CITY OF MOUNTAIN VIEW
RESOLUTION NO.
SERIES 2024

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MOUNTAIN VIEW ADOPTING THE INITIAL STUDY/MITIGATED NEGATIVE DECLARATION AND MITIGATION MONITORING AND REPORTING PROGRAM FOR 2019/20 CITY BRIDGES AND CULVERTS STRUCTURAL INSPECTION AND REPAIRS, PROJECT 20-60, IN ACCORDANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

WHEREAS, prior to the adoption of this Resolution, the City of Mountain View prepared an Initial Study and approved for circulation a Mitigated Negative Declaration for the 2019/20 City Bridges and Culverts Structural Inspection and Repairs, the Project 20-60 (the "Initial Study/Mitigated Negative Declaration") in accordance with the requirements of the California Environmental Quality Act of 1970, together with State guidelines implementing said Act, all as amended to date (collectively "CEQA"); and

WHEREAS, the 2019/20 City Bridges and Culverts Structural Inspection and Repairs, Project 20-60 (the "Project") analyzed under the Initial Study/Mitigated Negative Declaration is to replace two golf cart bridges, City Bridge #25 and City Bridge #27, located within the Shoreline Golf Links Facility. A more detailed description of the Project is set forth in the Initial Study/Mitigated Negative Declaration; and

WHEREAS, the draft Initial Study/Mitigated Negative Declaration includes mitigation measures to reduce potentially significant environmental impacts due to implementation of the Project to a less-than-significant level;

WHEREAS, the draft Initial Study/Mitigated Negative Declaration was made available for public comment from November 8, 2023 through December 8, 2023; and

WHEREAS, the City of Mountain View did not receive any public comments and prepared a final Initial Study/Mitigated Negative Declaration which is unchanged from the draft Initial Study/Mitigated Negative Declaration; and

WHEREAS, to facilitate implementation of all identified mitigation measures, a Mitigation Monitoring and Reporting Program was prepared to identify the timing of, and the agency responsible for monitoring of each mitigation measure to be implemented to reduce significant impacts to less than significant level; and

WHEREAS, the City of Mountain View is the lead agency on the Project, and the City Council is the decision-making body for the proposed approval of the Project; and

WHEREAS, the City Council has reviewed and considered the Initial Study/Mitigated Negative Declaration and intends to take actions on the Project in compliance with CEQA; and

WHEREAS, the Initial Study/Mitigated Negative Declaration and the Mitigation Monitoring and Reporting Program for the Project, attached hereto and incorporated herein as Exhibit A, are on file at the City of Mountain View's and available for inspection by any interested person; now therefore be it

RESOLVED: that the City Council finds the Initial Study/Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program prepared for the Project has been completed in compliance with CEQA; and be it

FURTHER RESOLVED: that the City Council finds on the basis of the whole record before it, including the Initial Study/Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program, that there is no substantial evidence that the Project will have a significant effect on the environment; and be it

FURTHER RESOLVED: that the City Council finds the Initial Study/Mitigated Negative Declaration reflects the independence judgment and analysis of the City of Mountain View; and be it

FURTHER RESOLVED: that the City Council hereby designates the Public Works Director, at 500 Castro Street, First Floor, Mountain View, California, 94041, as the custodian of documents and records of proceedings on which this decision is based; and be it

FURTHER RESOLVED: that the City Council hereby adopts the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program for the Project.

- - - - - - - - -

Exhibit: A. Final Initial Study/Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program

memo san jose

to **Marichrisse Hoang, Associate Civil Engineer, City of Mountain View Public Works Department**

from **Christina Lau, Senior Project Manager**

re **Final IS/MND for 2019/20 City Bridges and Culverts Structural Inspection and Repairs, Project 20-60**

date **December 14, 2023**

This memo was prepared as an informational document for the City of Mountain View for the 2019/20 City Bridges and Culverts Structural Inspection and Repairs, Project 20-60. The purpose of this Final Initial Study/Mitigated Negative Declaration (IS/MND) memo is to summarize the public review process for the project. This Final IS/MND Memo and Attachments, together with the Draft IS/MND (November 2023), comprise the CEQA environmental review for the project.

Section 15074(b) of the CEQA Guidelines states, "Prior to approving a project, the decision-making body of the lead agency shall consider the proposed mitigated negative declaration together with any comments received during the public review process. The decision-making body shall adopt the proposed mitigated negative declaration only if it finds on the basis of the whole record before it (including the Initial Study and any comments received), that there is no substantial evidence that the project will have a significant effect on the environment and that the mitigated negative declaration reflects the lead agency's independent judgment and analysis."

The project includes mitigation to reduce potentially significant impacts to less than significant levels. The Mitigation Monitoring and Reporting Program (MMRP) (Attachment A) presents these mitigation measures, identifies the timing and responsible entity for implementation of the measures, and a sign-off for completion.

The 30-day public review period for the draft IS/MND began on November 8, 2023 and closed on December 8, 2023. The Notice of Intent (NOI) was filed at the Santa Clara County Clerk's office on November 8, 2023 (Attachment B) and published in the Mountain View Daily Post on November 8, 2023. The document was also submitted for State Agency review with the State Clearinghouse (SCH#2023110216).

No written comments were received from any state or local agency, or the public during the comment period. Therefore, no errata or text changes are necessary for the IS/MND as a result of the public review process.

The following attachments are included for reference:

- Attachment A: Mitigation Monitoring and Reporting Plan (MMRP)
- Attachment B: Notice of Intent County and Filing Receipts

Attachment A

2019/20 City Bridges and Culverts Structural Inspection and Repairs, Project 20-60.

MITIGATION MONITORING AND REPORTING PROGRAM

This Mitigation, Monitoring and Reporting Program (MMRP) has been prepared pursuant to the CEQA Guidelines, which state:

> "When adopting a mitigated negative declaration, the lead agency shall also adopt a program for reporting on or monitoring the changes which it has either required in the project or made a condition of approval to mitigate or avoid significant environmental effects" (§15074(d)) and;
>
> "The Lead Agency may choose whether its program will monitor mitigation, report on mitigation, or both. "Reporting" generally consists of a written compliance review that is presented to the decision-making body or authorized staff person. A report may be required at various stages during project implementation or upon completion of the mitigation measure. "Monitoring" is generally an ongoing or periodic process of project oversight. There is often no clear distinction between monitoring and reporting and the program best suited to ensuring compliance in any given instance will usually involve elements of both." (§15097 (c))

The table beginning on the next page list the impacts, mitigation measures, and timing of the mitigation measures (when the measures will be implemented) related to the City of Mountain View 2019/20 City Bridges and Culverts Structural Inspection and Repairs, Project 20-60. All mitigation measures listed here will be implemented by the City and its contractors.

According to CEQA Guidelines section 15126.4 (a) (2), "Mitigation measures must be fully enforceable through permit conditions, agreements, or other legally-binding instruments. In the case of the adoption of a plan, policy, regulation, or other public project, mitigation measures can be incorporated into the plan, policy, regulation, or project design." Therefore, all mitigation measures as listed in this MMRP will be adopted by the City when the project is approved.

Impact	Mitigation Measure	Implementation and Timing	Monitoring Responsibility
Impact BIO-1: Project construction could accidentally injure or kill a western pond turtle or disturb them.	**Mitigation Measure BIO-1: Mitigation Measure BIO-1a:** Preconstruction Survey. No more than two weeks prior to the commencement of ground-disturbing activities, a qualified biologist shall perform a visual survey for western pond turtles within aquatic and upland habitat in the project area. An additional survey shall occur no more than 24 hours prior to the start of construction. The surveys shall be performed when the weather is sunny and warm to increase the likelihood that turtles will be detected, if present. The results of the surveys shall be documented and provided to the City. **Mitigation Measure BIO-1b:** Worker Environmental Training. All construction personnel shall participate in a worker environmental awareness program. These personnel shall be informed about the possible presence of all special-status species and habitats associated with the species identified to be potentially present in the project vicinity and that unlawful take of the animal or destruction of its habitat is a violation of federal and State laws. Prior to construction activities, the qualified biologist shall instruct all construction personnel about (1) the description and status of the species; (2) the importance of their associated habitats; and (3) a list of measures being taken to reduce impacts on these species during project construction and implementation. A fact sheet conveying this information shall be prepared for distribution to the construction crew and anyone else who enters the project site. All project personnel shall sign an affidavit certifying that they have attended the training and agree to follow the applicable avoidance measures. **Mitigation Measure BIO-1c:** Avoidance Measures for Western Pond Turtle. To minimize potential impacts on western pond turtle, project construction shall adhere to the following measures: Prior to the start of excavation within the pond, weighted silt curtains or similar barriers shall be installed in the pond around the work area to exclude pond turtles and other wildlife from the excavation area and to minimize sedimentation in the pond. The silt curtains or similar barriers shall be checked and maintained daily until the excavation is completed.	**Implementation:** City of Mountain View or its contractor shall implement this measure with a qualified biologist **Timing:** During construction activities.	**Monitoring:** City of Mountain View and a qualified biologist. Initials: _____ Date: _____

Impact	Mitigation Measure	Implementation and Timing	Monitoring Responsibility
	No equipment shall enter the pond. Excavation shall be done with an excavator staged outside the pond and reaching in. Project activities shall be limited to the smallest area necessary for equipment staging, site access, construction equipment and personnel parking, debris storage, etc. Construction shall be limited to daylight hours to prevent nighttime construction noise impacts to wildlife and no construction site flood lighting shall be utilized. To eliminate an attraction for the predators of special-status species, all food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in solid, closed containers (trash cans) and removed from the construction site daily. Plastic mono-filament netting (erosion control matting, wattles), rolled erosion control products or similar material shall not be used at the project site to prevent accidentally trapping wildlife species. If western pond turtle or other special-status species is found during construction, all work shall cease in the area where the individual was found until the animal leaves the impact area on its own. If this is not possible, a qualified biologist shall contact CDFW to determine whether the animal can be moved to an appropriate relocation site. If moving the animal is approved, the qualified biologist shall be given sufficient time to complete the task. Only qualified biologists shall capture, handle, and move listed species. The qualified biologist shall monitor any relocated individual until it is determined that it is safe. If a western pond turtle is observed during preconstruction surveys or project construction, a qualified biologist shall monitor all in-water work to ensure that no turtles are harmed during project construction.		
Impact BIO-2: The proposed project	**Mitigation Measure BIO-2:** Burrowing Owl Protection. Project construction (including staging) shall occur during the non-breeding season (i.e.,		

Impact	Mitigation Measure	Implementation and Timing	Monitoring Responsibility
could impact nesting or wintering burrowing owl, a CSSC. There are known past nesting locations within 150 to 300 feet of the project site.	wintering season) for burrowing owl from September 1 to January 31 if feasible. Within 14 days of project initiation, the Contractor shall obtain current information on burrowing owl nesting or wintering locations from the City of Mountain View, and construction shall avoid all nest and winter burrow locations with a minimum 250-foot buffer. A current map of burrowing owl nest or wintering locations shall be kept on site at all times, and buffer zones shall be flagged for avoidance prior to the start of construction. If ground squirrel burrows are located within the project footprint, one-way doors shall be installed by the City's Wildlife Preservation Biologist to passively evict any ground squirrels from the immediate area and in the unlikely event burrowing owls are present within those burrows. The one-way doors shall remain in place for at least 48 hours and until construction commences at which time they can be removed by the City's Wildlife Preservation Biologist.		
Impact BIO-3: The proposed project could impact nesting birds protected under the federal MBTA and California Fish and Game code. Birds could nest in the trees, shrubs or structures in or near the project site.	**Mitigation Measure BIO-3:** Pre-Construction Survey for Nesting Birds. Project construction (including staging) shall occur outside of the bird nesting season if possible (defined as the time between September 1st and January 31st). If construction starts during the bird nesting season between February 1st and August 31st, the Contractor shall contact the City of Mountain View within 14 days of project initiation about any known white-tailed kite nest locations, saltmarsh common yellowthroat nest locations, or other known nesting bird locations. In addition, a qualified biologist shall perform a pre-construction survey to identify active bird nests on or near the site, including staging areas. The pre-construction survey shall take place no more than seven days prior to the start of construction, and if more than seven days pass with no construction activities, another pre-construction survey shall be required. The survey shall include all trees, shrubs, and structures on the site, and all trees, shrubs, and structures within a 250-foot radius of the site. In addition, a 0.5-mile radius shall be searched for nesting white-tailed kite. If an active,		

Impact	Mitigation Measure	Implementation and Timing	Monitoring Responsibility
	native bird nest has been documented by the City or is found during the survey, the biologist shall designate a construction-free buffer zone (0.5 mile for white-tailed kites, typically 500 feet for other raptors, and 250 feet for other birds) around the nest to remain in place until the young have fledged. The qualified biologist shall be contacted immediately if a bird nest is discovered during project construction. The results of the survey and nest monitoring (if applicable) will be documented, and any nest buffer zones shall be flagged for avoidance prior to the start of construction.		
Impact BIO-4: The proposed project could impact roosting bats if they are present under Bridge #25 or Bridge #27.	**Mitigation Measure BIO-4:** Not less than 30 days before the start of construction-related activities (including but not limited to mobilization and staging, clearing, grubbing, tree removal, vegetation removal, fence installation, demolition, and grading), a roosting bat survey will be conducted within the project site and a 50-foot buffer, including the culverts under Bridge #25 and under Bridge #27, as feasible. The survey may be conducted at any time of year but should be conducted in such a way to allow sufficient time to determine if special-status bats or maternity colonies are present. If no signs of bats are detected during the survey, no further surveys are warranted. If signs of bat occupancy (e.g., guano pellets or urine staining) are detected or if the biologist cannot adequately survey under the bridges, a follow-up dusk emergence survey should be conducted by a qualified biologist. A dusk survey will verify if bats are present and/or will determine the number of bats present, and will also include the use of acoustic equipment to determine species of bats present. If an occupied maternity or colony roost is detected, CDFW shall be consulted to determine appropriate measures, such as the establishment of a no-disturbance buffer. The results of the surveys shall be documented.		
Impact BIO-5: The proposed project would include	**Mitigation Measure BIO-5:** The project shall apply for coverage under RWQCB Order 2004-0004, which provides General WDRs for projects outside of federal jurisdiction that impact less than 0.2 acres of area		

Impact	Mitigation Measure	Implementation and Timing	Monitoring Responsibility
excavation in an artificial golf course pond under the jurisdiction of the San Francisco Bay RWQCB and CDFW.	subject to Water Board jurisdiction. The City shall also submit a Notification of Lake or Streambed Alteration for the project to CDFW. The project shall not be initiated until all permits required by the RWQCB, and/or CDFW are obtained, or the agency(ies) have confirmed that no permits are required.		
Impact CUL-1: Construction of the project could potentially result in disturbance to both recorded and unknown archaeological resources.	**Mitigation Measure CUL-1:** Inadvertent Discovery of Archaeological Resources. The City shall retain a Professional Archaeologist on an "on-call" basis during ground disturbing construction activities to review, identify and evaluate any potential cultural resources that may be inadvertently exposed during construction. The Professional Archaeologist shall review and evaluate any discoveries to determine if they are historical resource(s) and/or unique archaeological resources under the California Environmental Quality Act (CEQA). If the Professional Archaeologist determines that any cultural resources exposed during construction constitute a historical resource and/or unique archaeological resource under CEQA, he/she shall notify the City and other appropriate parties of the evaluation and recommend mitigation measures to mitigate to a less-than significant impact in accordance with California Public Resources Code Section 15064.5. Mitigation measures may include avoidance, preservation in-place, recordation, additional archaeological testing and data recovery among other options. The completion of a formal Archaeological Monitoring Plan (A.M.P) and/or Archaeological Treatment Plan (ATP) that may include data recovery may be recommended by the Professional Archaeologist if significant archaeological deposits are exposed during ground disturbing construction. Development and implementation of the A.M.P and ATP and treatment of significant cultural resources will be determined by the City in consultation with any regulatory agencies.	**Implementation:** The City of Mountain View shall implement this measure with a qualified Archeologist **Timing:** During construction activities.	**Monitoring:** City of Mountain View. In the event archaeological resources are discovered, a qualified archaeologist shall write a report detailing their findings and submit it to the City of Mountain View. Initials: _____ Date: _____

Impact	Mitigation Measure	Implementation and Timing	Monitoring Responsibility
	A Monitoring Closure Report shall be filed with the City at the conclusion of ground disturbing construction if archaeological and Native American monitoring of excavation was undertaken.		
Impact CUL-2: Project excavation could disturb previously unknown buried archaeological resources and/or human remains.	**Mitigation Measure CUL-2:** Inadvertent Discovery of Human Remains. In accordance with Section 7050.5, Chapter 1492 of the California Health and Safety Code and Sections 5097.94, 5097.98 and 5097.99 of the Public Resources Code, if potential human remains are found, the lead agency (City of Mountain View) staff and the Santa Clara County Coroner shall be immediately notified of the discovery. The coroner would provide a determination regarding the nature of the remains within 48 hours of notification. No further excavation or disturbance of the identified material, or any area reasonably suspected to overlie additional remains, can occur until a determination has been made. If the County Coroner determines that the remains are, or are believed to be, of Native American ancestry, the coroner would notify the Native American Heritage Commission within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the Native American Heritage Commission must immediately notify those persons it believes to be the Most Likely Descendant from the deceased Native American. Within 48 hours of this notification, the Most Likely Descendant would recommend to the lead agency their preferred treatment of the remains and associated grave goods.	**Implementation:** The City of Mountain View shall implement this measure **Timing:** During construction activities.	**Monitoring:** City of Mountain View and a qualified archeologist Initials: _____ Date: _____
Impact GEO-1: Project construction could unearth paleontological resources, including fossils.	**Mitigation Measure GEO-1:** Stop-Work Provision. If paleontological resources are discovered during construction, ground-disturbing activities shall halt immediately until a qualified paleontologist can assess the significance of the discovery. Depending on determinations made by the paleontologist, work may either be allowed to continue once the discovery has been recorded, or if recommended by the paleontologist, recovery of the resource may be required, in which ground-disturbing activity within the area of the find would be temporarily halted until the resource has been recovered. If treatment and salvage is required, recommendations shall be	**Implementation:** The City of Mountain View or its contractor shall implement this measure. **Timing:** Measures to be implemented	**Monitoring:** City of Mountain View. In the event paleontological resources are encountered, a paleontologist shall be

Impact	Mitigation Measure	Implementation and Timing	Monitoring Responsibility
	consistent with Society of Vertebrate Paleontology guidelines and current professional standards. The City of Mountain View shall ensure that information on the nature, location, and depth of all finds is readily available to the scientific community through university curation or other appropriate means.	during construction	contacted to evaluate the find. Initials: _____ Date: _____

Attachment B

Regina Alcomendras
Santa Clara County
Clerk-Recorder
(408) 299-5688
https://www.clerkrecorder.org

Receipt: 23-168944

Product	Name	Extended
CEQA	ENVIRONMENTAL FILING	$0.00
	# Pages	2
	Document #	ENV24844
	Document Info:	CITY OF MOUNTAIN VIEW
	Filing Type	F
Total		$0.00
Change (Cash)		$0.00

PLEASE KEEP FOR REFERENCE

11/8/23 9:12 AM nkhamphilath

State of California - Department of Fish and Wildlife

2023 ENVIRONMENTAL DOCUMENT FILING FEE CASH RECEIPT

DFW 753.5a (REV. 01/01/23) Previously DFG 753.5a

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RECEIPT NUMBER:
43 — ENV24844 —

STATE CLEARINGHOUSE NUMBER *(If applicable)*

SEE INSTRUCTIONS ON REVERSE. TYPE OR PRINT CLEARLY.

