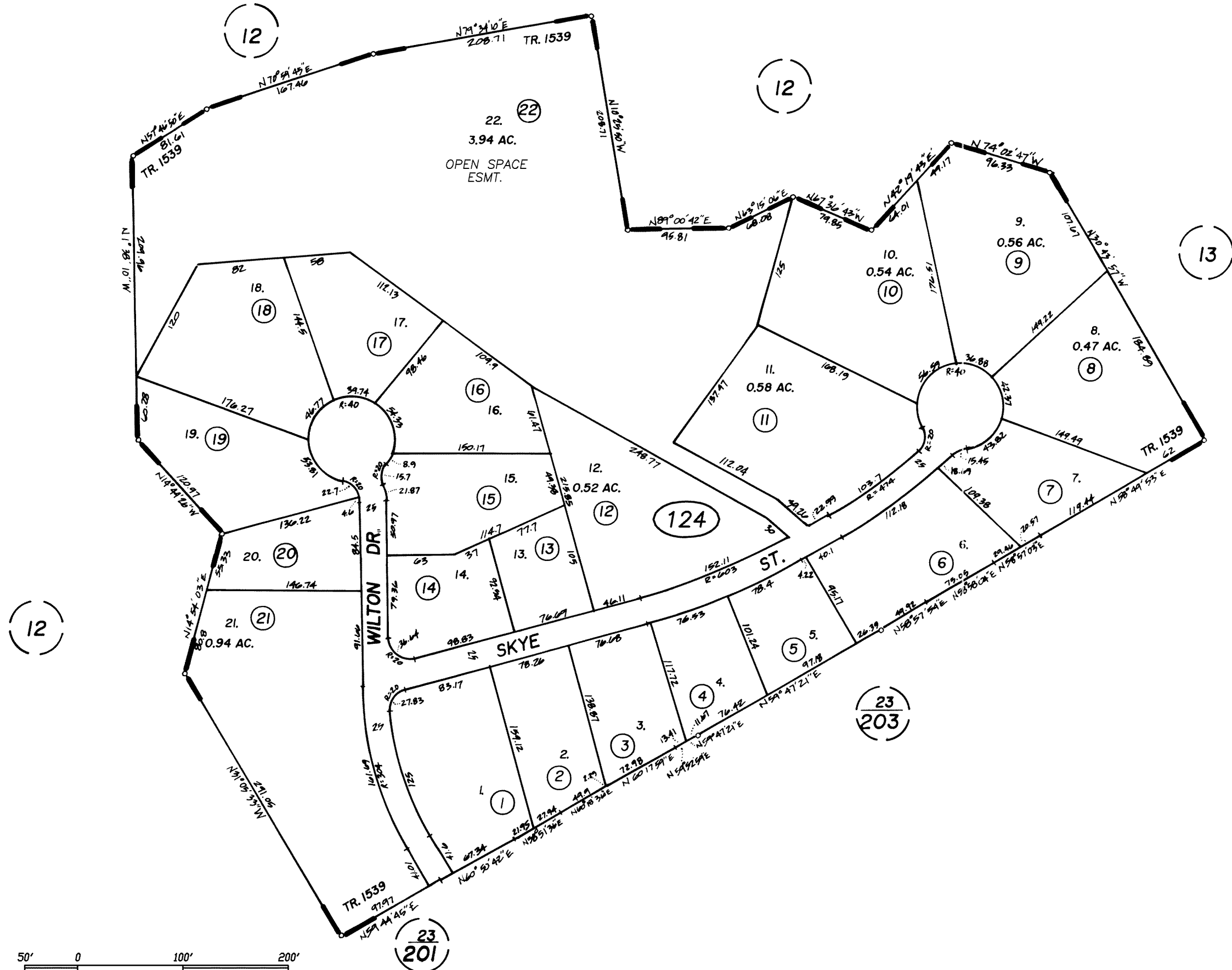
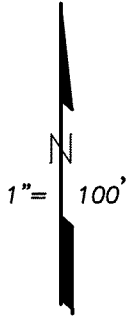


Legend

-  SLO County Parcels
- Roads**
 -  CalTrans
 -  Maintained by SLO CO
 -  Private Maintenance
 -  Federal or State Maintenance
 -  CITY OF SAN LUIS OBISPO; ARROYO GR ATASCADERO; MORRO BAY; PASO ROB BEACH
 -  CAL POLY
- Community Advisory Groups**
 -  Community Advisory Group Boundaries
 -  Cayucos Citizens Advisory Council Subarea
 -  Creston Advisory Body Sub Areas
-  2011 Supervisor Districts
-  SLO County Boundary

-1,504.66 0 752.33 1,504.66 Feet 1: 9,028





REVISIONS	
I.S.	DATE
NA	07-25-24

50' 0 100' 200'

ET
07-25-24

THIS MAP IS PREPARED FOR
ASSESSMENT PURPOSES ONLY.