LEAD AGENCY	LEAD AGENCY EMAIL	DATE
CITY OF MOUNTAIN VIEW	marichrisse.hoang@mountainview.gov	11/08/2023

COUNTY/STATE AGENCY OF FILING	DOCUMENT NUMBER
Santa Clara	

PROJECT TITLE

2019/20 CITY BRIDGES AND CULVERTS STRUCTURAL INSPECTION AND REPAIRS, PROJECT 20-60

PROJECT APPLICANT NAME	PROJECT APPLICANT EMAIL	PHONE NUMBER
CITY OF MOUNTAIN VIEW		(650) 903-6991

PROJECT APPLICANT ADDRESS	CITY	STATE	ZIP CODE
500 CASTRO STREET	MOUNTAIN VIEW	CA	94041

PROJECT APPLICANT *(Check appropriate box)*

☒ Local Public Agency ☐ School District ☐ Other Special District ☐ State Agency ☐ Private Entity

CHECK APPLICABLE FEES:

☐ Environmental Impact Report (EIR)	$3,839.25	$	0.00
☐ Mitigated/Negative Declaration (MND)(ND)	$2,764.00	$	0.00
☐ Certified Regulatory Program (CRP) document - payment due directly to CDFW	$1,305.25	$	0.00

☐ Exempt from fee
- ☐ Notice of Exemption (attach)
- ☐ CDFW No Effect Determination (attach)

☐ Fee previously paid (attach previously issued cash receipt copy)

☐ Water Right Application or Petition Fee (State Water Resources Control Board only)	$850.00	$	0.00
☐ County documentary handling fee		$	
☐ Other		$	

PAYMENT METHOD:

☐ Cash ☐ Credit ☐ Check ☒ Other **TOTAL RECEIVED** $ $0.00 0.00

SIGNATURE	AGENCY OF FILING PRINTED NAME AND TITLE
X N. Khamphilath	Nina Khamphilath, Deputy County Clerk-Recorder

Santa Clara County - Clerk-Recorder Office
State of California

File Number: ENV24844

ENVIRONMENTAL FILING
No. of Pages: 2
Total Fees: $0.00
File Date: 11/08/2023
Expires: 12/08/2023

REGINA ALCOMENDRAS, Clerk-Recorder
By: Nina Khamphilath, Deputy Clerk-Recorder

SANTA CLARA COUNTY CLERK
CEQA FILING COVER SHEET

THIS SPACE FOR CLERK'S USE ONLY

Complete and attach this form to each CEQA Notice filed with the County Clerk

TYPE OR PRINT CLEARLY

Check Document being Filed:

- ☐ Environmental Impact Report (EIR)
  - ☐ Filing Fee (new project)
  - ☐ Previously Paid F&W **(must attach F&W receipt and project titles must match)**
  - ☐ No Effect Determination **(F&W letter must be attached)**
- ☐ Mitigated Negative Declaration (MND) or Negative Declaration (ND)
  - ☐ Filing Fee (new project)
  - ☐ Previously Paid F&W **(must attach F&W receipt and project titles must match)**
  - ☐ No Effect Determination **(F&W letter must be attached)**
- ☐ Notice of Exemption (NOE)
- ☑ Other (Please fill in type):

Notice of Intent to Adopt a Mitigated Negative Declaration

1. LEAD AGENCY: City of Mountain View
2. LEAD AGENCY EMAIL: marichrisse.hoang@mountainview.gov
3. PROJECT TITLE: 2019/20 City Bridges and Culverts Structural Inspection and Repairs, Project 20-60
4. APPLICANT NAME: City of Mountain View PHONE: (650) 903-6991
5. APPLICANT EMAIL: marichrisse.hoang@mountainview.gov
6. APPLICANT ADDRESS: 500 Castro Street , Mountain View, CA 94041
7. PROJECT APPLICANT IS A: ☑ Local Public Agency ☐ School District ☐ Other Special District ☐ State Agency ☐ Private Entity
8. NOTICE TO BE POSTED FOR 30 DAYS.

Filing fees are due at the time a Notice of Determination/Exemption is filed with our office. For more information on filing fees and No Effect Determinations, please refer to California Code of Regulations, Title 14, section 753.5.

Rev_8/2023

City of Mountain View

PUBLIC WORKS DEPARTMENT
Public Services Division
500 Castro Street
Mountain View, CA 94041
650-903-6329 | MountainView.gov

Notice of Intent to Adopt a Mitigated Negative Declaration

Project Title: 2019/20 City Bridges and Culverts Structural Inspection and Repairs, Project 20-60
City/County: City of Mountain View, Santa Clara County, California
Public Review Period: November 8, 2023 to December 8, 2023

NOTICE IS HEREBY GIVEN that the City of Mountain View (City) has prepared a Draft Mitigated Negative Declaration (MND) for the **2019/20 City Bridges and Culverts Structural Inspection and Repairs, Project 20-60** which is available beginning on November 8, 2023 for review and comment by the public and all interested persons, agencies, and organizations for a period of 30 days, ending on December 8, 2023. All comments on the Draft MND must be received by that date.

Project Location: The project site is located within the 73.5-acre Shoreline Golf Links golf course at 2940 North Shoreline Boulevard in the northern part of the City of Mountain View.

Project Description: The purpose of the project is to remove two structurally deficient bridges located in the Shoreline Golf Links golf course and install new two prefabricated bridges within the vicinity of the existing bridges being removed. These structures were previously reviewed as part of the 2018 Citywide Bridge and Culvert Structural Assessment Program, and were found to have significant deficiencies. The purpose of the project is to replace these structures. The project addressed in this Initial Study is part of a larger project; 2019/20 City Bridges and Culverts Structural Inspection and Repairs, Project 20-60.

Potentially Significant Environmental Effects: Potentially significant impacts in the following areas are discussed in the Mitigated Negative Declaration: Biological Resources, Cultural and Tribal Cultural Resources, and Geology and Soils. Each potentially significant effect is reduced to a less-than-significant level through mitigation.

Public Review and Comment: Comments on the Draft MND must be received by December 8, 2023. The document will be available for review on the City of Mountain View Website: https://www.mountainview.gov/our-city/departments/community-development/planning/active-projects/ceqa-postings. An electronic or paper copy of the Draft MND can be requested by contacting Marichrisse Hoang, at (650) 903-6991, or Marichrisse.Hoang@mountainview.gov. Comments on the Draft MND may be submitted in writing to: Marichrisse Hoang, City of Mountain View, Public Works Division, 500 Castro Street Mountain View, CA 94041 or Marichrisse.Hoang@mountainview.gov.

2019/20 City Bridges and Culverts Structural Inspection and Repairs, Project 20-60

Initial Study / Mitigated Negative Declaration

City of Mountain View

November 2023

Prepared with Assistance from MIG, Inc.

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Draft Mitigated Negative Declaration

Project: 2019/20 City Bridges and Culverts Structural Inspection and Repairs, Project 20-60.

Project Proponent: City of Mountain View
Public Works Department
500 Castro Street
Mountain View, CA 94041

Property Owner: City of Mountain View
Public Works Department
500 Castro Street
Mountain View, CA 94041

Lead Agency: City of Mountain View
500 Castro Street
Mountain View, CA 94041

Availability of Documents: The Initial Study for this Mitigated Negative Declaration is available for review at: https://www.mountainview.gov/our-city/departments/community-development/planning/active-projects/ceqa-postings

Contact – Marichrisse Hoang, Associate Civil Engineer, Public Works Department, Public Services Division, (650) 903-6991, Marichrisse.Hoang@mountainview.gov

PROJECT DESCRIPTION

The project proposes to replace two golf cart bridges, City Bridge #25 and City Bridge #27, that are located within the Shoreline Golf Links Facility in the City of Mountain View. The structures were previously reviewed and identified with significant deficiencies as part of the 2018 Citywide Bridge and Culvert Structural Assessment Program.

At City Bridge #25, the project will construct a new prefabricated steel bridge structure to the northeast of the existing corrugated metal pipe (CMP) causeway structure. The project will include construction of new pile supported abutments, installation of a 152-foot long by 8-foot wide prefabricated steel truss bridge, protection of the causeway CMP structure, removal of existing asphaltic concrete paving along the causeway, excavation to separate the existing causeway from the adjacent land to create an island feature within Pond #4, and other miscellaneous site work necessary for the new bridge and pathway conforms. The new bridge will consist of a prefabricated steel through truss with cross bracing, safety rails, toe plate and lightweight concrete deck. New concrete abutments supported on cast-in-drilled-hole piling will be constructed.

At City Bridge #27, the project will replace the existing 70-foot long by 6-foot wide golf cart bridge over pond #4 at the 5th Fairway of Shoreline Golf Links. The project will include removal of the existing bridge, installation of a 70-foot long by 6.5-foot wide prefabricated truss bridge, and other miscellaneous site work necessary for the new bridge. The existing City Bridge # 27 structure consists of a prefabricated steel through truss superstructure supported on existing concrete abutments. The replacement bridge will consist of a prefabricated steel through truss with cross bracing, safety rails, toe plate and wood decking. The existing concrete abutments will be reused.

PROPOSED FINDINGS

The City of Mountain View (City) has reviewed the attached Initial Study and determined that the Initial Study identifies potentially significant project effects, but:

1. Revisions to the project plans incorporated herein as mitigation would avoid or mitigate the effects to a point where no significant effects would occur; and

2. There is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment. Therefore, pursuant to California Environmental Quality Act (CEQA) Guidelines Sections 15064(f)(3) and 15070(b), a Mitigated Negative Declaration has been prepared for consideration as the appropriate CEQA document for the project.

BASIS OF FINDINGS

Based on the environmental evaluation presented in the attached Initial Study, the project would not cause significant adverse effects related to; air quality, aesthetics, agricultural and forestry resources, energy, greenhouse gas emissions, hazards and hazardous emissions, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, utilities/service systems, and wildfire. The project does not have impacts that are individually limited, but cumulatively considerable.

The environmental evaluation has determined that the project would have potentially significant impacts on biological resources, cultural and tribal cultural resources, and geology and soils, as described below.

Mitigation Measures

The project could result in significant adverse effects to biological resources, cultural resources, and tribal cultural resources. However, the project includes the mitigation measures listed below, which reduce these impacts to a less-than-significant level. With implementation of these mitigation measures, the project would not substantially degrade the quality of the environment, 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 a rare or endangered plant or animal. Nor would the project cause substantial adverse effects on humans, either directly or indirectly.

Mitigation Measures Incorporated into the Project	
Impact BIO-1: Project construction could accidentally injure or kill a western pond turtle or disturb them.	**Mitigation Measure BIO-1a: Preconstruction Survey.** No more than two weeks prior to the commencement of ground-disturbing activities, a qualified biologist shall perform a visual survey for western pond turtles within aquatic and upland habitat in the project area. An additional survey shall occur no more than 24 hours prior to the start of

	construction. The surveys shall be performed when the weather is sunny and warm to increase the likelihood that turtles will be detected, if present. The results of the surveys shall be documented and provided to the City. **Mitigation Measure BIO-1b: Worker Environmental Training.** All construction personnel shall participate in a worker environmental awareness program. These personnel shall be informed about the possible presence of all special-status species and habitats associated with the species identified to be potentially present in the project vicinity and that unlawful take of the animal or destruction of its habitat is a violation of federal and State laws. Prior to construction activities, the qualified biologist shall instruct all construction personnel about (1) the description and status of the species; (2) the importance of their associated habitats; and (3) a list of measures being taken to reduce impacts on these species during project construction and implementation. A fact sheet conveying this information shall be prepared for distribution to the construction crew and anyone else who enters the project site. All project personnel shall sign an affidavit certifying that they have attended the training and agree to follow the applicable avoidance measures. **Mitigation Measure BIO-1c: Avoidance Measures for Western Pond Turtle.** To minimize potential impacts on western pond turtle, project construction shall adhere to the following measures: • Prior to the start of excavation within the pond, weighted silt curtains or similar barriers shall be installed in the pond around the work area to exclude pond turtles and other wildlife from the excavation area and to minimize sedimentation in the pond. The silt curtains or similar barriers shall be checked and maintained daily until the excavation is completed.

	• No equipment shall enter the pond. Excavation shall be done with an excavator staged outside the pond and reaching in. • Project activities shall be limited to the smallest area necessary for equipment staging, site access, construction equipment and personnel parking, debris storage, etc. • Construction shall be limited to daylight hours to prevent nighttime construction noise impacts to wildlife and no construction site flood lighting shall be utilized. • To eliminate an attraction for the predators of special-status species, all food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in solid, closed containers (trash cans) and removed from the construction site daily. • Plastic mono-filament netting (erosion control matting, wattles), rolled erosion control products or similar material shall not be used at the project site to prevent accidentally trapping wildlife species. • If western pond turtle or other special-status species is found during construction, all work shall cease in the area where the individual was found until the animal leaves the impact area on its own. If this is not possible, a qualified biologist shall contact CDFW to determine whether the animal can be moved to an appropriate relocation site. If moving the animal is approved, the qualified biologist shall be given sufficient time to complete the task. Only qualified biologists shall capture, handle, and move listed species. The qualified biologist shall monitor any relocated individual until it is determined that it is safe. • If a western pond turtle is observed during preconstruction surveys or project construction, a qualified biologist shall monitor all in-water work to ensure that no

	turtles are harmed during project construction.
Impact BIO-2: The proposed project could impact nesting or wintering burrowing owl, a CSSC. There are known past nesting locations within 150 to 300 feet of the project site.	**Mitigation Measure BIO-2: Burrowing Owl Protection.** Project construction (including staging) shall occur during the non-breeding season (i.e., wintering season) for burrowing owl from September 1 to January 31 if feasible. Within 14 days of project initiation, the Contractor shall obtain current information on burrowing owl nesting or wintering locations from the City of Mountain View, and construction shall avoid all nest and winter burrow locations with a minimum 250-foot buffer. A current map of burrowing owl nest or wintering locations shall be kept on site at all times, and buffer zones shall be flagged for avoidance prior to the start of construction. If ground squirrel burrows are located within the project footprint, one-way doors shall be installed by the City's Wildlife Preservation Biologist to passively evict any ground squirrels from the immediate area and in the unlikely event burrowing owls are present within those burrows. The one-way doors shall remain in place for at least 48 hours and until construction commences at which time they can be removed by the City's Wildlife Preservation Biologist.
Impact BIO-3: The proposed project could impact nesting birds protected under the federal MBTA and California Fish and Game code. Birds could nest in the trees, shrubs or structures in or near the project site.	**Mitigation Measure BIO-3: Pre-Construction Survey for Nesting Birds.** Project construction (including staging) shall occur outside of the bird nesting season if possible (defined as the time between September 1st and January 31st). If construction starts during the bird nesting season between February 1st and August 31st, the Contractor shall contact the City of Mountain View within 14 days of project initiation about any known white-tailed kite nest locations, saltmarsh common yellowthroat nest locations, or other known nesting bird locations. In addition, a qualified biologist shall perform a pre-construction survey to identify active bird nests on or near the site, including staging areas. The pre-construction survey shall take place no more

	than seven days prior to the start of construction, and if more than seven days pass with no construction activities, another pre-construction survey shall be required. The survey shall include all trees, shrubs, and structures on the site, and all trees, shrubs, and structures within a 250-foot radius of the site. In addition, a 0.5-mile radius shall be searched for nesting white-tailed kite. If an active, native bird nest has been documented by the City or is found during the survey, the biologist shall designate a construction-free buffer zone (0.5 mile for white-tailed kites, typically 500 feet for other raptors, and 250 feet for other birds) around the nest to remain in place until the young have fledged. The qualified biologist shall be contacted immediately if a bird nest is discovered during project construction. The results of the survey and nest monitoring (if applicable) will be documented, and any nest buffer zones shall be flagged for avoidance prior to the start of construction.
Impact BIO-4: The proposed project could impact roosting bats if they are present under Bridge #25 or Bridge #27.	**Mitigation Measure BIO-4:** Not less than 30 days before the start of construction-related activities (including but not limited to mobilization and staging, clearing, grubbing, tree removal, vegetation removal, fence installation, demolition, and grading), a roosting bat survey will be conducted within the project site and a 50-foot buffer, including the culverts under Bridge #25 and under Bridge #27, as feasible. The survey may be conducted at any time of year but should be conducted in such a way to allow sufficient time to determine if special-status bats or maternity colonies are present. If no signs of bats are detected during the survey, no further surveys are warranted. If signs of bat occupancy (e.g., guano pellets or urine staining) are detected or if the biologist cannot adequately survey under the bridges, a follow-up dusk emergence survey should be conducted by a qualified biologist. A dusk survey will verify if bats are present and/or will determine the number of bats present, and will also include the use of

	acoustic equipment to determine species of bats present. If an occupied maternity or colony roost is detected, CDFW shall be consulted to determine appropriate measures, such as the establishment of a no-disturbance buffer. The results of the surveys shall be documented.
Impact BIO-5: The proposed project would include excavation in an artificial golf course pond under the jurisdiction of the San Francisco Bay RWQCB and CDFW.	**Mitigation Measure BIO-5:** The project shall apply for coverage under RWQCB Order 2004-0004, which provides General WDRs for projects outside of federal jurisdiction that impact less than 0.2 acres of area subject to Water Board jurisdiction. The City shall also submit a Notification of Lake or Streambed Alteration for the project to CDFW. The project shall not be initiated until all permits required by the RWQCB, and/or CDFW are obtained, or the agency(ies) have confirmed that no permits are required.
Impact CUL-1: Construction of the project could potentially result in disturbance to both recorded and unknown archaeological resources.	**Mitigation Measure CUL-1: Inadvertent Discovery of Archaeological Resources.** The City shall retain a Professional Archaeologist on an "on- call" basis during ground disturbing construction activities to review, identify and evaluate any potential cultural resources that may be inadvertently exposed during construction. The Professional Archaeologist shall review and evaluate any discoveries to determine if they are historical resource(s) and/or unique archaeological resources under the California Environmental Quality Act (CEQA). If the Professional Archaeologist determines that any cultural resources exposed during construction constitute a historical resource and/or unique archaeological resource under CEQA, he/she shall notify the City and other appropriate parties of the evaluation and recommend mitigation measures to mitigate to a less-than significant impact in accordance with California Public Resources Code Section 15064.5. Mitigation measures may include avoidance, preservation in-place, recordation, additional archaeological testing and data recovery among other options. The completion of a formal Archaeological

	Monitoring Plan (A.M.P) and/or Archaeological Treatment Plan (ATP) that may include data recovery may be recommended by the Professional Archaeologist if significant archaeological deposits are exposed during ground disturbing construction. Development and implementation of the A.M.P and ATP and treatment of significant cultural resources will be determined by the City in consultation with any regulatory agencies. A Monitoring Closure Report shall be filed with the City at the conclusion of ground disturbing construction if archaeological and Native American monitoring of excavation was undertaken.
Impact CUL-2: Project excavation could disturb previously unknown buried archaeological resources and/or human remains.	**Mitigation Measure CUL-2: Inadvertent Discovery of Human Remains.** In accordance with Section 7050.5, Chapter 1492 of the California Health and Safety Code and Sections 5097.94, 5097.98 and 5097.99 of the Public Resources Code, if potential human remains are found, the lead agency (City of Mountain View) staff and the Santa Clara County Coroner shall be immediately notified of the discovery. The coroner would provide a determination regarding the nature of the remains within 48 hours of notification. No further excavation or disturbance of the identified material, or any area reasonably suspected to overlie additional remains, can occur until a determination has been made. If the County Coroner determines that the remains are, or are believed to be, of Native American ancestry, the coroner would notify the Native American Heritage Commission within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the Native American Heritage Commission must immediately notify those persons it believes to be the Most Likely Descendant from the deceased Native American. Within 48 hours of this notification, the Most Likely Descendant would recommend to the lead agency their preferred treatment of the remains and associated grave goods.

Impact GEO-1: Project construction could unearth paleontological resources, including fossils.	**Mitigation Measure GEO-1: Stop-Work Provision.** If paleontological resources are discovered during construction, ground-disturbing activities shall halt immediately until a qualified paleontologist can assess the significance of the discovery. Depending on determinations made by the paleontologist, work may either be allowed to continue once the discovery has been recorded, or if recommended by the paleontologist, recovery of the resource may be required, in which ground-disturbing activity within the area of the find would be temporarily halted until the resource has been recovered. If treatment and salvage is required, recommendations shall be consistent with Society of Vertebrate Paleontology guidelines and current professional standards. The City of Mountain View shall ensure that information on the nature, location, and depth of all finds is readily available to the scientific community through university curation or other appropriate means.

2019/20 CITY BRIDGES AND CULVERTS STRUCTURAL INSPECTION AND REPAIRS, PROJECT 20-60

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Chapter 1. Introduction

This Initial Study (IS) evaluates the potential environmental effects of a project to replace two golf cart bridges within the Shoreline Golf Links golf course in Mountain View, California. These proposed activities constitute a project under the California Environmental Quality Act (CEQA).

The City of Mountain View (City) is the CEQA Lead Agency for the project. Responsible agencies include California Department of Fish and Wildlife and the California Regional Water Quality Control Board.

1.1 PROJECT BACKGROUND AND OVERVIEW

The City is implementing a project identified in the 2019/20 City Bridges and Culverts Structural Inspection and Repairs Project 20-60 to replace two bridges, #25 and #27, within the Shoreline Golf Links golf course. These structures were previously reviewed as part of the 2018 Citywide Bridge and Culvert Structural Assessment Program. and were found to have significant deficiencies. The purpose of the project is to replace these structures.

1.2 REGULATORY GUIDANCE

The California Environmental Quality Act (CEQA; Public Resources Code § 21000 et seq.) and the CEQA Guidelines (14 CCR §15000 et seq.) establish the City as the lead agency for the project. The lead agency is defined in CEQA Guidelines Section 15367 as, “the public agency which has the principal responsibility for carrying out or approving a project.” The lead agency is responsible for preparing the appropriate environmental review document under CEQA. The Mountain View City Council serves as the decision-making body for the City and is responsible for adopting the CEQA document and approving the project.

CEQA Guidelines Section 15070 states that a public agency shall prepare a proposed Negative Declaration or a Mitigated Negative Declaration when:

1. The Initial Study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or

2. The Initial Study identifies potentially significant effects, but:

    - Revisions in the project plans made before a proposed Mitigated Negative Declaration and Initial Study are released for public review would avoid the effects or mitigate the effects to a point where no significant effects would occur, and

    - There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

Pursuant to Section 15070, the City has determined a Mitigated Negative Declaration is the appropriate environmental review document for the project.

To ensure that the mitigation measures and project revisions identified in a Mitigated Negative Declaration are implemented, CEQA Guidelines Section 15097(a) requires the City to adopt a program for monitoring or reporting on the revisions which it has required in the project and the

measures it has imposed to mitigate or avoid significant environmental effects. The City shall prepare a Mitigation, Monitoring and Reporting Plan based on the mitigation measures contained in this IS/MND.

1.3 LEAD AGENCY CONTACT INFORMATION

The lead agency for the project is the City of Mountain View. The contact person for the lead agency is:

Marichrisse Hoang, P.E., Associate Civil Engineer
Public Works Department, Public Services Division
City of Mountain View
500 Castro Street
Mountain View, CA 94041
Phone: (650) 903-6991
Email: marichrisse.hoang@mountainview.gov

1.4 DOCUMENT PURPOSE AND ORGANIZATION

The purpose of this document is to evaluate the potential environmental effects of the proposed bridge replacements. This document is organized as follows:

- Chapter 1 – Introduction. This chapter introduces the project and describes the purpose and organization of this document.

- Chapter 2 – Project Description. This chapter describes the project location, area, site, objectives, and characteristics.

- Chapter 3 – Environmental Checklist and Responses. This chapter contains the Environmental Checklist that identifies the significance of potential environmental impacts (by environmental issue) and a brief discussion of each impact resulting from implementation of the proposed project. This chapter also contains the Mandatory Findings of Significance.

- Chapter 4 – Report Preparation. This chapter provides a list of those involved in the preparation of this document.

- Appendices

Chapter 2. Project Description

2.1 PROJECT PURPOSE

The purpose of the project is to remove two structurally deficient bridges located in the Shoreline Golf Links golf course and install new two prefabricated bridges within the vicinity of the existing bridges being removed. The project addressed in this Initial Study is part of a larger project; 2019/20 City Bridges and Culverts Structural Inspection and Repairs, Project 20-60.

2.2 PROJECT LOCATION AND SITE DESCRIPTION

The project site is located within the 73.5-acre Shoreline Golf Links golf course at 2940 North Shoreline Boulevard (APN 116-05-076) in the northern part of the City of Mountain View, California. The golf course is nestled within the 750-acre Shoreline at Mountain View Regional Park and near the San Francisco Bay shoreline (Figure 2-1). Bridge #25 is located at the 1st tee at Pond #4 and Bridge #27 is located at 5th fairway at Pond #4 (Figure 2-2). The project site is mainly open space, grassy minor slopes, existing intermittent trees, an artificial pond, and paved golf cart paths throughout the site.

Shoreline at Mountain View Regional Park includes numerous other amenities and natural features such as the historic Rengstorff House, Shoreline Lake, Michael's restaurant, Mountain View Slough, Permanente Creek, and several hiking and bike trails providing access to the open space and wildlife habitat areas of the adjacent Baylands. Shoreline Amphitheatre is located to the south of the Park. Regional vehicular access to the project site is provided via Interstate 101, located south of the project site, and from Shoreline Boulevard or Amphitheatre Parkway.

Existing Bridge Conditions

The following description of the existing bridge conditions was obtained from the 2018 City-Wide Bridge and Culvert Structural Inspection Report.

City Bridge #25

City Bridge #25 crosses Pond #4 between the Shoreline Golf Links Club House and the 1st tee. The structure consists of a roughly seven foot, four inch wide pathway constructed of asphalt concrete paving, crossing over six (6) large diameter (approximately five-foot, six inch plus) corrugated metal pipe (CMP) culverts. The approaches leading up to the bridge structure (north and south ends) are in good condition. The barrels of the CMP are in poor condition, exhibiting deformation and section loss due to corrosion. The top asphalt deck of the bridge is in poor condition as well, exhibiting large longitudinal cracks and spalls. In addition, the curb is separating from the deck at several locations due to significant settlement. Despite the City's efforts to mitigate the issues, the conditions of the bridge continue to deteriorate and have required the closure of the bridge and pathway to maintain safety.

City Bridge #27

City Bridge #27 is a pedestrian bridge crossing Pond #4 at the 5th Fairway. The structure is a roughly 70-foot long prefabricated steel U-Truss (Pony Truss) bridge providing a roughly six foot wide clear width which allows golf carts to cross the pond. The deck of the bridge is made of timber planks. The planks are held in place by steel angles that have become warped and loose

at multiple locations causing separations between the deck planks. Steel members below the deck were not painted and are showing signs of corrosion. Corrosion with flaking is evident at the steel connection of the bearing seat. The substructure is in good overall condition, with minor erosion along the north abutment.

2.3 PROPOSED PROJECT

Proposed Improvements

The project analyzed in this Initial Study includes the following improvements:

City Bridge #25

The project will construct a new prefabricated steel bridge structure to the northeast of the existing corrugated metal pipe (CMP) causeway structure. The project will include construction of new pile supported abutments, installation of a 152-foot long by 8-foot wide prefabricated steel truss bridge, protection of the causeway CMP structure, removal of existing asphalt concrete (AC) paving along the causeway, excavation to separate the existing causeway from the adjacent land to create an island feature within Pond #4, and other miscellaneous site work necessary for the new bridge and pathway conforms. The new bridge will consist of a prefabricated steel through truss with cross bracing, safety rails, toe plate and lightweight concrete deck. New concrete abutments supported on cast-in-drilled-hole pilings will be installed. Holes will be drilled for the abutments where reinforcing steel cages will be lowered into, then filled with concrete. The new prefabricated bridge will be shipped as one single unit or two units that will need to be assembled at the staging area or bridge site prior to installation. Once assembled, the bridge would be lowered into place with a crane.

City Bridge #27

The project will replace City Bridge #27, a 70-foot long by 6-foot wide golf cart bridge over Pond #4 at the 5th Fairway. The project includes removal of the existing bridge, installation of a 70-foot long by 6.5-foot wide prefabricated truss bridge with cross bracing, safety rails, toe plate, and wood decking, as well as other miscellaneous site work (i.e., new approaches) necessary for the new bridge.

The existing City Bridge #27 is supported on concrete abutments. The existing bridge anchor bolts will be cut off and a crane will lift the old bridge onto a truck and removed from the site. The new prefabricated steel bridge will be delivered to the site and unloaded from the truck. A crane would be used to lower the new bridge onto the existing concrete abutments and new epoxy anchor bolts will be drilled into existing concrete abutments to properly secure the new steel bridge in place. A recycled water utility conduit mounted to the northern side of the existing bridge would be detached from the existing bridge prior to removal of the bridge. The utility conduit would remain in place and then be reattached to the new bridge superstructure once it is installed.

Construction

Construction of the project is anticipated to begin in March 2024 and to be completed by March 2025. The duration anticipated for this project varies between 125 to 225 working days depending on fabrication/procurement time, and upon approval of shop drawings for the prefabricated steel bridges (typical range 16 to 36 weeks). Construction will occur in two phases. The first phase will

consist of the construction/installation, of the new Bridge #25 and clearing of the existing asphalt pathway. This phase is estimated to take at least 10 to 12 weeks for bridge construction, plus additional time for site work. The second phase will consist of the removal and replacement of the new prefabricated steel superstructure for Bridge #27. This phase is estimated to take roughly two weeks for bridge superstructure replacement.

The expected construction equipment type and numbers of days in use for the project are as follows:

Table 2-1: Project Construction Equipment Estimates

Equipment Type	No. on Site	No. of Working Days In Use
Crane	1	1 week
Backhoe/Tractor	2	12 weeks
Bore/Drill Rig	1	1 week

Hours would be limited to 7:30 a.m. to 4:00 p.m. Monday through Friday and no construction on Saturday or Sunday would be allowed unless prior approval is granted, consistent with the City's noise regulations for construction hours (Municipal Code Chapter 8.70). Access to the project site will be from Shoreline Boulevard and the Michael's/Golf Links parking lot.

Source: ESRI 2023

★ Project Location

0 0.225 0.45 0.9 1.35 1.8 Miles

Figure 2-1 Project Location

2019/20 City Bridges and Culverts Structural Inspection and Repairs, Project 20-60

Figure 2-2 Project Vicinity

2019/20 City Bridges and Culverts Structural Inspection and Repairs, Project 20-60

Figure 2-3 Site Photos of City Bridge #25

Photo 1. View of Existing City Bridge #25 looking southeast across the top of the existing deteriorated causeway.[1]

Photo 2. Closeup of existing deterioration Bridge #25.

1. Due to Bridge #25 being closed to pedestrians, no additional photos were taken from different viewpoints.

Figure 2-4 Site Photos of City Bridge #27

Photo 3. View of Existing City Bridge #27 looking south.

Photo 4. View of Existing City Bridge #27 looking northwest.

Figure 2-5 Construction Detail City Bridge #25

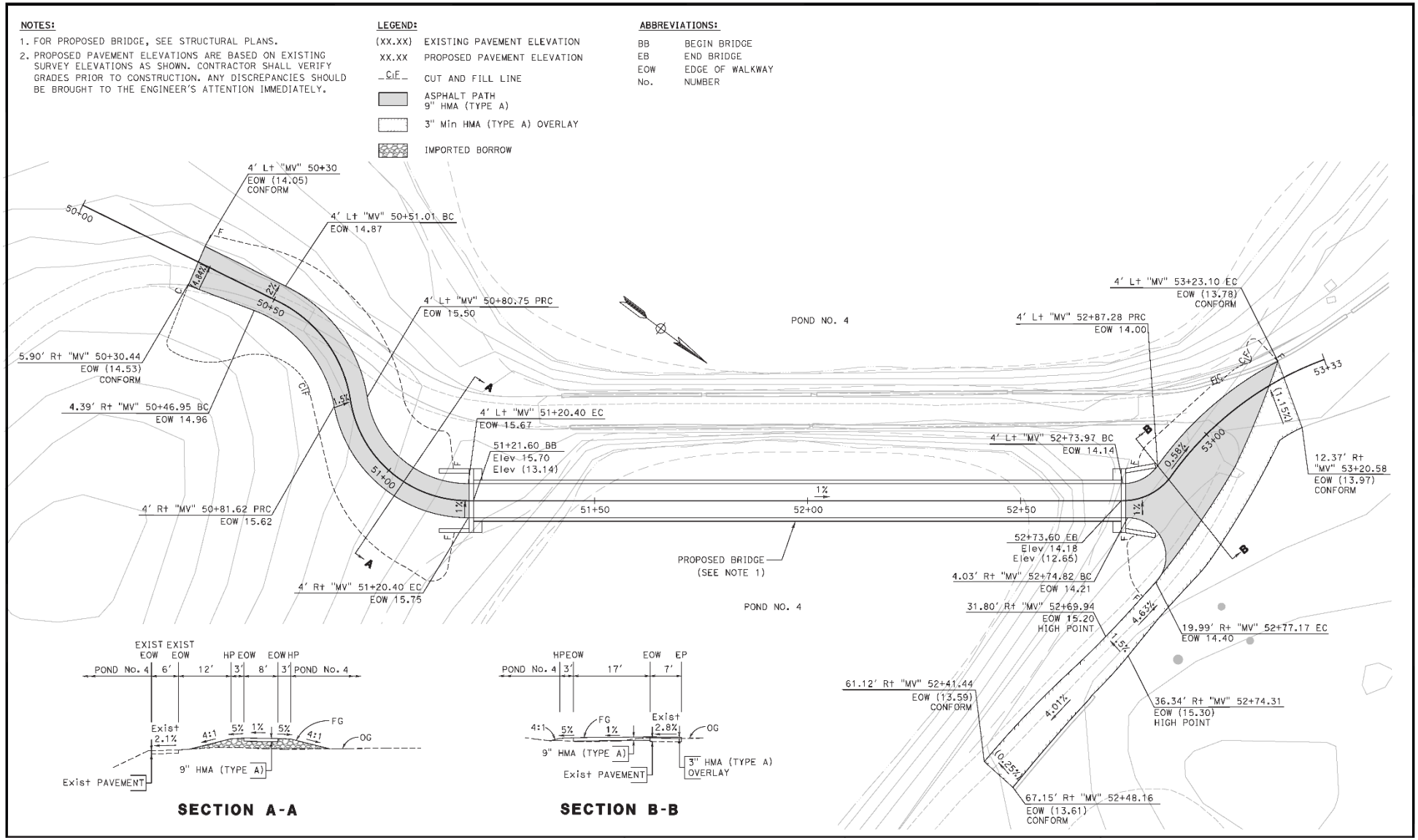
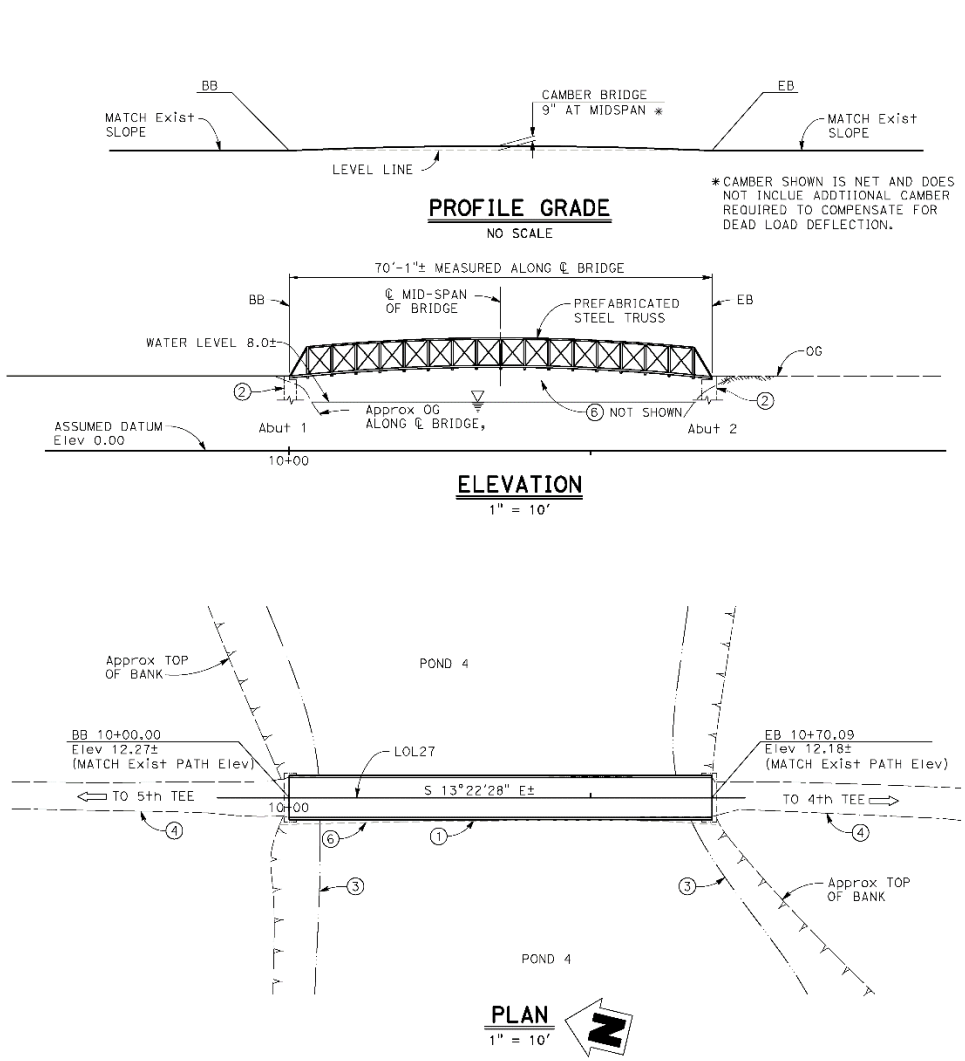


Figure 2-6 Construction Detail City Bridge #27



NOTES:

1. Contractor must verify all existing dimensions, elevations and conditions prior to beginning construction and/or ordering materials. Any discrepancies must be brought to the attention of the Engineer immediately.
2. Contractor must coordinate all embedded item locations with Bridge Manufacturer Drawings.
3. Prefabricated length of bridge to be verified with existing foundations.
4. Bridge safety railing must not allow a sphere 4" or larger to pass through.
5. No construction activity may occur within the banks of Pond #4.
6. Contractor must not allow any construction material or equipment to enter Pond #4.
7. Construction activity for the bridge replacement must be confined to the area immediately adjacent to the existing structure.
8. The prefabricated steel truss must match the existing bride aesthetic, including use of tubular steel members, cross bracing and toe plates.

① Remove and replace existing steel truss superstructure

② Existing bridge foundation to be reused

③ Existing edge of water

④ Existing asphalt pavement

⑤ Install synthetic fabric wearing surface over wood deck

⑥ Existing utility conduit to be protected and attached to new steel truss superstructure

LEGEND:
± Indicates Existing Elevation or Dimension.

PLAN CHECK SET/NOT FOR CONSTRUCTION (11/10/22)

2.4 STANDARD SPECIFICATIONS

The project plans contain the following project-specific and City of Mountain View Standard specifications (Provisions and Standard Details - July 2019) that will be applied to the project to help avoid or reduce potential project impacts, as shown on Table 2-2. Because these are included on the project plans or specifications they are considered part of the project and not mitigation.

Table 2-2: Specifications Included as Part of the Project

Topic	***Best Management Practice /Specifications***
Dust Control – Construction Notes Specification 7	At all times during construction and until final completion and acceptance of the work, the contractor shall prevent the formation of an airborne dust nuisance in such a manner that it will contain dust particles to the immediate surface of the work per Section 5-10 of the Standard Provisions. The contractor shall perform such treatment within 2 hours after notification by the City that an airborne nuisance exists.
Maintenance of Work Site – Construction Notes Specification 10	The contractor shall keep the street and work site clean and free from rubbish and debris per Section 5-15 of the Standard Provisions. This provision requires preventing spillage on haul routes, cleaning up spillage, sweeping all streets of mud and dirt and debris that are the result of the contractor's work and keeping the work site in a clean and neat appearance. Any spillage on haul routes shall be immediately removed and cleaned up.
Compliance with environmental documents – Construction Notes Specification 15	The contractor shall comply with the provisions of all permits, licenses or other authorizations applicable to the work with respect to the Environmental Quality Act per Section 7-02 of the Standard Provisions.
Maintain traffic control devices - Construction Notes Specification 17	The contractor shall install and maintain fences, barriers, lights and signs that are necessary to give adequate warning to the public at all times per Section 7-05 of the Standard Provisions in accordance with the California Manual on Uniform Traffic Control Devices.
Hazardous Materials and Waste – Construction Notes Specification 19	All work shall be conducted in a manner which prevents the release of hazardous materials or hazardous waste to the soil or groundwater, and minimizes the discharge of hazardous materials, hazardous wastes, polluted water and sediments to the storm drain system per Section 7-08.01 of the Standard Provisions.
Construction Noise - Construction Notes Specification 21	Noise working hour restrictions. In order to limit disturbing noises, construction work shall occur only between the hours of 7:30 AM and 4:00 PM, Monday through Friday, excluding holidays. Work outside of these hours is prohibited, unless the City grants an exception. Exceptions will be considered only when, in the opinion of the Public Works Director, construction

	during normal construction hours would inconvenience the public and neighboring residents more than working outside of these hours. Exceptions will not be granted merely to expedite the construction work.
Discharge to curbside gutter, storm sewer, storm drain or natural outlets. Mountain View Municipal Code Chapter 35.31.3.1	It shall be unlawful to discharge or cause a threatened discharge to any curbside gutter, storm sewer, storm drain gutter, creek or natural outlet any domestic sewage, sanitary sewage, industrial wastes or polluted waters except where permission is granted by the fire chief or his designee. Unlawful discharges to storm drains shall include, but are not limited to discharges from: toilets, sinks, commercial or industrial processes, cooling systems, air compressors, boilers, fabric or carpet cleaning, equipment cleaning, vehicle cleaning, swimming pools, spas, fountains, const ruction activities (e.g., painting, paving, concrete placement, saw cutting, grading}, painting, and paint stripping, unless specifically permitted by a discharge permit or unless exempted pursuant to regulations established by the fire chief or his designee. Additionally, it shall be unlawful to discharge any pollutants or waters containing pollutants that would contribute to violations of the City's stormwater discharge permit or applicable water quality standards.
Mountain View Municipal Code Chapter 35.32.2.1 Discharge Permit	It shall be unlawful for any person or organization to discharge or cause to be discharged any industrial wastes or polluted water whatsoever directly or indirectly into the sewer system without first obtaining a permit for discharge. The discharge applicant shall not commence discharge prior to permit issuance. Furthermore, it shall be unlawful for any person to discharge any industrial wastes or polluted water in excess of the quantity or quality limitations, or to violate any other requirement set forth in this article or in a permit for discharge.
Standard Provisions and Standard Details, Section 5-10, Dust Control.	Attention is directed to Section 30, “Water for Construction,” of these Standard Provisions. At all times during construction and until final completion and acceptance of the Work, the Contractor shall prevent the formation of an airborne dust nuisance by oiling or watering as required by the Engineer, to treat the site of the Work in such a manner that it will confine dust particles to the immediate surface of the Work. The Contractor shall perform such treatment within two (2) hours after notification by the Engineer that the airborne nuisance exists. If the Contractor fails to remove the nuisance within two (2) hours, the City may order that the treatment of the site be done by City personnel and equipment or by others. All expenses incurred in the performance of this treatment shall be charged to the Contractor. The cost shall be paid for by the Contractor separately or be deducted from the periodic payments to the Contractor as such costs are incurred by the City.
Standard Provisions and Standard Details,	In compliance with State and Federal regulations on construction storm water management and nonpoint source pollution control, no

Section 7-08 Disposal of Materials, 7-08.01 Nonpoint Source Pollution Control	pollutants will be allowed to enter the storm drainage system. The Contractor shall be responsible for containing and removing any waste from the Contractor's construction operation using the appropriate Best Management Practices (BMP) and shall properly dispose the waste from the site. The Contractor shall be responsible for cleaning catch basins if solid and liquid waste material originating from the Contractor's operation enters the storm drain. Violation of this provision shall cause the City to issue a stop-work notice and take necessary action to require the Contractor to correct and comply with the regulations. All costs related to the stop-work action and corrective work to come into compliance shall be fully borne by the Contractor. All construction projects occurring within City limits shall be conducted in a manner which prevents the release of hazardous materials or hazardous waste to the soil or groundwater, and minimizes the discharge of hazardous materials, hazardous wastes, polluted water and sediments to the storm drain system in accordance with City Code Section 35.32.101(T). Practices which may be implemented to meet the intent of this requirement are described in the City of Mountain View's document "Stormwater Pollution Prevention Guidelines for Construction Projects" and "It's in the Contract! (but not in the Bay) - Pollution prevention specifications for construction contractors and maintenance crew supervisors working in the City of Mountain View."

2.5 REQUIRED APPROVALS

The City is both the proponent and the Lead Agency for the proposed project. The proposed project requires permit approval from the following agencies:

- San Francisco Bay Regional Water Quality Control Board (RWQCB), coverage under RWQCB Order 2004-000 (Waste Discharge Requirements);

- California Department of Fish and Wildlife (CDFW), Notification of Lake or Streambed Alteration

Chapter 3. Environmental Checklist and Responses

1. **Project Title:** 2019/20 City Bridges and Culverts Structural Inspection and Repairs, Project 20-60.

2. **Lead Agency Name and Address**: City of Mountain View, 500 Castro Street, Mountain View, CA 94041.

3. **Contact Person and Phone Number:** Marichrisse Hoang, P.E., Associate Civil Engineer, Public Works Department, Public Services Division, City of Mountain View, 500 Castro Street, Mountain View, CA 94041, Phone: (650) 903-6991, Email: marichrisse.hoang@mountainview.gov

4. **Project Location:** 2940 North Shoreline Boulevard, Mountain View, California 94043

5. **Project Sponsor's Name and Address:** Same as the Lead Agency

6. **General Plan Designation:** Regional Park

7. **Zoning:** PF-Public Facility

8. **Description of the Project:** The project proposes to replace two golf cart bridges within the Shoreline Golf Links golf course in the City of Mountain View.

9. **Surrounding Land Uses and Setting:** Adjacent land uses include office/office parks, open space/recreation, and the Shoreline Amphitheatre.

10. **Other public agencies whose approval is required:** San Francisco Bay Regional Water Quality Control Board and the California Department of Fish and Wildlife.

11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?** The City of Mountain View has not received a request from Native American tribes for consultation pursuant to Public Resources Code section 21080.3.1. Letters and/or emails were sent by Basin Research Associates in August 2023 to the nine locally knowledgeable Native American individuals/organizations identified by the NAHC to determine if any potential resources of interest to the Native American community were present. No responses were received.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

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

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

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

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

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

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

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

Marichrisse Hoang
Signature

11/03/2023
Date

Marichrisse Hoang
Name (print)

Associate Civil Engineer
Title

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in 5. below, may be cross-referenced).

5. Earlier analyses may be used where, pursuant to the tiering, program. EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:

    a. Earlier Analysis Used. Identify and state where they are available for review.

    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

    c. Mitigation Measures. For effects that are "Less Than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources. A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9. The explanation of each issue should identify:

    a. the significance criteria or threshold, if any, used to evaluate each question; and

    b. the mitigation measure identified, if any, to reduce the impact to less than significance.

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3.1 AESTHETICS

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

3.1.1 Environmental Setting

The project proposes to replace two existing golf cart bridges that are located within the Shoreline Golf Links Golf Course. The project site is currently developed as a golf course, with open space, minor slopes, existing intermittent trees, an artificial pond, and paved trails throughout the site. The project site is surrounded by the Mountain View Slough to the north, the Shoreline Amphitheatre to the south, a public park with a kite flying area to the east, and the Shoreline Lake to the west. Various hiking trails surround the project site to the south, east, and west.

3.1.2 Regulatory Setting

Local Regulations

<u>City of Mountain View 2030 General Plan</u>

The Mountain View 2030 General Plan (City of Mountain View, 2012) contains the following policies related to community character and provide design guidance:

> *LUD 9.3: Enhanced public space.* Ensure that development enhances public spaces through these measures:

- Encourage strong pedestrian-oriented design with visible, accessible entrances and pathways from the street.
- Encourage design compatibility with surrounding uses.
- Encourage building articulation and use of special materials to provide visual interest.
- Promote and regulate high-quality sign materials, colors and design that are compatible with site and building design.
- Encourage attractive water-efficient landscaping on the ground level.

LUD 9.5: View preservation. Preserve significant views throughout the community.

LUD 9.6: Light and glare. Minimize light and glare from new development.

LUD 6.1: Neighborhood character. Ensure that new development in or near residential neighborhoods is compatible with neighborhood character.

3.1.3 Discussion

Would the project:

a) Have a substantial adverse effect on a scenic vista?

Less than Significant Impact. For purposes of determining significance under CEQA, a scenic vista is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the public. The project is located on a golf course that is within a regional park. The golf course offers expansive views of grassy hills and lush vegetation around the artificial pond. The project would result in temporary visual changes during construction due to the presence of construction vehicles, cranes, signage and debris. These temporary visual changes would be visible to golf players and visitors of the golf course. However, these visual changes would be temporary. Additionally, the replacement bridges would conform to the existing visual landscape and the overall visual quality of the project site would remain substantially unchanged. This impact would be less than significant.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The project site is not visible from an officially designated state scenic highway as there are none in the area (Caltrans, 2019). Therefore, no impact would occur.

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

Less than Significant Impact. As noted above, the project proposes to replace two existing structurally deficient bridges within a golf course that is within a regional park. The duration of

construction of the project would temporarily disrupt visual character due to the presence of construction vehicles, cranes, signage and debris. Although the proposed replacement for the existing asphalt pathway (City Structure #25) will be a prefabricated steel bridge structure that will change the appearance of the pathway, the new bridge will be consistent with the other pedestrian/golf cart bridges on the golf course and within the park. In contrast to the existing bridges, the new bridges would enhance surrounding visual quality as there would be no visible deterioration. Therefore, no permanent significant change or degradation of the existing visual character or quality of the site is anticipated. This impact would be less than significant.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Impact. No new lighting or change in lighting is proposed as part of the project.

3.2 AGRICULTURAL AND FOREST RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:*				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program. of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒
*In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				

3.2.1 Environmental Setting

The project is located in the City of Mountain View in an area designated as Urban and Built-up Land by the California Department of Conservation Farmland Mapping and Monitoring Program. The project site is currently developed with a golf course and is zoned PF-Public Facility. There is no land near the project site that is used for agricultural purposes.

3.2.2 Regulatory Setting

State Regulations

Farmland Mapping and Monitoring Program

The California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) assesses the location, quality, and quantity of agricultural land and conversion of these lands over time. Agricultural land is rated according to soil quality and irrigation status. The best quality land is called Prime Farmland. In CEQA analyses, the FMMP classifications and published county maps are used, in part, to identify whether agricultural resources that could be affected are present on or near the project site.

Williamson Act Program

The Williamson Act, also known as the California Land Conservation Act of 1965, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value (CDC 2023).

3.2.3 Discussion

Would the project:

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

b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

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

d) Result in the loss of forest land or conversion of forest land to non-forest use?

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

No Impact. (Responses a – e). There are no forest lands or agricultural lands on or near the project site, which is within a regional park. Therefore, the project would not convert or cause the conversion of any farmland or forest land to a non-agricultural/non-forest use. The proposed project would not impact Prime Farmland, Unique Farmland, Farmland of Statewide Importance, forest land, or land under a Williamson Act contract. Thus, the project would not result in impacts to any agricultural or forestry resources.

3.3 AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:*				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐
*Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.				

3.3.1 Environmental Setting

Air quality is a function of pollutant emissions and topographic and meteorological influences. Physical atmospheric conditions such as air temperature, wind speed and topography influence air quality.

Criteria Air Pollutants

Federal, state, and local governments control air quality through the implementation of laws, ordinances, regulations, and standards. The federal and state governments have established ambient air quality standards for "criteria" pollutants considered harmful to the environment and public health. National Ambient Air Quality Standards (NAAQS) have been established for carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), ozone (O_3), fine particulate matter (particles 2.5 microns in diameter and smaller, or $P.M._{2.5}$), inhalable coarse particulate matter (particles 10 microns in diameter and smaller, or $P.M._{10}$), and sulfur dioxide (SO_2). California Ambient Air Quality Standards (CAAQS) are more stringent than the national standards for the pollutants listed above and include the following additional pollutants: hydrogen sulfide (H_2S), sulfates (SO_x), and vinyl chloride. In addition to these criteria pollutants, the federal and state governments have classified certain pollutants as hazardous air pollutants (HAPs) or toxic air contaminants (TACs), such as asbestos and diesel particulate matter (DPM).

San Francisco Bay Area Air Basin

The proposed project is located in the San Francisco Bay Area Air Basin (SFBAAB), an area of non-attainment for both the 1-hour and 8-hour state ozone standards, and the national 24-hour $P.M._{2.5}$ standard (BAAQMD 2023b, Table 5-1 SFBAAB Designation Status). The SFBAAB is

comprised of nine counties: all of Alameda, Contra Costa, Santa Clara, San Francisco, San Mateo, Marin, Napa, and the southern portions of Solano and Sonoma.

The San Francisco Bay Area is generally characterized by a Mediterranean climate with warm, dry summers and cool, damp winters. During the summer daytime high temperatures near the coast are primarily in the mid-60s, whereas areas farther inland are typically in the high-80s to low-90s. Nighttime low temperatures on average are in the mid-40s along the coast and low to mid-30s inland.

The Mediterranean climate is seen along most of the West Coast of North America and is primarily due to a (typically dominating) high-pressure system, located off the west coast of North America, over the Pacific Ocean. During the summer and fall months the high-pressure ridge is at its strongest and therefore provides a more stable atmosphere. Warm temperatures and a stable atmosphere associated with the high-pressure ridge provide favorable conditions for the formation of photochemical pollutants (e.g., O3 and secondary particulates (e.g., nitrogen oxides (NOx) and SO2).

Varying topography and limited atmospheric mixing throughout the SFBAAB restrict air movement resulting in reduced dispersion and higher concentrations of air pollutants. The SFBAAB is most susceptible to air pollution during the summer when cool marine air flowing through the Golden Gate can become trapped under a layer of warmer air (a phenomenon known as an inversion) and is prevented from escaping the valleys and bays created by the Coast Ranges.

Existing Emissions Sources

The proposed project would be located at the Shoreline Golf Links golf course on Shoreline Boulevard. The golf course generates emissions primarily from vehicle trips and operations at the course itself, including emissions from landscape equipment and consumer products (e.g., cleaning supplies). These existing emissions contribute to local and regional air quality conditions.

Sensitive Receptors

A sensitive receptor is defined by the Bay Area Air Quality Management District (BAAQMD) as a facility or land use that include members of the population that are particularly sensitive to the effects of air pollution, such as children, seniors, or people will illnesses (BAAQMD 2023b, Appendix F) These typically include residences, hospitals, and schools. The proposed project is located at the Shoreline Golf Links golf course at Shoreline Regional Park. This type of active recreational facility does not include permanent receptors; however, parks are generally considered to be a land use sensitive to air pollution as sensitive receptors may visit the park for recreation purposes. Besides golf course and park visitors, there are other no sensitive receptors within 1,000 feet of the work areas.

3.3.2 Regulatory Setting

State Regulations

CARB In-Use Off-Road Diesel Vehicle Regulation

CARB's In-Use Off-Road Diesel Equipment regulation is intended to reduce emissions of NOx and P.M. from off-road diesel vehicles, including construction equipment, operating within

California. The regulation imposes limits on idling; requires reporting equipment and engine information and labeling all vehicles reported; restricts adding older vehicles to fleets; and requires fleets to reduce their emissions by retiring, replacing, or repowering older engines or installing exhaust retrofits for P.M.. The requirements and compliance dates of the off-road regulation vary by fleet size, and large fleets (fleets with more than 5,000 horsepower) must meet average targets or comply with Best Available Control Technology requirements beginning in 2014. CARB has off-road anti-idling regulations affecting self-propelled diesel-fueled vehicles 25 horsepower and up. The off-road anti-idling regulations limit idling on applicable equipment to no more than five minutes, unless exempted due to safety, operation, or maintenance requirements.

CARB On-Road Heavy-Duty Diesel Vehicle (In-Use) Regulation

CARB's On-Road Heavy-Duty Diesel Vehicles (In-Use) regulation (also known as the Truck and Bus Regulation) is intended to reduce emission of NOX, P.M., and other criteria pollutants generated from existing on-road diesel vehicles operating in California. The regulation applies to nearly all diesel-fueled trucks and buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds that are privately or federally owned, and for privately and publicly owned school buses. Heavier trucks and buses with a GVWR greater than 26,000 pounds must comply with a schedule by engine model year or owners can report to show compliance with more flexible options. Fleets complying with the heavier trucks and buses schedule must install the best available P.M. filter on 1996 model year and newer engines, and replace the vehicle eight years later. Trucks with 1995 model year and older engines had to be replaced starting in 2015. Replacements with a 2010 model year or newer engine meet the final requirements, but owners can also replace the equipment with used trucks that have a future compliance date (as specified in regulation). By 2023, all trucks and buses must have at least 2010 model year engines with few exceptions.

Regional Regulations

Bay Area Air Quality Management District

The BAAQMD is the agency primarily responsible for maintaining air quality and regulating emissions of criteria and toxic air pollutants within the SFBAAB. The BAAQMD carries out this responsibility by preparing, adopting, and implementing plans, regulations, and rules that are designed to achieve attainment of state and national air quality standards. The BAAQMD is the agency primarily responsible for maintaining air quality and regulating emissions of criteria and toxic air pollutants within the SFBAAB. The BAAQMD carries out this responsibility by preparing, adopting, and implementing plans, regulations, and rules that are designed to achieve attainment of state and national air quality standards. The BAAQMD currently has 14 regulations containing more than 100 rules that control and limit emissions from sources of pollutants. Table 3-1 summarizes the major BAAQMD rules and regulations that may apply to the proposed project.

Table 3-1: Potentially Applicable BAAQMD Rules and Regulations		
Regulation	**Rule**	**Description**
1 – General Provisions and Definitions	1 – General Provisions and Definitions	301 – Public Nuisance: Establishes that no person shall discharge quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number or person or the public; or which endangers the comfort, repose, health, or safety of any such person or the public.
6 – Particulate Matter	1 – General Requirements	Limits visible particulate matter emissions.
6 – Particulate Matter	6 – Prohibition of Trackout	Limits the quantity of particulate matter through control of trackout of solid materials on paved public roads from construction sites that are greater than one acre in size.
8 – Organic Compounds	3 – Architectural Coatings	Sets forth VOC limitations and requirements for architectural coatings. Traffic marking coatings are required to meet a standard of 100 g/L.
Source: BAAQMD, 2023c		

On April 29, 2017, the BAAQMD adopted its Spare the Air-Cool the Climate 2017 Clean Air Plan (Clean Air Plan). The 2017 Clean Air Plan updates the most recent Bay Area ozone plan, the 2010 Clean Air Plan, in fulfillment of state ozone planning requirements. The Plan focuses on the three following goals:

- Attain all state and national air quality standards.
- Eliminate disparities among Bay Area communities in cancer health risk from toxic air contaminants; and
- Reduce Bay Area GHG emissions to 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050.

The plan includes 85 distinct control measures to help the region reduce air pollutants and has a long-term strategic vision which forecasts what a clean air Bay Area will look like in the year 2050. The control measures aggressively target the largest source of GHG, ozone pollutants, and particulate matter emissions – transportation. The 2017 Clean Air

Plan includes more incentives for electric vehicle infrastructure, off-road electrification projects such as Caltrain and shore power at ports, and reducing emissions from trucks, school buses, marine vessels, locomotives, and off-road equipment (BAAQMD 2017).

Local Regulations

City of Mountain View General Plan

Chapter 5, Infrastructure and Conservation, of the Mountain View 2030 General Plan (City of Mountain View, 2012) includes the following goals and policies to address air quality that may be applicable to the proposed project (City of Mountain View, 2012):

Goal INC-20: Clean, breathable air and strongly controlled city sources of air pollution.

Policy INC 20.6: Air quality standards. Protect the public and construction workers from construction exhaust and particulate emissions.

Policy INC 20.7: Protect sensitive receptors. Protect the public from substantial pollutant concentrations.

Goal MOB-9: Achievement of state and regional air quality and greenhouse gas emission reduction targets.

3.3.3 Discussion

Would the proposed project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

No Impact. The proposed project would not conflict with nor obstruct implementation of the BAAQMD 2017 Clean Air Plan. The 2017 Clean Air Plan includes increases in regional construction, area, mobile, and stationary source activities, and operations in its emission inventories and plans for achieving attainment of air quality standards. Chapter 5 of the 2017 Clean Air Plan contains the BAAQMD's strategy for achieving the plan's climate and air quality goals. The proposed project would not result in a change in land use, population, or vehicle miles traveled. The 2017 Clean Air Plan's focus on long-term air quality improvement would account for the proposed project's short-term construction emissions. Thus, the proposed project would not conflict with the 2017 Clean Air Plan.

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

Less Than Significant Impact. The proposed project involves the deconstruction and off-haul of two existing bridges and the installation of two new bridges. These activities would generate equipment and vehicle exhaust and fugitive dust emissions. Construction activities would include demolition, new bridge construction, paving, and potentially architectural coating phases. The project's potential construction emissions were estimated using the California Emissions Estimator Model (CalEEMod), Version 2022.1. The modeling is based on default CalEEmod assumptions, with the following project-specific modifications:

- **Construction Equipment:** CalEEMod default assumptions for construction equipment were modified to reflect project-specific construction activities, phasing, and timelines, as provided by the City.
- **Bridge Removal and Decommissioning Activities:** Approximately 10 tons of debris off-haul was added to the model to account for demolition and removal and decommissioning of the existing bridges and vegetation.
- **Fugitive Dust Control Measures:** Fugitive dust control measures consistent with the City's Standard Specifications were incorporated in the construction emissions modeling. Specifically, the model assumes the site would be watered twice a day, reducing fugitive dust emissions by 36 percent.

The project's estimated construction criteria air pollutant emissions are presented in Table 3-2. Refer to Appendix A for detailed CalEEMod assumptions and output files.

Table 3-2: Estimated Project Construction Criteria Air Pollutant Emissions

Year[A]	Pollutant Emissions (Tons Per Year)						
	ROG	NO_x	CO	$P.M._{10}$		$P.M._{2.5}$	
				Dust	Exhaust	Dust	Exhaust
2024	0.1	0.6	0.7	<0.1	<0.1	<0.1	<0.1
Year[A]	**Pollutant Emissions (Average Pounds per Day)[B]**						
	ROG	**NO_x**	**CO**	**$P.M._{10}$**		**$P.M._{2.5}$**	
				Dust	**Exhaust**	**Dust**	**Exhaust**
2025?	0.3	3.1	3.8	0.1	0.1	<0.1	0.1
BAAQMD CEQA Threshold	**54**	**54**	**--**	**BMPs**	**82**	**BMPs**	**82**
Potentially Significant Impact?	**No**	**No**	**No**	**No**	**No**	**No**	**No**

Source: BAAQMD 2023b, MIG 2023. See Appendix A.

(A) Emissions estimates assume construction begins in March 2024 and is complete by March 2025.

(B) Average daily emissions estimates are based on 106 total active construction days.

As shown in Table 3-2, construction emissions associated with the proposed project would be below all BAAQMD significance thresholds for criteria air pollutant emissions. For all projects, the BAAQMD recommends implementation of nine "Basic Best Management Practices for Construction-Related Fugitive Dust Emissions" to reduce construction fugitive dust emissions levels; these basic measures are also used to meet the BAAQMD's best management practices (BMPs) threshold of significance for construction fugitive dust emissions (i.e., the implementation of all basic construction measures renders fugitive dust impacts a less than significant impact). As mentioned in Section 2.4, the proposed project would incorporate the City's Standard Provisions and Details, including Section 5-10 Dust Control, which states the contractor shall prevent the formation of an airborne dust nuisance in such a manner that it will contain dust particles to the immediate surface of the work. Thus, the City's dust control requirements are commensurate with the BAAQMD's guidelines. The proposed project's potential construction emissions, therefore, would be less than significant.

Once constructed, the proposed project would not change the operation of the golf course and, therefore, would not increase operations-related emissions (i.e., the project would not change visitor patterns, landscaping operations, etc.). For this reason, operational emissions were not estimated for the project. This impact would be less than significant.

Cumulative Impact Discussion

The SFBAAB is an area of non-attainment for national and state ozone, state PM_{10}, and national and state $PM_{2.5}$ air quality standards (BAAQMD 2023b Table 5-1). As shown in Table 3-2, the BAAQMD has established project-level thresholds of significance for criteria air pollutants. The BAAQMD's project-level thresholds are also the levels at which the BAAQMD has determined that a project's individual contribution to the cumulative impact of non-attainment is cumulatively considerable (BAAQMD 2023b). As discussed under impact discussions a) and b) above, the proposed project does not conflict with the BAAQMD's *2017 Clean Air Plan* and would not result in construction or operational emissions that exceed BAAQMD thresholds of significance. As such, the proposed project would not result in a cumulatively considerable contribution to regional air quality impacts.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. There are no residences, schools, hospitals etc. that could be affected by construction emissions within 1,000 feet of the project site. Emissions associated with the proposed project would not affect golf course attendants or staff because the project does not involve substantial equipment operations or activities for a prolonged period of time. Emissions would be intermittent over two phases, and different golf course visitors and staff would come and go from the golf course on a daily basis. Thus, potential sensitive receptors would not be continuously exposed to construction emissions. This impact would be less than significant.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant Impact. The proposed project could generate odors from the following sources and activities:

- Evaporation of gasoline, oil, and other fluids that can escape from pumps, hoses, and tanks in construction equipment and motor vehicles (e.g., haul trucks, tow trucks, and other vehicles).

- Off-gassing of volatile compounds from asphalt surfaces (e.g., paving of pathways to and from the bridges).

- Emissions from heavy-duty construction equipment exhaust pipes (e.g., a loader, backhoe, grader, etc.).

Potential odors may or may not, depending on the individual's olfactory sensitivity, be perceived as objectionable, offensive, a nuisance, etc. Odors are generally regarded as an annoyance rather than a health hazard. An odor that is offensive to one person may not be offensive to a different person, and unfamiliar odors are more easily detected and are more likely to cause complaints than familiar odors, as a person can become desensitized to almost any odor over time (known as odor fatigue). In general, the quality and intensity of an odor influence a person's reaction. The quality of an odor indicates the nature of the smell experience (e.g., flowery, putrid).

The intensity of an odor depends on its concentration in the air. When an odor sample is progressively diluted, the odor concentration decreases. As this occurs, the odor intensity weakens and eventually becomes low enough where the odor is no longer detectable.

Construction activities associated with the proposed project would occur at a park (golf course) where there are no residences within 1,000 feet of the work sites. Visitors to the golf course would move about the park and would not be continuously exposed to potential construction-related odors. For these reasons, the construction of the proposed project would not generate objectionable odors that could affect a substantial number of people. This impact is less than significant.

3.4 BIOLOGICAL RESOURCES

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

3.4.1 Environmental Setting

The project site is on a golf course vegetated with mowed turf and landscape trees. There is a parking lot and buildings to the north of the project site. There are other recreational land uses within the Shoreline at Mountain View Regional Park to the east, west, and south, also vegetated with mowed turf and landscape trees or unmowed nonnative annual grasslands, and bisected by roads, trails, and parking lots. Permanente Creek is located about 100 feet to the east of Pond #4, and diked Baylands are about 0.3 mile to the north. A large artificial lake (Shoreline Lake) is located about 0.2 mile northwest of the pond. There is commercial and industrial development surrounding the Mountain View Regional Park to the east, south, and west, about 0.4 to 0.6 mile from the project site.

Existing Land Cover Types and Vegetation

Land cover types at the project site include open water (Pond #4) and the surrounding golf course. Vegetation on Bridge #25 includes English ivy (*Hedera helix*) and cattails (*Typha* sp.). Bridge #27 is not vegetated but has cattails growing adjacent to it. The shoreline of the pond is vegetated with native wetland species such as cattails, bulrush (*Schoenoplectus* sp.), tall flatsedge (*Cyperus eragrostis*), and willows (*Salix* sp.), and nonnative herbaceous species such as black mustard (*Brassica nigra*), Italian thistle (*Carduus pycnocephalus*), bristly oxtongue (*Helminthotheca echioides*), curlydock (*Rumex crispus*), and wild oats (*Avena* sp.). Nonnative pepper trees (*Schinus molle*) and native coyote brush (*Baccharis pilularis*) is also present at some locations along the pond. The golf course is vegetated with some type of turf grass, but the species was not apparent because it is regularly mowed.

Wildlife

The City conducted two nesting bird surveys for the proposed project in July 2023 (Higgins, 2023a in Appendix B). One survey was conducted July 18th and a second survey was conducted July 21st, both surveys were conducted early in the morning (start time was 7am July 18th and 6am July 21st) when bird species are more active. During the survey on July 18th, a total of 26 species were observed with 95 individuals, while on July 21st, a total of 23 species and 202 individuals were observed. Breeding activity was observed for 9 species: American coot (*Fulica americana*), black phoebe (*Sayornis nigricans*), common gallinule (*Gallinula galeata*), great-tailed grackle (*Quiscalus mexicanus*), green heron (*Butorides virescens*), hooded oriole (*Icterus culcullatus*), marsh wren (*Cistothorus palustris*), pied-billed grebe (*Podilymbus 35odiceps*), and song sparrow (*Melospiza melodia*). Breeding activity varied from a nest with eggs to active feeding of young to observations of recently fledged young.

A site visit was also conducted for the project by MIG biologist Megan Kalyankar in July 2023. The following bird species were observed within or adjacent to Pond #4 during the site visit: American coot, Canada goose (*Branta canadensis*), cliff swallow (*Petrochelidon pyrrhonota*), Forster's tern (*Sterna forsteri*), great-tailed grackle, green heron, mallard (*Anas platyrhynchos*), and red-winged blackbird (*Agelaius phoeniceus*). California ground squirrels (*Otospermophilus beecheyi*) were the only mammals observed at the project site. Two invertebrate species were observed: Anise swallowtail (*Papilio zelicaon*) and a dragonfly (Odonata order).

Other wildlife that commonly occurs in urban environments are also likely present in the project area. Some examples may include native species such as the California slender salamander (*Batrachoseps attenuatus*), western fence lizard (*Sceloporus occidentalis*), American robin (*Turdus migratorius*), California scrub jay (*Aphelocoma californica*), northern raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*); and the non-native species such as house sparrow (*Passer domesticus*), rock pigeon (*Columba livia*), fox squirrel (*Sciurus niger*), Virginia opossum (*Didelphis virginiana*), and brown rat (*Rattus norvegicus*).

Special-Status Species

For the purposes of this document, special-status species include those plant and animals listed, proposed for listing or candidates for listing as threatened or endangered by the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS) under the Federal Endangered Species Act (FESA); those listed or proposed for listing as rare, threatened or endangered by the California Department of Fish and Wildlife (CDFW) under the California Endangered Species Act (CESA); animals designated as California Fully Protected (CFP) or

California Species of Special Concern (CSSC) by the CDFW; and plants listed as California Rare Plant Rank (CRPR) 1A, 1B, 2, 3 and 4 of the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (Inventory).

The potential occurrence of special-status plant and animal species at the project site was initially evaluated by developing a list of special-status species that are known to or have the potential to occur in the vicinity of the study area based on a 9-quad (U.S. Geological Survey 7.5 minute quadrangle where the project is located and the eight surrounding quads) search of current database records (e.g., California Natural Diversity Database [CNDDB] and CNPS Electronic Inventory records), and review of the USFWS list of federal endangered and threatened species (using their online tool Information for Planning and Consultation or IPaC), NMFS' Critical Habitat Website (NMFS, 2023a), and NMFS' Essential Fish Habitat (EFH) Mapper (NMFS, 2023b). The potential for occurrence of those species included on the list was then evaluated based on the habitat requirements of each species relative to the habitat conditions documented in the project area. If there are no documented occurrences within 5 miles of the project area, if there is clearly no suitable habitat present, and/or if the project area is clearly outside of the expected range of the species, these species were eliminated from further consideration and are not discussed further. All remaining species were then evaluated for their potential to occur in or near the project site based on the presence of suitable habitat and nearby occurrences.

Special-status Plants

A total of forty-six (46) special-status plant species occur or historically occurred in the project region according to the CNPS Inventory (CNPS, 2023), CNDDB records (CNDDB, 2023), and IPaC (USFWS, 2023). There are historic occurrences of alkali milk-vetch (*Astragalus tener* var. *tener,* CRPR 1B.2) from 1905, and of Hoover's button celery (*Eryngium aristulatum* var. *hooveri*, CRPR 1B.1) from 1909 at the Shoreline at Mountain View Regional Park, but both are listed in the CNDDB as "possibly extirpated." There are recent occurrences of Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*, CRPR 1B.1); this species is described below.

There is no suitable habitat in or near the project site for any of the other forty-five (45) special-status plant species that occur in the project region. The special-status plant species are not expected to occur at the project site for at least one of the following reasons: (1) lack of suitable habitat types; (2) absence of specific microhabitat or edaphic requirements (e.g., serpentine or alkaline soils); (3) the species is presumed extirpated or is not expected to occur in the project vicinity due to range; and/or (4) the site is too developed and regularly disturbed to be expected to support the species. Special-status species plants with past occurrences within five miles of the project site are included in a table in Appendix C along with their listing status, range, habitat requirements, life form and blooming period, and potential to occur in the study area; other special-status plants evaluated for potential occurrence in the project area are listed below the table.

Congdon's tarplant

Federal Listing Status: None; State Listing Status: California Rare Plant Rank (CRPR) 1B

Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*) is an annual herb in Sunflower Family (Asteraceae) that blooms from May to November. It occurs throughout western California from San Luis Obispo to Solano County. It grows in valley and foothill grasslands with alkaline or clay

soils from 0-230 meters. It is severely threatened by development, and possibly threatened by grazing and non-native plants.\

There are six sub-populations at the Shoreline including two subpopulations on former golf course ponds and one subpopulation on the edge of the golf course at three locations. It was once observed approximately 656 feet from Bridge #27 (Higgins, 2023b).

Special-status Animals

A total of fifty-eight (58) special-status animal species occur or historically occurred in the project region according to CNDDB records (CNDDB, 2023) and IPaC (USFWS, 2023), although fourteen (14) of those species do not meet the definition of special-status species used in this document. A list of forty-four (44) special-status animal species was compiled using the USFWS and CNDDB databases and evaluated for their potential to occur in or near the project site. Thirty-four (34) special-status animal species are unlikely to occur due to a lack of suitable habitat, urban development and human disturbance, and/or because the project site is outside of their usual range. All special-status animal species evaluated for their potential occurrence on the project site are included in Appendix C along with listing status, range, habitat requirements, and potential to occur at or near the project site.

Monarch butterfly (*Danaus plexippus*), northwestern pond turtle (*Actinemys marmorata*), and eight special-status bird species are known to occur in the project area and are described below. Many of the 20 bird species considered in the analysis have been observed at the Shoreline at Mountain View Regional Park according to CNDDB and/or recent eBird records (eBird is a citizen science online portal where birdwatchers can post their observations), and several additional special-status bird species with no CNDDB records from the area have also been observed at the Park according to eBird. However, most of these bird species either do not breed at the Park, and/or occur there only occasionally; and/or there is no suitable habitat for the species on or adjacent to the project site. Therefore, only eight bird species that breed in the project area and are known to or could occur at or near the project site based on known nesting locations and/or suitable habitat on the project alignment are described below.

<u>Monarch Butterfly</u>

Federal Listing Status: Federal Candidate (FC); State Listing Status: None

Monarch butterflies require milkweeds for egg-laying and larval development, but adults obtain nectar from a wide variety of flowering plants in many habitats. Individuals congregate in winter roosts, primarily in Mexico and in widely scattered locations on the central and southern California coast. The monarch butterfly is a common migrant, and less common breeder, in the South San Francisco Bay Area, where monarchs forage for nectar and breed on stands of milkweed. Native milkweed occurs in scattered locations in the South Bay, and some monarchs in the region breed on native milkweed. Those milkweed plants typically senesce (i.e., become dried and die) by fall, so under natural conditions, monarchs do not breed in the South Bay in winter (due to the absence of suitable hostplants) or form overwintering aggregations here. However, landscape plantings within the City of Mountain View also incorporate nonnative tropical milkweed (*Asclepias curassavica*). That plant species' life cycle, coupled with artificial irrigation of the plants, allows it to serve as a suitable larval hostplant even in winter.

Monarch butterfly breeds at the Shoreline at the maintenance building and in the monarch butterfly habitat area north of the kite flying lot, and near the Shoreline along Shorebird Way and Charleston Road, and along Charleston Way near Shorebird Way (H.T. Harvey & Associates, 2023). There is a monarch butterfly habitat restoration project approximately 1,300 feet from Bridge #27, where over one thousand native milkweeds were planted: monarchs observed daily in that area, and eggs and caterpillars observed June -September 2023 (Higgins, 2023b).

Northwestern Pond Turtle

Federal Listing Status: Proposed Threatened; State Listing Status: California Species of Special Concern (CSSC)

The northwestern pond turtle occurs in ponds, streams, and other wetland habitats in the Pacific slope drainages of California. Ponds or slack-water pools with suitable basking sites (such as logs) are an important habitat component for this species, and western pond turtles do not occur commonly along high-gradient streams. Females lay eggs in upland habitats, in clay or silty soils in unshaded areas. Juveniles occur in shallow aquatic habitats with emergent vegetation and ample invertebrate prey. Nesting habitat is typically found within 600 feet of aquatic habitat, but if no suitable nesting habitat can be found close by, adults may travel overland considerable distances to nest.

This species was observed in Pond #4 on April 21, 2021 (Appendix B). The pond contains suitable aquatic and basking habitat, though upland habitat for nesting is limited by the surrounding golf course. There are three CNDDB records of western pond turtle within 5 miles of the project site. The closest to the project site is in the channels along the Bay Trail near the Moffet Field Golf Course, from 2012.

Burrowing Owl

Federal Listing Status: None; State Listing Status: CSSC

Burrowing owl (*Athene cunicularia*) occurs throughout the lowlands of California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas. It is a ground dwelling owl, typically found nesting in arid prairies, fields, and open areas where vegetation is sparse and low to the ground. It is heavily dependent upon the presence of small mammal burrows (e.g., ground squirrel) in its habitat to provide shelter from predators or inclement weather, as well as to provide a nesting location. Foraging habitat is often present in grassland areas. In California, burrowing owls breed from February 1 to August 31, with some variances by geographic location and climatic conditions. The non-breeding season (i.e., wintering season) for burrowing owl occurs from September 1 to January 31. Burrowing owls prefer short grass grasslands with burrow networks, and frequently with boulder fields or rock outcrops. Burrows are frequently modified by these owls. Constructed burrows (artificial burrows) are readily occupied by burrowing owls, and have been constructed for habitat enhancement and mitigation in several sites in California.

Burrowing owls are known to occur at the Shoreline at Mountain View Regional Park based on CNDDB and City of Mountain View records. They occur year-round at the Park and nest at various locations on the golf course and in surrounding areas. The City has an active management program for burrowing owls including preserves, artificial burrows, and regular nest monitoring. Based on City of Mountain View records, there are past burrowing owl nest locations within about

150 feet of Bridge #27 and within about 300 feet of Bridge #25. There is an owl mitigation area about 0.1 mile southwest of the project site. There are no owl nesting sites in or adjacent to the project site itself (City of Mountain View, 2023).

Northern Harrier

Federal Listing Status: None; State Listing Status: CSSC

Breeding Northern Harriers (*Circus hudsonius*) are most common in large, undisturbed tracts of wetlands and grasslands with low, thick vegetation. They breed in freshwater and brackish marshes, lightly grazed meadows, old fields, tundra, dry upland prairies, drained marshlands, high-desert shrubsteppe, and riverside woodlands across Canada and the northern United States. During winter they use a range of habitats with low vegetation, including deserts, coastal sand dunes, pasturelands, croplands, dry plains, grasslands, old fields, estuaries, open floodplains, and marshes. Northern Harriers forage on the wing, coursing low over the ground. They eat small mammals, reptiles, amphibians, and birds.

Northern harriers successfully nested in the Mountain View Tidal Marsh in 2018, approximately 1,150 feet from Bridge #27 (Higgins, 2023b). It was observed at the Mountain View Shoreline most recently in November 2021 according to eBird. There is suitable breeding and foraging habitat for this species in coastal marsh north and east of the site; but there is no suitable habitat within or adjacent to the project site.

White-tailed Kite

Federal Listing Status: None; State Listing Status: California Fully Protected (CFP)

The white-tailed kite (*Elanus leucurus*) is found in lowland areas of California west of the Sierra Nevada from the head of the Sacramento Valley south, including coastal valleys and foothills to western San Diego County at the Mexico border. They are residents of the Central Coast of California. White-tailed kites are residents in a variety of open habitats, including agricultural areas, grasslands, scrub and open chaparral habitats, meadows, and emergent wetlands throughout the lower elevations of California. Nests are constructed mostly of twigs and placed in small to large trees, often at habitat edges or in isolated groves. This species preys upon a variety of small mammals and other vertebrates.

White-tailed kites are known to occur at the Shoreline at Mountain View Regional Park based on CNDDB and City of Mountain View records. This species nested at the Shoreline from 2018-2020, and just outside the Shoreline as recently as 2022 (Higgins, 2023b). The closest nest location to the project site was approximately 600 feet northwest of the back side of Michael's near the parking lot for the Rengstorff House in 2019 (City of Mountain View, 2020).

Saltmarsh Common Yellowthroat

Federal Listing Status: None; State Listing Status: CSSC

Saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*) found year-round in the vicinity of San Francisco Bay, from Tomales Bay in Marin County and Napa Sloughs in southern Sonoma County on the north, east to Carquinez Straight, and south to vicinity of San Jose in Santa Clara County. Saltmarsh common yellowthroat mostly breeds and winters in wet meadow, fresh

emergent wetland, and saline emergent wetland habitats in areas around the south end of San Francisco Bay. It requires thick, continuous cover down to water surface for foraging; and tall grasses, tule patches, and willows for nesting. It eats insects, especially caterpillars and other larvae; as well as spiders and seeds.

Saltmarsh common yellowthroat was observed during the July 2023 bird surveys conducted by the City (Appendix B). This species has been observed breeding at Pond 4 and adjacent areas, (the high-level ditch to the east of the pond and along Permanente Creek) for several years now (2017-2023). It is also known from Shoreline at Mountain View Regional Park from recent CNDDB records and eBird observations.

California Black Rail

Federal Listing Status: None; State Listing Status: Threatened, CFP

California black rails (*Laterallus jamaicensis coturniculus*) appear to be composed of three clearly distinct metapopulations. The first and most numerous inhabits tidal marshes in the northern San Francisco Bay area, with small occurrences at sites from Bodega Bay to northwest Baja California. The second, intermediate-sized metapopulation is found in the Central Valley. The third, much smaller metapopulation occurs in the lower Colorado River/Salton Sea. California black rails inhabit freshwater marshes, wet meadows, and shallow margins of saltwater marshes bordering larger bays. Most California populations, especially in the southern part of the state are nonmigratory and habitat serves for breeding, foraging, and overwintering. In tidal areas, rails require a dense cover of upland vegetation to provide protection from predators when rails must leave marsh habitats during high tide. Typical associated habitats in freshwater include bulrush (*Scirpus* spp.). California black rails feed on isopods, insects, and other arthropods.

California black rail nested in the Stevens Creek Tidal Marsh in 2022 and 2023 (Higgins, 2023b), approximately 0.6 miles East of Bridge #27. There is suitable breeding and foraging habitat for this species near the site, but it more likely occurs in the marsh habitat to the North and East of the site than at the project site. Therefore, it has only a moderate potential to occur in or near the project site.

Alameda Song Sparrow

Federal Listing Status: None; State Listing Status: CSSC

Alameda song sparrow (*Melospiza melodia pusillula*) is a subspecies of the song sparrow, endemic to the tidal salt marshes of Alameda and San Mateo Counties. This species inhabits pickleweed (*Salicornia* sp.) marshes, and nests low in gumplant (*Grindelia* sp.) bushes (high enough to escape high tides) and in pickleweed. It eats small insects and seeds.

There are seven CNDDB records of Alameda song sparrow within five miles of the project site, most recently near the Palo Alto Golf Course and Alviso in 2004. Song sparrows have been observed at Shoreline Park as recently as July 2023 according to eBird, but it is unknown if they are Alameda song sparrows. There is suitable habitat in the vegetation at the site and nearby along Permanente Creek. This species has a high potential to occur at or near the site.

California Ridgeway's Rail

Federal Listing Status: Endangered; State Listing Status: Endangered, CFP

Ridgeway's rail (*Rallus longirostris obsoletus*) is found almost exclusively in the marshes of the San Francisco estuary in San Mateo, Santa Clara, Alameda, Contra Costa, Solano, Napa, Sonoma, and Marin counties. It inhabits brackish marsh, marsh and swamp, salt marsh, and wetland habitats. It is most likely in salt water and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. This species is associated with abundant growths of pickleweed but feeds away from cover on invertebrates from mud-bottomed sloughs. Ridgeway's rail forages on mussels, arthropods, and snails which they probe from just below the surface.

California Ridgeway's rail occurs near the project site according to a 2001 CNDDB record at Permanente Creek and recent observations on eBird. This species has been observed in Permanente Creek, Mountain View Tidal Marsh, and Stevens Creek Tidal Marsh (Higgins, 2023b). It was last observed in Permanente Creek in 2022 in the lower portion of the creek (Higgins, 2023b). However, it likely occurs more often in the marsh habitat along the Bay shore. There is no breeding habitat or foraging habitat for this species in or adjacent to the project site.

Black Skimmer

Federal Listing Status: None; State Listing Status: CSSC

Black skimmer (*Rynchops niger*) breeds along the Central Coast in California, and occurs year round in coastal Southern California. Black skimmers spend their entire lives in coastal areas, usually around sandy beaches and islands, although a few colonies can be found in inland locations with very large lakes. Nesting birds use open sandy areas, gravel or shell bars with sparse vegetation, or broad mats of wrack (dead vegetation) in saltmarsh. Foraging birds frequent places that concentrate prey: tidal waters of bays, estuaries, lagoons, creeks, rivers, ditches, and saltmarsh pools. They eat many species of fish, mostly under five inches long, and a few crustaceans, such as shrimp or blue crab (when the crabs are molting).

Black skimmers are known to nest at the Shoreline Lake from a 2015 CNDDB record, and have been most recently observed in May 2023 according to eBird. Black skimmers have been nesting on the Shoreline Lake island from 2015-2023, and is one of the largest breeding colonies in the Bay Area with 119 adults and 121 eggs last year (Higgins, 2023b). This species may forage at the project site but is unlikely to nest there due to a lack of suitable nesting habitat within and adjacent to the artificial pond.

Critical Habitat

Critical habitat includes specific geographic areas that contain features essential to the conservation of a species listed as endangered or threatened under the Federal Endangered Species Act, and that may require special management and protection. Critical habitat may also include areas that are not currently occupied by the species but will be needed for its recovery. The USFWS and NMFS are responsible for designating critical habitat for the species under their respective jurisdictions.

There is no critical habitat in or adjacent to the project site, however critical habitat occurs nearby in Permanente Creek. All tidally influenced areas of San Francisco Bay, San Pablo Bay, and

Suisun Bay up to the elevation of mean higher high water are critical habitat for Northern green sturgeon (*Acipenser medirostris*) - Southern Distinct Population Segment (DPS), listed as threatened under FESA. This includes the tidally-influenced portion of Permanente Creek. Green sturgeon - Southern DPS is known to inhabit the San Francisco Bay, and may occasionally range into the tidally influenced areas of streams or rivers that discharge into the Bay, but it only spawns in the Sacramento River. This species is large and requires deep water usually not present in Permanente Creek. Thus, it is unlikely to occur near the project site.

No other critical habitat occurs in the project area.

Essential Fish Habitat

Essential Fish Habitat (EFH) is defined as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" (16 U.S.C. 1802[10]).

There is no EFH in or adjacent to the project site, however EFH occurs nearby in Permanente Creek. Permanente Creek is in EFH for Chinook salmon (*Oncorhynchus tshawytscha*), Coho salmon (*Oncorhynchus kisutch*), coastal pelagic species, and groundfish. However, Chinook salmon and coho salmon have not been observed in the creek, and anadromous and pelagic fish are prevented from migrating up the creek by the Permanente Creek Diversion which culminates in a 10-foot (3.0 m.) drop impassable to fish. For example, steelhead trout (*Oncorhynchus mykiss irideus*) - Central California Coast DPS historically occurred in Permanente Creek but is no longer present due to the migration barrier.

No other EFH occurs in the project area.

Sensitive Vegetation Communities

The CDFW determines the level of rarity and imperilment of vegetation types; and tracks sensitive communities in its Rarefind database (CNDDB, 2023). Global rankings (G) of natural communities reflect the overall condition (rarity and endangerment) of a habitat throughout its range, whereas state (S) rankings reflect the condition of a habitat within California. Natural communities are defined using NatureServe's standard heritage program. methodology as follows (CDFG, 2007):

- G1/S1: Less than 6 viable occurrences or less than 2,000 acres;
- G2/S2: Between 6 and 20 occurrences or 2,000 to 10,000 acres;
- G3/S3: Between 21 and 100 occurrences or 10,000 to 50,000 acres;
- G4/S4: The community is apparently secure, but factors and threats exist to cause some concern.

There are no sensitive vegetation communities in or adjacent to the project site, although sensitive pickleweed mats occur nearby along Permanente Creek.

Jurisdictional Waters

Artificial ponds do not meet the definition of waters of the U.S. and thus are not under the jurisdiction of U.S. Army Corps of Engineers (USACE or Corps) under Section 404 of the Clean Water Act (CWA), or the San Francisco Bay Regional Water Quality Control Board (RWQCB or Water Board) under Section 401 of the CWA. The National Wetlands Inventory (NWI) shows a

hydrologic connection between the artificial pond at the project site and Permanente Creek, which is a water of the U.S. However, this hydrologic connection was confirmed not be present on recent aerial imagery (Google Earth, 2023) and during the July 2023 site visit. The USACE still needs to confirm this based on aerial photos and site photos to be provided by the City or its consultant (Frentzen, 2023).

The project site is in an area of historic Baylands, which is potentially subject to Section 10 of the Rivers and Harbors Act (RHA). The USACE provided the following guidance regarding Section 10 of the RHA applicability in diked Baylands: "*In order to be regulated as historic Section 10 RHA, the project site is currently below the mean high water (MHW)2, the project site would have been historically below MHW in its unobstructed, natural state, and that the area has not at one time been above MHW. In order to determine that the Corps does not have Section 10 authority over this project, the project proponent will need to provide documentation that the area was at one time completely filled, and that the ponds were created in uplands sometime after the diked bayland was filled*" (Frentzen, 2023). Historical aerial imagery of the project site from 1970 and 1972 showed that the project area was already filled in 1970, but the pond was not present, while it was present in 1972 (Esri, 2023). The Corps agreed that the project is not subject to Section 10 of the RHA based on these historical aerial photographs (Frentzen, 2023).

The artificial pond does meet the definition of a Water of the State, and thus is subject to Waste Discharge Requirements (WDRs) under the Porter-Cologne Water Quality Control Act (Porter-Cologne Act). The project is likely eligible for coverage under RWQCB Order 2004-0004, which provides General WDRs for projects outside of federal jurisdiction that impact less than 0.2 acres of area subject to Water Board jurisdiction.

The California Department of Fish and Wildlife (CDFW) requires a Lake or Streambed Alteration Agreement for impacts to lakes or streams in California under Section 1600 of the California Fish and Game Code. CDFW requested that the City submit a Notification of Lake or Streambed Alteration to CDFW for the project at the August 10, 2023 Interagency meeting; CDFW would determine whether a Lake Alteration Agreement is needed for the project based on information provided in the Notification (Garrison, 2023).

Wildlife Movement

The project site is near the San Francisco Bay and salt marsh and estuarine habitat along the Bay shore, providing regional habitat and movement opportunity for shorebirds and water birds. Small mammals, amphibians and reptiles may be restricted to the Shoreline at Mountain View Regional Park by surrounding development and waterways that prevent them from accessing nearby habitat areas. Wildlife movement is generally limited to the west of the Park due to dense urban development. Permanente Creek connects to the San Francisco Bay and may provide a movement corridor for aquatic species, but movement in the creek is limited by the Permanente Creek Diversion which culminates in a 10-foot (3.0 m.) drop impassable for fish and many other aquatic species.

2 The average of all the high water heights observed over the National Tidal Datum Epoch.

3.4.2 Regulatory Setting

Federal Regulations

Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973, as amended, provides the regulatory framework for the protection of plant and animal species (and their associated critical habitats), which are formally listed, proposed for listing, or candidates for listing as endangered or threatened under FESA. FESA has the following four major components: (1) provisions for listing species, (2) requirements for consultation with the United States (U.S.) Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) (3) prohibitions against "taking" (i.e., harassing, harming, hunting, shooting, wounding, killing, trapping, capturing, or collecting, or attempting to engage in any such conduct) of listed species, and (4) provisions for permits that allow incidental "take". Recovery plans and the designation of critical habitat for listed species are defined in FESA.

Under Section 7 of FESA, any federal agency that is authorizing, funding, or carrying out an action that may jeopardize the continued existence of federally listed threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species must consult with the federal agency that oversees the protection of that species, typically the USFWS and/or NMFS, depending on the species that may be affected. Non-federal agencies and private entities can seek authorization for take of federally listed species under Section 10 of FESA, which requires the preparation of a Habitat Conservation Plan (HCP).

U.S. Migratory Bird Treaty Act

The U.S. Migratory Bird Treaty Act (MBTA; 16 USC §§ 703 et seq., Title 50 Code of Federal Regulations [CFR] Part 10) states it is "unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill; attempt to take, capture or kill; possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export any migratory bird, any part, nest, or egg of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or in part, of any such bird or any part, nest or egg thereof…" In short, under MBTA it is illegal to disturb a nest that is in active use, since this could result in killing a bird, destroying a nest, or destroying an egg. The USFWS enforces MBTA. The MBTA does not protect some birds that are non-native or human-introduced or that belong to families that are not covered by any of the conventions implemented by MBTA.

Clean Water Act

The Clean Water Act (CWA) is the primary federal law regulating water quality. The implementation of the CWA is the responsibility of the U.S. Environmental Protection Agency (EPA). However, the EPA depends on other agencies, such as the individual states and the U.S. Army Corps of Engineers (USACE), to assist in implementing the CWA. The objective of the CWA is to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Section 404 and 401 of the CWA apply to activities that would impact waters of the U.S. The USACE enforces Section 404 of the CWA and the California State Water Resources Control Board enforces Section 401, as well as state water laws.

Section 404. As part of its mandate under Section 404 of the CWA, the EPA regulates the discharge of dredged or fill material into "waters of the U.S.". "Waters of the U.S." include territorial seas, tidal waters, and non-tidal waters in addition to wetlands and drainages that support wetland vegetation, exhibit ponding or scouring, show obvious signs of channeling, or have discernible banks and high-water marks. Wetlands are defined as those areas "that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3(b)). Wetlands that were converted to cropland before 1985, ditches carved wholly in dry land that don't carry relatively permanent flow, and artificial lakes and ponds are excluded as waters of the U.S. The discharge of dredged or fill material into waters of the U.S. is prohibited under the CWA except when it is in compliance with Section 404 of the CWA. Enforcement authority for Section 404 was given to the USACE, which it accomplishes under its regulatory branch. The EPA has veto authority over the USACE's administration of the Section 404 program. and may override a USACE decision with respect to permitting.

Section 401. Any applicant for a federal permit to impact waters of the U.S. under Section 404 of the CWA, including Nationwide Permits where pre-construction notification is required, must also provide to the USACE a certification or waiver from the State of California. The "401 Certification" is provided by the State Water Resources Control Board through the local Regional Water Quality Control Board (RWQCB).

Rivers and Harbors Act

Section 10 of the Rivers and Harbors Act (RHA) of 1899 prohibits the creation of any obstruction to the navigable capacity of waters of the U.S., including discharge of fill and the building of any wharfs, piers, jetties, and other structures without Congressional approval or authorization by the Chief of Engineers and Secretary of the Army (33 U.S. Code 403). Navigable waters of the U.S., which are defined in 33 CFR, Part 329.4, include all waters subject to the ebb and flow of the tide, and/or those which are presently or have historically been used to transport commerce. The shoreward jurisdictional limit of tidal waters is further defined in 33 CFR, Part 329.12 as "the line on the shore reached by the plane of the mean (average) high water (MHW)." Where precise definition of the actual location of the MHW line becomes necessary, it must be established by survey with reference to the available tidal datum. Historic/ diked Baylands are subject to Section 10 of the RHA in some cases. If a project proposes to discharge dredged or fill material and/or introduce other potential obstructions in navigable waters of the U.S., a Letter of Permission authorizing these impacts must be obtained from the USACE or the U.S. Coast Guard under Section 10 of the RHA.

State Regulations

California Environmental Quality Act

The California Environmental Quality Act (CEQA, Public Resources Code Sections 21000 et. seq.) requires public agencies to review activities which may affect the quality of the environment so that consideration is given to preventing damage to the environment. When a lead agency approves a development project that could affect the environment, it must disclose the potential environmental effects of the project. This is done with an "Initial Study and Negative Declaration"

(or Mitigated Negative Declaration) or with an "Environmental Impact Report." Certain classes of projects are exempt from detailed analysis under CEQA if they meet specific criteria and are eligible for a Categorical Exemption.

CEQA Guidelines Section 15380 defines endangered, threatened, and rare species for purposes of CEQA and clarifies that CEQA review extends to other species that are not formally listed under the state or federal Endangered Species acts but that meet specified criteria. The state maintains a list of sensitive, or "special-status," biological resources, including those listed by the state or federal government or the California Native Plant Society (CNPS) as endangered, threatened, rare or of special concern due to declining populations. During CEQA analysis for a proposed project, the California Natural Diversity Data Base (CNDDB) is usually consulted. CNDDB relies on information provided by the California Department of Fish and Wildlife (CDFW), USFWS, and CNPS, among others. Under CEQA, the lists kept by these and any other widely recognized organizations are considered when determining the impact of a project.

California Endangered Species Act

The California Endangered Species Act (CESA; Fish and Game Code 2050 et seq.) generally parallels FESA. It establishes the policy of the State to conserve, protect, restore, and enhance threatened or endangered species and their habitats. Section 2080 of the California Fish and Game Code prohibits the take, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or by the regulations. "Take" is defined in Section 86 of the California Fish and Game Code as to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." This definition differs from the definition of "take" under FESA. CESA is administered by CDFW. CESA allows for take incidental to otherwise lawful projects but mandates that State lead agencies consult with the CDFW to ensure that a project would not jeopardize the continued existence of threatened or endangered species.

Fully Protected Species and Species of Special Concern

The classification of California fully protected (CFP) species was the CDFW's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under CESA and/or FESA. The Fish and Game Code sections (§5515 for fish, §5050 for amphibian and reptiles, §3511 for birds, §4700 for mammals) deal with CFP species and state that these species "…may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected species" (CDFW Fish and Game Commission 1998). "Take" of these species may be authorized for necessary scientific research. This language makes the CFP designation the strongest and most restrictive regarding the "take" of these species. In 2003, the code sections dealing with CFP species were amended to allow the CDFW to authorize take resulting from recovery activities for state-listed species. In 2023, the code was amended to allow take permits for infrastructure and renewable energy projects, and remove American peregrine falcon (*Falco peregrinus anatum*) and brown pelican (*Pelecanus occidentalis*) from the list of CFP (California Senate Bill 147).

California species of special concern (CSSC) are broadly defined as animals not listed under the FESA or CESA, but which are nonetheless of concern to the CDFW because they are declining at a rate that could result in listing, or historically occurred in low numbers and known threats to

their persistence currently exist. This designation is intended to result in special consideration for these animals by the CDFW, land managers, consulting biologists, and others, and is intended to focus attention on the species to help avert the need for costly listing under FESA and CESA and cumbersome recovery efforts that might ultimately be required. This designation also is intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species, and focus research and management attention on them. Although these species generally have no special legal status, they are given special consideration under CEQA during project review.

California Fish and Game Code

Sections 3503.5 and 3513 Nesting Birds. Nesting birds, including raptors, are protected under California Fish and Game Code Section 3503, which reads, "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." In addition, under California Fish and Game Code Section 3503.5, "it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Passerines and non-passerine land birds are further protected under California Fish and Game Code 3513. As such, CDFW typically recommends surveys for nesting birds that could potentially be directly (e.g., actual removal of trees/vegetation) or indirectly (e.g., noise disturbance) impacted by project-related activities. Disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "take" by CDFW.

Sections 4150-4155 Non-Game Mammals. Sections 4150-4155 of the California Fish and Game Code protect non-game mammals, including bats. Section 4150 states "A mammal occurring naturally in California that is not a game mammal, fully protected mammal, or fur-bearing mammal is a nongame mammal. A non-game mammal may not be taken or possessed except as provided in this code or in accordance with regulations adopted by the commission." The non-game mammals that may be taken or possessed are primarily those that cause crop or property damage. Bats are classified as non-game mammals and are protected under the California Fish and Game Code, in addition to being protected if they are a listed species (e.g., CSSC, CFP, state or federal threatened, or state or federal endangered).

Porter-Cologne Water Quality Act

The intent of the Porter-Cologne Water Quality Control Act (Porter-Cologne) is to protect water quality and the beneficial uses of water, and it applies to both surface and ground water. Under this law, the State Water Resources Control Board develops statewide water quality plans, and the Regional Water Quality Control Boards (RWQCBs) develop basin plans, which identify beneficial uses, water quality objectives, and implementation plans. The RWQCBs have the primary responsibility to implement the provisions of both statewide and basin plans. Waters regulated under Porter-Cologne, referred to as "waters of the State," include isolated waters that are not regulated by the USACE. Projects that require a USACE permit, or fall under other federal jurisdiction, and have the potential to impact waters of the State are required to comply with the terms of the Water Quality Certification Program. If a proposed project does not require a federal license or permit, any person discharging, or proposing to discharge, waste (e.g., dirt) to waters of the State must file a Report of Waste Discharge and receive either waste discharge requirements (WDRs) or a waiver to WDRs before beginning the discharge.

CDFW Jurisdiction and California Fish and Game Code Sections 1600-1607

Sections 1600-1607 of the California Fish and Game Code require that a Notification of Lake or Streambed Alteration Agreement (LSAA) application be submitted to CDFW for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." CDFW reviews the proposed actions in the application and, if necessary, prepares a LSAA that includes measures to protect affected fish and wildlife resources, including mitigation for impacts to bats and bat habitat.

Local Regulations

City of Mountain View General Plan

The following goals and policies from the Infrastructure and Conservation Element of the City of Mountain View's 2030 General Plan (City of Mountain View, 2012) apply to protection of biological resources at the project site:

Goal INC-16: Rich and biologically diverse ecological resources which are protected and enhanced.

Policy INC 16.2: Shoreline at Mountain View. Manage Shoreline at Mountain View Regional Park to balance the needs of recreational, open space, habitat, commercial and other uses.

Policy INC 16.3: Habitat. Protect and enhance nesting, foraging and other habitat for special-status species and other wildlife.

Policy INC 16.5: Wetland habitat. Collaborate with and support regional efforts to restore and protect wetlands, creeks, tidal marshes and open-water habitats adjacent to San Francisco Bay.

Goal INC-17: A healthy and well-managed watershed that contributes to improved water quality and natural resource protection.

Mountain View Municipal Code

Chapter 32- Trees, Shrubs and Plants. Chapter 32 of the Mountain View Municipal Code states that: "No person shall cut, trim, prune, plant, spray, remove, injure or interfere with any street tree or shrub without the prior written permission of the director of parks and recreation" (Section 32.6). A "street tree" includes any tree or shrub, by whomever owned or planted it, in a street or public place (Section 32.2). Damage to street trees from hazardous materials in the root zone of street trees is also prohibited (Section 32.9).

The ordinance also contains provisions for the preservation of heritage trees, which include any of the following:

1. A tree which has a trunk with a circumference of forty-eight (48) inches or more measured at fifty-four (54) inches above natural grade;

2. A multi-branched tree which has major branches below fifty-four (54) inches above the natural grade with a circumference of forty-eight (48) inches measured just below the first major trunk fork;

3. Any quercus (oak), sequoia (redwood), or cedrus (cedar) tree with a circumference of twelve (12) inches or more when measured at fifty-four (54) inches above natural grade;

4. A tree or grove of trees designated by resolution of the city council to be of special historical value or of significant community benefit (Section 32.23).

3.4.3 Discussion

Would the project:

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

Less than Significant with Mitigation Incorporated. The project's potential impacts on special-status species, nesting birds, and roosting bats are discussed below.

Congdon's tarplant – Less Than Significant Impact. No tarplant species were observed within or near the project site during July and August 2023 site visits performed by MIG biologist Megan Kalyankar. The project site also lacks suitable habitat for Congdon's tarplant because it is occupied by open water (Pond #4) and associated cattails and tules, and the mowed golf course. The proposed project would involve only a small amount of vegetation removal on the causeway (existing Bridge #25) and immediately adjacent to the pond and would not impact known nearby occurrences of Congdon's tarplant (the closest is 656 feet from Bridge #27). Therefore, no potentially significant project-related impacts to Congdon's tarplant are expected.

Monarch Butterfly – Less Than Significant Impact. No milkweed was observed within or near the project site during July and August 2023 site visits performed by MIG biologist Megan Kalyankar. The project site also has limited nectar plants because it is primarily occupied by open water (Pond #4) and the mowed golf course. The proposed project would involve only a small amount of vegetation removal on the causeway (existing Bridge #25) and immediately adjacent to the pond and would not impact the nearby monarch restoration area (1,300 feet from Bridge #27). Therefore, no potentially significant project-related impacts to monarch butterfly are expected.

Western Pond Turtle - Less Than Significant with Mitigation Incorporated. As described in the Environmental Setting above, a western pond turtle was observed in Pond #4 in 2021, and Pond #4 includes suitable aquatic and basking habitat for western pond turtle. The proposed project is expected to benefit western pond turtle in the long term by creating an island feature from the existing causeway that could be used for basking. However, in the short term project construction could accidentally injure or kill a western pond turtle or disturb them. Project construction could also impact habitat quality by causing erosion and sedimentation or accidentally releasing construction fuels and fluids into Pond #4. Direct impacts would be avoided by Mitigation Measures BIO-1a through 1c, listed below. Impacts to habitat quality would be

avoided by standard and project-specific BMPs to protect water quality and prevent erosion and sedimentation (see Section 3.10 Hydrology and Water Quality for more information).

Impact BIO-1: Project construction could accidentally injure or kill a western pond turtle or disturb them.

Mitigation Measure BIO-1a: Preconstruction Survey. No more than two weeks prior to the commencement of ground-disturbing activities, a qualified biologist shall perform a visual survey for western pond turtles within aquatic and upland habitat in the project area. An additional survey shall occur no more than 24 hours prior to the start of construction. The surveys shall be performed when the weather is sunny and warm to increase the likelihood that turtles will be detected, if present. The results of the surveys shall be documented and provided to the City.

Mitigation Measure BIO-1b: Worker Environmental Training. All construction personnel shall participate in a worker environmental awareness program. These personnel shall be informed about the possible presence of all special-status species and habitats associated with the species identified to be potentially present in the project vicinity and that unlawful take of the animal or destruction of its habitat is a violation of federal and State laws. Prior to construction activities, the qualified biologist shall instruct all construction personnel about (1) the description and status of the species; (2) the importance of their associated habitats; and (3) a list of measures being taken to reduce impacts on these species during project construction and implementation. A fact sheet conveying this information shall be prepared for distribution to the construction crew and anyone else who enters the project site. All project personnel shall sign an affidavit certifying that they have attended the training and agree to follow the applicable avoidance measures.

Mitigation Measure BIO-1c: Avoidance Measures for Western Pond Turtle. To minimize potential impacts on western pond turtle, project construction shall adhere to the following measures:

- Prior to the start of excavation within the pond, weighted silt curtains or similar barriers shall be installed in the pond around the work area to exclude pond turtles and other wildlife from the excavation area and to minimize sedimentation in the pond. The silt curtains or similar barriers shall be checked and maintained daily until the excavation is completed.

- No equipment shall enter the pond. Excavation shall be done with an excavator staged outside the pond and reaching in.

- Project activities shall be limited to the smallest area necessary for equipment staging, site access, construction equipment and personnel parking, debris storage, etc.

- Construction shall be limited to daylight hours to prevent nighttime construction noise impacts to wildlife and no construction site flood lighting shall be utilized.

- To eliminate an attraction for the predators of special-status species, all food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in solid, closed containers (trash cans) and removed from the construction site daily.

- Plastic mono-filament netting (erosion control matting, wattles), rolled erosion control products or similar material shall not be used at the project site to prevent accidentally trapping wildlife species.

- If western pond turtle or other special-status species is found during construction, all work shall cease in the area where the individual was found until the animal leaves the impact area on its own. If this is not possible, a qualified biologist shall contact CDFW to determine whether the animal can be moved to an appropriate relocation site. If moving the animal is approved, the qualified biologist shall be given sufficient time to complete the task. Only qualified biologists shall capture, handle, and move listed species. The qualified biologist shall monitor any relocated individual until it is determined that it is safe.

- If a western pond turtle is observed during preconstruction surveys or project construction, a qualified biologist shall monitor all in-water work to ensure that no turtles are harmed during project construction.

Effectiveness: These measures would minimize and/or avoid impacts to western pond turtle to less than significant levels

Implementation: City of Mountain View and its contractor

Timing: Pre-construction phase (BIO-1a and BIO-1b) and construction phase (BIO-1c).

Monitoring: The results of the preconstruction survey, any nest buffers, and animal relocations shall be documented by the City or its contractor (BIO-1a and BIO-1c). The signed affidavit will provide a record of the worker environmental training (BIO-1b).

Burrowing Owl - Less Than Significant with Mitigation Incorporated. As described in the Environmental Setting above, burrowing owls (a CSSC) are year-round residents at Shoreline Park and are known to nest in the project area. Based on City of Mountain View records, there are past burrowing owl nest locations within about 150 feet of Bridge #27 and within about 300 feet of Bridge #25, and a burrowing owl mitigation area about 0.1 mile southwest of the site. As a result, project construction has the potential to disturb nesting or wintering burrowing owls in the vicinity of the project due to construction noise and activity. Such disturbance could cause stress-related behavior changes or even nest or burrow abandonment. Mitigation Measure BIO-1b above and BIO-2 below, would prevent potential impacts to nesting or wintering burrowing owls.

Impact BIO-2: The proposed project could impact nesting or wintering burrowing owl, a CSSC. There are known past nesting locations within 150 to 300 feet of the project site.

Mitigation Measure BIO-2: Project construction (including staging) shall occur during the non-breeding season (i.e., wintering season) for burrowing owl from September 1 to January 31 if feasible. Within 14 days of project initiation, the Contractor shall obtain current information on burrowing owl nesting or wintering locations from the City of Mountain View, and construction shall avoid all nest and winter burrow locations with a minimum 250-foot

buffer. A current map of burrowing owl nest or wintering locations shall be kept on site at all times, and buffer zones shall be flagged for avoidance prior to the start of construction.

If ground squirrel burrows are located within the project footprint, one-way doors shall be installed by the City's Wildlife Preservation Biologist to passively evict any ground squirrels from the immediate area and in the unlikely event burrowing owls are present within those burrows. The one-way doors shall remain in place for at least 48 hours and until construction commences at which time they can be removed by the City's Wildlife Preservation Biologist.

Effectiveness: This measure would minimize and/or avoid impacts to burrowing owls to less than significant levels

Implementation: City of Mountain View and its contractor

Timing: Pre-construction phase (no more than 14 days prior to site disturbance) and construction phase (if nest or winter burrow buffer is required).

Monitoring: The City of Mountain View monitors and documents burrowing owl nest and wintering locations at the Mountain View Shoreline.

California Ridgeway's Rail - Less Than Significant Impact. As described in the Environmental Setting above, California Ridgeway's rail (Federal and State Endangered and a CFP) has been occasionally observed in the project area according to CNDDB records and eBird observations. Although this species may occasionally occur in the part of Permanente Creek near the project site, they likely usually stay in the larger coastal marsh area near the Bay shore. The coastal marsh vegetation along Permanente Creek near the project site is insufficient to support nesting for this species, and foraging habitat is limited due to insufficient vegetation cover.

In addition, the project would have little to no impact to Permanente Creek since the creek is not within the project footprint. In addition, standard and project-specific BMPs to protect water quality and prevent erosion would be implemented to prevent construction related runoff from entering the creek (see Section 3.10 Hydrology and Water Quality for more information). Therefore, potential project impacts to California Ridgeway's rail and their habitat are expected to be less than significant.

Other Special-Status and Nesting Birds - Less Than Significant with Mitigation Incorporated. As described in the Environmental Setting above, white-tailed kite (a CFP), saltmarsh common yellowthroat (a CSSC), and black skimmer (a CSSC) are known to nest in the project area, and Alameda song sparrow (a CSSC) may occur and nest in or near the project site. In addition, the project area contains habitat for a variety of common nesting and migratory bird species. All native birds and their nests are protected by the federal MBTA and California Fish and Game Code.

Project construction could disturb special-status and common nesting birds in the vicinity of the project alignment due to construction noise and activity. Such disturbance could cause stress-related behavior changes or even nest abandonment. Mitigation Measure BIO-3, listed below, would prevent potential impacts to nesting birds.

Impact BIO-3: The proposed project could impact nesting birds protected under the federal MBTA and California Fish and Game Code. Birds could nest in the trees, shrubs or structures in or near the project site.

Mitigation Measure BIO-3: Pre-Construction Survey for Nesting Birds. Project construction (including staging) shall occur outside of the bird nesting season if possible (defined as the time between September 1st and January 31st). If construction starts during the bird nesting season between February 1st and August 31st, the Contractor shall contact the City of Mountain View within 14 days of project initiation about any known white-tailed kite nest locations, saltmarsh common yellowthroat nest locations, or other known nesting bird locations. In addition, a qualified biologist shall perform a pre-construction survey to identify active bird nests on or near the site, including staging areas. The pre-construction survey shall take place no more than seven days prior to the start of construction, and if more than seven days pass with no construction activities, another pre-construction survey shall be required. The survey shall include all trees, shrubs, and structures on the site, and all trees, shrubs, and structures within a 250-foot radius of the site. In addition, a 0.5-mile radius shall be searched for nesting white-tailed kite. If an active, native bird nest has been documented by the City or is found during the survey, the biologist shall designate a construction-free buffer zone (0.5 mile for white-tailed kites, typically 500 feet for other raptors, and 250 feet for other birds) around the nest to remain in place until the young have fledged. The qualified biologist shall be contacted immediately if a bird nest is discovered during project construction. The results of the survey and nest monitoring (if applicable) will be documented, and any nest buffer zones shall be flagged for avoidance prior to the start of construction.

Effectiveness: This measure would minimize and/or avoid impacts to nesting birds to less than significant levels.

Implementation: The City of Mountain View or its contractor.

Timing: Pre-construction phase (within 14 and seven days prior to site disturbance) and construction phase (if nest monitoring is required).

Monitoring: The City of Mountain View monitors and documents white-tailed kite nest locations at the Mountain View Shoreline. The qualified biologist's written report will include all survey and monitoring results, and implementation of any avoidance and minimization measures.

Impacts to Roosting Bats – Less than Significant with Mitigation Incorporated. Although unlikely, bats could roost under Bridge #27 or in the culverts in Bridge #25 if the water level is low enough. The project must comply with the provisions of the California Fish and Game Code to protect non-game mammals, including bats. Mitigation Measure BIO-4, listed below, would prevent significant impacts to roosting bats.

Impact BIO-4: The proposed project could impact roosting bats if they are present under Bridge #25 or Bridge #27.

Mitigation Measure BIO-4: Not less than 30 days before the start of construction-related activities (including but not limited to mobilization and staging, clearing, grubbing, tree removal, vegetation removal, fence installation, demolition, and grading), a roosting bat

survey will be conducted within the project site and a 50-foot buffer, including the culverts under Bridge #25 and under Bridge #27, as feasible. The survey may be conducted at any time of year but should be conducted in such a way to allow sufficient time to determine if special-status bats or maternity colonies are present. If no signs of bats are detected during the survey, no further surveys are warranted.

If signs of bat occupancy (e.g., guano pellets or urine staining) are detected or if the biologist cannot adequately survey under the bridges, a follow-up dusk emergence survey should be conducted by a qualified biologist. A dusk survey will verify if bats are present and/or will determine the number of bats present, and will also include the use of acoustic equipment to determine species of bats present.

If an occupied maternity or colony roost is detected, CDFW shall be consulted to determine appropriate measures, such as the establishment of a no-disturbance buffer. The results of the surveys shall be documented.

Effectiveness: This measure would minimize and/or avoid impacts to roosting bats to less than significant levels

Implementation: The City of Mountain View or its contractor.

Timing: Pre-construction phase (not less than 30 days prior to site disturbance).

Monitoring: The qualified biologist's written report will include all survey results, and implementation of any avoidance and minimization measures.

Critical Habitat and Essential Fish Habitat (EFH) - Less Than Significant Impact. As described in the Environmental Setting above, Permanente Creek near the project site is critical habitat for green sturgeon - Southern DPS (listed as threatened under FESA), and EFH for Chinook salmon, Coho salmon, pelagic species, and groundfish. However, none of these species are known to occur in Permanente Creek and none is expected to occur regularly if at all due to a lack of suitable habitat and a major migration barrier. In addition, the proposed project is not expected to impact Permanente Creek since the creek is not within the project footprint. In addition, standard and project-specific BMPs to protect water quality and prevent erosion would be implemented to prevent construction related runoff from entering the creek (see Section 3.10 Hydrology and Water Quality for more information). Therefore, potential impacts to critical habitat and EFH are expected to be less than significant.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

Less Than Significant Impact. Riparian habitat including cattails, bulrush, willows and other wetland plants as well as nonnative and upland plants is present along the edge the artificial pond at the project site. Vegetation removal associated with the project would be limited to small areas near the bridge abutments and along the causeway (existing Bridge #25). Vegetation removal associated with the abutments would be temporary as the vegetation is expected to grow back after construction, though permanent impacts would occur on the portions of the causeway to be excavated to create the island feature in the pond. Large scale or substantial impacts to the riparian habitat associated with the artificial pond are not expected.

Riparian habitat is also present near the project site along Permanente Creek, including pickleweed mats, a sensitive natural community according to CDFW. Permanente creek is not within the project footprint, and standard and project-specific BMPs to protect water quality and prevent erosion would be implemented to prevent construction related runoff from entering the creek (see Section 3.10 Hydrology and Water Quality for more information). Therefore, potential impacts to riparian habitat and other sensitive natural communities are expected to be less than significant.

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?

Less Than Significant Impact. Although a hydrologic connection is shown between the artificial pond at the project site and Permanente Creek in the NWI, MIG Senior Biologist Megan Kalyankar confirmed that no hydrologic connection exists during a field verification on August 22, 2023. A report with georeferenced photos of the NWI connection and a summary of the vegetation, soils, and hydrology of the area was submitted to the USACE. The USACE confirmed in an email dated September 25, 2023 that there is likely no wetland connection between the artificial pond and Permanente Creek, and it is therefore likely that no Clean Water Act Section 404 permit is required from the USACE (Frentzen, 2023). In this case, a Clean Water Act Section 401 Water Quality Certification (issued by the RWQCB) is also not required. The USACE had previously confirmed that the project is not subject to Section 10 of the Rivers and Harbors Act (Frentzen, 2023). The pond is a water of the State under the jurisdiction of the San Francisco Bay RWQCB, and is therefore subject to WDR requirements under the Porter-Cologne Act. The proposed project would likely qualify for coverage under RWQCB Order 2004-0004, which provides General WDRs for projects outside of federal jurisdiction that impact less than 0.2 acres of area subject to Water Board jurisdiction. The pond may also be subject to Section 1600 of the California Fish and Game Code, and thus a Notification of Lake or Streambed Alteration must be submitted to CDFW (Garrison, 2023). Mitigation Measure BIO-5, listed below, would ensure that the project complies with all applicable permitting requirements and thus would not have a substantial adverse effect on state or federally protected wetlands or other jurisdictional waters.

> **Impact BIO-5:** The proposed project would include excavation in an artificial golf course pond under the jurisdiction of the San Francisco Bay RWQCB and CDFW.
>
> **Mitigation Measure BIO-5:** The project shall apply for coverage under RWQCB Order 2004-0004, which provides General WDRs for projects outside of federal jurisdiction that impact less than 0.2 acres of area subject to Water Board jurisdiction. The City shall also submit a Notification of Lake or Streambed Alteration for the project to CDFW. The project shall not be initiated until all permits required by the RWQCB, and/or CDFW are obtained, or the agency(ies) have confirmed that no permits are required.
>
> **Effectiveness:** This measure would minimize and/or avoid impacts to jurisdictional waters.
>
> **Implementation:** The City of Mountain View or its contractor.
>
> **Timing:** Pre-construction phase (all required permits shall be obtained prior to project initiation).

Monitoring: Required permits may include avoidance and monitoring measures to be implemented prior to, during, and following project construction.

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?

No Impact. The project would not interfere with wildlife movement or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites. As described in the Existing Setting, there are existing barriers to wildlife movement in the project area due to urban development and the Permanente Creek Diversion. In addition, the proposed project is the replacement of two existing bridges over an artificial pond. The project would not create any barriers to wildlife movement, either in the pond or in upland areas.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (including the County Heritage and Significant Tree Ordinances)?

Less than Significant Impact. The proposed project would not conflict with the Mountain View Tree Ordinance (Mountain View Municipal Code Chapter 32: Trees, Shrubs and Plants) because the project would not remove, trim, or damage any tree. The proposed project is the replacement of two existing bridges over an artificial pond, and the creation of an island feature in the pond from the existing causeway. Vegetation removal would be limited to small areas near the bridge abutments and along the causeway.

The project would not conflict with City regulations or policies protecting sensitive biological resources with mitigation incorporated in this document to protect burrowing owl, other special-status and nesting birds, and roosting bats. The project would comply with all applicable regulations and permitting requirements, and standard and project-specific BMPs would be implemented during construction to protect water quality in the artificial pond and nearby Permanente Creek (see Section 3.10 Hydrology and Water Quality for more information). All other potential impacts to biological resources are expected to be less than significant (see responses to Questions a through d above).

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?

No Impact. There is no adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan that applies to the project site. Thus, the proposed project would not conflict with such a plan.

3.5 CULTURAL RESOURCES

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

The following discussion is based on an archaeological review memo report prepared by Basin Research Associates (Basin), dated September 1, 2023 [Appendix D, Confidential – held on file at the City].

The memo incorporates the findings of a prehistoric and historic site record and literature search completed for the project site by the California Historical resources Information System, Northwest Information Center, Sonoma State University, Rohnert Park (CHRIS/NWIC File No. 23-0019 dated 7/27/23). In addition, reference material from the Bancroft Library, University of California, Berkeley and Basin Research Associates, San Leandro was also consulted. Specialized listings for cultural resources consulted include:

- California History Plan (CAL/OHP 1973)
- California Inventory of Historic Resources (CAL/OHP 1976)
- Five Views: An Ethnic Sites Survey for California (CAL/OHP 1988)
- National Register for Historic Places (NRHP) listings in Santa Clara County (USNPS 2023 a-c)
- Office of Historic Preservation (OHP) Built Environment Resources Directory (BERD) for Santa Clara County (CAL/OHP 2023a)
- Listed California Historical Resources for Santa Clara County (CAL/OHP 2023b)
- Archaeological Determinations of Eligibility for Santa Clara County [ADOE] (CAL/OHP 2023c)

The Native American Heritage Commission (NAHC) was contacted regarding resources on the Sacred Lands File (SLF). Results were negative and contact was initiated with the Native American individuals/groups recommended by the NAHC. No other agencies, departments or

local historical societies were contacted regarding landmarks, potential historic sites or structures due to the nature of the proposed project improvements. A field review was not undertaken due to the location of the project within a former landfill within an active golf course.

The NAHC was contacted for a search of the SLF for the project site. The review was negative. Thirteen (13) locally knowledgeable Native American individuals/organizations for eight tribes/groups listed by the NAHC were contacted to determine if other tribal cultural resources of importance were present.

- Valentin Lopez, Chairperson, Amah Mutsun Tribal Band, Galt;
- Ed Ketchum, Vic-Chairperson, Amah Mutsun Tribal Band, Galt;
- Irenne Zwierlein, Chairperson, Amah Mutsun Tribal Band of Mission San Juan Bautista,
- Lakeport;
- Ann Marie Sayers, Chairperson, Indian Canyon Mutsun Band of Costanoan; Hollister;
- Kanyon Sayers-Roods, Indian Canyon Mutsun Band of Costanoan, San Jose;
- Monica Arellano, Vice Chairwoman, Muwekma Ohlone Indian Tribe of the SF Bay
- Area, Castro Valley;
- Lillian Camarena, Secretary, Tamien Nation, Madera;
- Quirina Luna Geary, Chairperson, Tamien Nation, San Jose;
- Johnathan Wasaka Costillas, THPO, Tamien Nation, Clearlake Oaks;
- Andrew Galvan, The Ohlone Indian Tribe, Fremont;
- Vincent Medina, Tribal Consultant, The Ohlone Indian Tribe, San Lorenzo;
- Desiree Vigil, THPO, The Ohlone Indian Tribe, Burlingame; and,
- Kenneth Woodrow, Chairperson, Wuksache Indian Tribe/Eshom Valley Band; Salinas.

No responses were received as of August 31, 2023.

3.5.1 Environmental Setting

Prehistoric

The aboriginal inhabitants of Mountain View belonged to a group known as the *Puichon* subgroup of the Ohlone (also known as *Castonaon/Ohlone*) who occupied the area between the lower San Francisquito Creek and lower Stevens Creek within present-day Menlo Park, Palo Alto and Mountain View.

No known Native American villages, trails, traditional use areas or contemporary use areas have been identified in, adjacent or near the project sites.

None of the known prehistoric mound sites were located within or adjacent to the project sites. The CHRIS/NWIC records search (File No. 23-0019) was negative for Native American prehistoric, combined prehistoric/historic, and/or ethnographic sites within the project sites and adjacent areas.

Historic

Hispanic Period

The Spanish philosophy of government in northwestern New Spain was directed at the founding of presidios, missions, and secular towns with the land held by the Crown (1769-1821), while the later Mexican Period policy (1822-1848) stressed individual ownership of the land (Hart 1987). None of the known routes of Spanish expeditions proceed through or near the project site.

The project was located within the Rincon de San Francisquito, a rancho finally confirmed to Maria Concepcion Valencia de Rodriquez in 1868. No adobe dwellings or other structures and/or features, etc. have been identified in or adjacent to the project sites.

American Period

Both New and Old Mountain View were located south of the general project area between the Southern Pacific railroad tracks and present-day El Camino Real (former San Jose and San Francisco Road) (Garaventa and Anastasio 1990 after various). No known American Era Resources were identified within the project sites as part of the records search and/or as a result of a limited historic map review. The 1943 US Water Department Palo Alto quadrangle shows the project within tidal marsh with (apparently) salt marsh further to the north. By 1961, as shown on the Palo Alto topographic quadrangle, the project site and vicinity were designated “Sewage Disposal.”

Records Search Results

The Basin study was completed to determine if significant cultural resources were or are present within or adjacent to the proposed pedestrian bridge replacements within the Shoreline Golf Links. The CHRIS/NWIC records search was negative for reports and/or resources within or adjacent to the project site. One built environment resource has been recorded within a 1,000-foot radius of the project sites.

No known ethnographic Native American villages, trails, traditional use areas or contemporary use areas and/or other features of cultural significance have been identified within or adjacent to the project site. No known potential Hispanic Period archaeological resources have been reported within or adjacent to the project site. No American Period archaeological sites have been recorded or reported within or adjacent to the project site. No listed or known potential NRHP and/or CRHR are located within or adjacent to the project site. No other significant or potentially significant local, state or federal cultural resources/historic properties, landmarks, points of interest have been identified within or adjacent to the project site.

The project site appears to have a low archaeological sensitivity for unexpected discoveries of prehistoric archaeological resources due to their location within former tidal marsh not suitable for occupation. There are no recorded or reported prehistoric sites, ethnographic Native American resources, and/or historic era sites/resources within or adjacent to the two bridge replacement locations.

3.5.2 Regulatory Setting

Federal Regulations

National Historic Preservation Act

Federal protection is legislated by the National Historic Preservation Act of 1966 (NHPA) and the Archaeological Resource Protection Act of 1979. These laws maintain processes for determination of the effects on historical properties eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA and related regulations (36 Code of Federal Regulations [CFR] Part 800) constitute the primary federal regulatory framework guiding cultural resources investigations and require consideration of effects on properties that are listed or eligible for listing in the NRHP. Impacts to properties listed in the NRHP must be evaluated under CEQA.

State Regulations

California Environmental Quality Act

Pursuant to CEQA, a historical resource is a resource listed in, or eligible for listing in, the California Register of Historical Resources (CRHR). In addition, resources included in a local register of historic resources or identified as significant in a local survey conducted in accordance with state guidelines are also considered historic resources under CEQA, unless a preponderance of the facts demonstrates otherwise. Per CEQA, the fact that a resource is not listed in or determined eligible for listing in the CRHR or is not included in a local register or survey shall not preclude a Lead Agency from determining that the resource may be a historic resource as defined in California Public Resources Code (PRC) Section 5024.1. CEQA applies to archaeological resources when (1) the archaeological resource satisfies the definition of a historical resource or (2) the archaeological resource satisfies the definition of a “unique archaeological resource.” A unique archaeological resource is an archaeological artifact, object, or site that has a high probability of meeting any of the following criteria:

1. The archaeological resource contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.

2. The archaeological resource has a special and particular quality such as being the oldest of its type or the best available example of its type.

3. The archaeological resource is directly associated with a scientifically recognized important prehistoric or historic event or person.

California Register of Historical Resources

The California Register of Historical Resources (CRHR) is administered by the State Office of Historic Preservation and encourages protection of resources of architectural, historical, archeological, and cultural significance. The CRHR identifies historic resources for state and local planning purposes and affords protections under CEQA. Under Public Resources Code Section 5024.1(c), a resource may be eligible for listing in the CRHR if it meets any of the NRHP criteria.

Historical resources eligible for listing in the CRHR must meet the significance criteria described previously and retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if it maintains the potential to yield significant scientific or historical information or specific data.

The concept of integrity is essential to identifying the important physical characteristics of historical resources and, therefore, in evaluating adverse changes to them. Integrity is defined as "the authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance." The processes of determining integrity are similar for both the CRHR and NRHP and use the same seven variables or aspects to define integrity that are used to evaluate a resource's eligibility for listing. These seven characteristics include 1) location, 2) design, 3) setting, 4) materials, 5) workmanship, 6) feeling, and 7) association.

California Native American Historical, Cultural, and Sacred Sites Act

The California Native American Historical, Cultural, and Sacred Sites Act applies to both state and private lands. The act requires that upon discovery of human remains, construction or excavation activity must cease and the county coroner be notified.

Public Resources Code Sections 5097 and 5097.98

Section 15064.5 of the CEQA Guidelines specifies procedures to be used in the event of an unexpected discovery of Native American human remains on non-federal land. These procedures are outlined in Public Resources Code Sections 5097 and 5097.98. These codes protect such remains from disturbance, vandalism, and inadvertent destruction, establish procedures to be implemented if Native American skeletal remains are discovered during construction of a project, and establish the Native American Heritage Commission (NAHC) as the authority to resolve disputes regarding disposition of such remains.

Pursuant to Public Resources Code Section 5097.98, in the event of human remains discovery, no further disturbance is allowed until the county coroner has made the necessary findings regarding the origin and disposition of the remains. If the remains are of a Native American, the county coroner must notify the NAHC. The NAHC then notifies those persons most likely to be related to the Native American remains. The code section also stipulates the procedures that the descendants may follow for treating or disposing of the remains and associated grave goods.

Health and Safety Code, Sections 7050 and 7052

Health and Safety Code Section 7050.5 declares that, in the event of the discovery of human remains outside a dedicated cemetery, all ground disturbances must cease, and the county coroner must be notified. Section 7052 establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives.

California Penal Code Section 622.5

California Penal Code Section 622.5 provides misdemeanor penalties for injuring or destroying objects of historic or archaeological interest located on public or private lands but specifically excludes the landowner.

Government Code Section 6254(r)

Government Code explicitly authorizes public agencies to withhold information from the public relating to Native American graves, cemeteries, and sacred places maintained by the Native American Heritage Commission.

Government Code Section 6250 et. seq.

Records housed in the Information Centers of the California Historical Resources Information System (CHRIS) are exempt from the California Public Records Act.

Local Regulations

Mountain View General Plan

The following goal and policies from the Mountain View 2030 General Plan (City of Mountain View, 2012) Land Use Element relate to protection of historic and cultural resources.

Goal LUD-11: Preserved and protected important historic and cultural resources.

Policy LUD 11.5: Archaeological and paleontological site protection. Require all new development to meet state codes regarding the identification and protection of archaeological and paleontological deposits.

Policy LUD 11.6: Human remains. Require all new development to meet state codes regarding the identification and protection of human remains.

3.5.3 Discussion

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

No Impact. There are no historical resources located on or within the immediate vicinity of the two golf course bridges that would be affected by the project.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less Than Significant with Mitigation Incorporated. The CHRIS/NWIC records search conducted for the project site indicated that there are no known archeological resources that have been identified within or adjacent to the project site. Additionally, the project site appears to have a low archaeological sensitivity for unexpected discoveries of prehistoric archaeological resources due to their location within former tidal marsh not suitable for occupation. Although archaeological discovery is unlikely, in the event that archaeological resources are discovered, implementation of Mitigation Measure CUL-1 would bring project related impacts to a less-than-significant level.

Impact CUL-1: Construction of the project could potentially result in disturbance to both recorded and unknown archaeological resources.

> **Mitigation Measure CUL-1: Inadvertent Discovery of Archaeological Resources.** The City shall retain a Professional Archaeologist on an "on- call" basis during ground disturbing construction activities to review, identify and evaluate any potential cultural resources that may be inadvertently exposed during construction. The Professional Archaeologist shall review and evaluate any discoveries to determine if they are historical resource(s) and/or unique archaeological resources under the California Environmental Quality Act (CEQA).
>
> If the Professional Archaeologist determines that any cultural resources exposed during construction constitute a historical resource and/or unique archaeological resource under CEQA, he/she shall notify the City and other appropriate parties of the evaluation and recommend mitigation measures to mitigate to a less-than significant impact in accordance with California Public Resources Code Section 15064.5. Mitigation measures may include avoidance, preservation in-place, recordation, additional archaeological testing and data recovery among other options. The completion of a formal Archaeological Monitoring Plan (A.M.P) and/or Archaeological Treatment Plan (ATP) that may include data recovery may be recommended by the Professional Archaeologist if significant archaeological deposits are exposed during ground disturbing construction. Development and implementation of the A.M.P and ATP and treatment of significant cultural resources will be determined by the City in consultation with any regulatory agencies.
>
> A Monitoring Closure Report shall be filed with the City at the conclusion of ground disturbing construction if archaeological and Native American monitoring of excavation was undertaken.

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Less than Significant Impact with Mitigation Incorporated. As stated, no known archaeological resources have been identified on or near the project site. Additionally, the project site is located within a former landfill and former tidal marsh not suitable for occupation. Therefore, the project is not anticipated to disturb human remains. However, in the event that human remains are inadvertently discovered, the project will implement the following mitigation measures that would reduce potential impacts to a less than significant level.

Impact CUL-2: Project excavation could disturb previously unknown buried archaeological resources and/or human remains.

> **Mitigation Measure CUL-2: Inadvertent Discovery of Human Remains.** In accordance with Section 7050.5, Chapter 1492 of the California Health and Safety Code and Sections 5097.94, 5097.98 and 5097.99 of the Public Resources Code, if potential human remains are found, the lead agency (City of Mountain View) staff and the Santa Clara County Coroner shall be immediately notified of the discovery. The coroner would provide a determination regarding the nature of the remains within 48 hours of notification. No further excavation or disturbance of the identified material, or any area reasonably suspected to overlie additional remains, can occur until a determination has been made. If the County Coroner determines that the remains are, or are believed to be, of Native American ancestry, the coroner would notify the Native American Heritage Commission within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the Native American Heritage Commission must immediately notify those persons it believes to be the Most Likely Descendant from the deceased Native American. Within 48 hours of this notification, the Most Likely Descendant would recommend to the lead agency their preferred treatment of the remains and associated grave goods.

Implementation of mitigation measures MM CUL-1 and MM CUL-2 would ensure that the project would not have a significant impact on buried archaeological resources. **(Less than Significant Impact with Mitigation Incorporated)**

3.6 ENERGY

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

3.6.1 Environmental Setting

Energy consumption is closely tied to the issues of air quality and greenhouse gas (GHG) emissions, as the burning of fossil fuels and natural gas for energy has a negative impact on both, and petroleum and natural gas currently supply most of the energy consumed in California.

In general, California's per capita energy consumption is relatively low, in part due to mild weather that reduces energy demand for heating and cooling, and in part due to the State's proactive energy efficiency programs and standards. According to the California Energy Commission, Californians consumed about 280,738 gigawatt hours (GWh) of electricity and 11,923 million therms of natural gas in 2021 (CEC 2023a and CEC 2023b).

In 2021, total electricity use in Santa Clara County was 16,905 million kilowatt hours (kWh), including 12,632 million kWh of consumption for non-residential land uses (CEC 2023a). Natural gas consumption was 417 million therms in 2021, including 181 million therms from non-residential uses (CEC 2023b).

Energy conservation refers to efforts made to reduce energy consumption to preserve resources for the future and reduce pollution. It may involve diversifying energy sources to include renewable energy, such as solar power, wind power, wave power, geothermal power, and tidal power, as well as the adoption of technologies that improve energy efficiency and adoption of green building practices. Energy conservation can be achieved through increases in efficiency in conjunction with decreased energy consumption and/or reduced consumption from conventional energy sources.

3.6.2 Regulatory Setting

Since increased energy efficiency is so closely tied to the State's efforts to reduce GHG emissions and address global climate change, the regulations, policies, and action plans aimed at reducing GHG emissions also promote increased energy efficiency and the transition to renewable energy sources. The U.S. EPA and the State address climate change through numerous pieces of legislation, regulations, planning, policy-making, education, and implementation programs aimed at reducing energy consumption and the production of GHG.

The proposed project would not involve the development of facilities that include energy intensive equipment or operations. While there are numerous regulations that govern GHG emissions reductions through increased energy efficiency, the following regulatory setting description focuses only on regulations that: 1) provide the appropriate context for the proposed project's potential energy usage; and 2) may directly or indirectly govern or influence the amount of energy used to develop and operate the proposed improvements. For example, the project would not result in permanently occupied buildings and thus the State building code requirements pertaining to energy efficiency are not discussed below. See the Environmental and Regulatory Setting discussion in Section 3.8, Greenhouse Gas Emissions, for a description of the key regulations related to global climate change, energy efficiency, and GHG emission reductions.

State Regulations

Low Carbon Fuel Standard Regulation

CARB initially approved the LCFS regulation in 2009, identifying it as one of the nine discrete early action measures in the 2008 Scoping Plan to reduce California's GHG emissions. The LCFS regulation is designed to encourage the use of cleaner low-carbon transportation fuels in California, encourage the production of those fuels, and therefore, reduce GHG emissions and decrease petroleum dependence in the transportation sector. The LCFS regulation defines a Carbon Intensity, or "CI," reduction target (or standard) for each year, which the rule refers to as the "compliance schedule."

The LCFS regulation initially required a reduction of at least 10 percent in the CI of California's transportation fuels by 2020. CARB approved some amendments to the LCFS in December 2011, which were implemented on January 1, 2013. In September 2015, the Board approved the re-adoption of the LCFS, which became effective on January 1, 2016, to address procedural deficiencies in the way the original regulation was adopted. The 2015 rulemaking included many amendments, updates, and improvements to the program, including a compliance schedule that maintained the 2009 LCFS regulation's target of a 10 percent reduction in average carbon intensity by 2020 from a 2010 baseline. In 2018, the Board approved amendments to the regulation, which included strengthening and smoothing the carbon intensity benchmarks through 2030 in-line with California's 2030 GHG emission reduction target enacted through SB 32, adding new crediting opportunities to promote zero emission vehicle adoption, alternative jet fuel, carbon capture and sequestration, and advanced technologies to achieve deep decarbonization in the transportation sector (CARB, 2020).

3.6.3 Discussion

Would the project:

a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than Significant Impact. The proposed project consists of the demolition and removal of two existing bridges and the installation of two new bridges. Construction activities would require the use of heavy-duty off-road construction equipment and on-road vehicles (e.g., passenger vehicles truck trips for deliveries and hauling) that would combust fuel, primarily diesel and gasoline. The use of this fuel energy would be necessary to construct the project. In addition, the

proposed project would include the use of prefabricated materials and would reuse existing concrete abutments for Bridge #27. These features would result in fewer hauling and vendor trips associated with transportation of construction materials to and from the site, and therefore less construction-related fuel combusted. The proposed project would not change the operation of the golf course, result in new operations-related vehicle miles travelled, or result new electrical or natural gas demand at the golf course. The project, therefore, would not result in the wasteful, inefficient, or unnecessary consumption of energy resources. This impact would be less than significant.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. The proposed project would replace and install two new bridges at the Shoreline Golf Links golf course within the City of Mountain View. Project construction would require the use of construction equipment and generate construction-related vehicle trips that would combust fuel, primarily diesel and gasoline. As discussed under response a), the proposed project involves construction of two new bridges and would not increase energy consumption over the long term. There are state or local plans for renewable energy or energy efficiency that directly apply to the proposed project. The project, therefore, would not conflict with nor obstruct a state or local plan adopted for the purposes of increasing the amount of renewable energy or energy efficiency. No impact would occur.

3.7 GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? *Note: Refer to Division of Mines and Geology Special Publication 42.*	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

3.7.1 Environmental Setting

The following discussion is based on a foundation report prepared for the project site by Parikh Consultants Inc. dated August 15, 2022. and is included in this initial study as Appendix E.

Site Geology

The project is located within the Coast Ranges Geomorphic Province and adjacent to the southern San Francisco Bay. Geologic unit extents and descriptions have been derived from “Maps of Quaternary Deposits and Liquefaction Susceptibility in the Central San Francisco Bay Region, California.”

Project site geology indicates the site is underlain by artificial fill over estuarine mud (afem). The unit is described as fill deposited over sediments along the margins of San Francisco Bay and other estuarine deposits mapped in the Sacramento/San Joaquin delta. The fill may be engineered and/or non-engineered material and each may occur within the same area. This mapped artificial fill overlies estuarine sediment and was placed to form new land. The thickness of the fill overlying estuarine sediment is typically five to twenty feet. Depth to bedrock was not revealed during this investigation, however a well drilled about 6,000 feet south-east of the project site did not intersect bedrock to a maximum depth of about 750 feet below surface. Geologic and elevation data relative to the site does not indicate the presence of geologic hazards such as landslides, slope failure, rockfalls, or debris flows.

An artificial pond is located adjacent at project site and covers an area about 6.2 acres. Historical aerial photography and topographic maps indicate the Project area was occupied by marshland, agricultural land, and partly by a shallow perennial artificial lake that was mostly infilled.

Subsurface Conditions

Subsoils at the project site consist predominantly of fine-grained cohesive soils of medium plasticity. The general consistency is medium stiff to stiff.

Groundwater

Groundwater is at shallow depth as the site is next to the pond. Filed observation indicated that the water may be just a couple feet below grade. The Cone Penetration Tests (CPT) data interpretation appears to indicate that the groundwater level could be at ground surface. Groundwater may vary with the passage of time due to seasonal groundwater fluctuation, local irrigation practice, surface and subsurface flows, ground surface run-off, and other factors that may not be present at the time of investigation.

Seismic Conditions

The project site is located in a seismically active part of northern California. Santa Clara County and the rest of the Bay Area are in one of the most active seismic regions in the United States. Many active faults exist in the regional area and can produce earthquakes that may cause strong ground shaking at the project site. Each year, low- and moderate-magnitude earthquakes occurring within or near the Bay Area are felt by residents. Since the mid-nineteenth century, hundreds of earthquakes have been felt in Santa Clara County. The closest major faults to the project site are the Hayward Fault.

3.7.2 Regulatory Setting

State Regulations

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act regulates development in California near known active faults due to hazards associated with surface fault ruptures. There are no Alquist-Priolo earthquake fault zones on the project site (CDC 2022).

Seismic Hazard Mapping Act

The Seismic Hazard Mapping Act was passed in 1990 following the Loma Prieta earthquake to reduce threats to public health and safety and to minimize property damage caused by earthquakes. The act directs the U.S. Department of Conservation to identify and map areas prone to the earthquake hazards of liquefaction, earthquake-induced landslides, and amplified ground shaking. The act requires site-specific geotechnical investigations to identify potential seismic hazards and formulate mitigation measures prior to permitting most developments designed for human occupancy within the Zones of Required Investigation.

California Building Code

The 2019 2022? California Building Codes (CBC) cover grading and other geotechnical issues, building specifications, and non-building structures.

California Public Resources Code

Section 5097 of the Public Resources Code specifies the procedures to be followed in the event of the unexpected discovery of historic, archaeological, and paleontological resources, including human remains, historic or prehistoric resources, paleontological resources on nonfederal land. The disposition of Native American burials falls within the jurisdiction of the California Native American Heritage Commission (NAHC). Section 5097.5 of the Code states the following:

> *No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.*

3.7.3 Discussion

Would the project:

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other significant evidence of a known fault?

No Impact. A review of the Mountain View Alquist-Priolo Earthquake Fault Zone Map indicates that no Alquist Priolo Earthquake Fault zones are mapped trending through or immediately adjacent to the project sites (Santa Clara County 2012).

ii) Strong seismic ground shaking?

Less Than Significant Impact. The project is located in the seismically active San Francisco Bay Region. Significant earthquakes have occurred in the San Francisco Bay Area and are believed to be associated with crustal movements along a system of subparallel fault zones that generally trend in a northwesterly direction. The project proposes to replace two structurally deficient golf cart bridges within the Shoreline Golf Links golf course. Strong ground-shaking at the project site will probably occur during the design life of the project as a result of a major earthquake on one of the active faults in the region. The project would not create potential for or exacerbate existing conditions related to seismic ground shaking. Therefore, the impact is considered less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Liquefaction occurs when loose, saturated sandy soils lose strength and flow like a liquid during earthquake shaking. Ground settlement often accompanies liquefaction. Soils most susceptible to liquefaction are saturated, loose, silty sands, and uniformly graded sands**.** The project site is located in an area with very high liquefaction susceptibility according to the Maps of Quaternary Deposits and Liquefaction Susceptibility in the Central San Francisco Bay Region, California; USGS in Cooperation with the California Geological Survey (see Appendix E) for Liquefaction Susceptibility Map for the site). Based on the exploration data at site, the subsoils are primarily cohesive soils. There are isolated pockets and lenses of medium dense sand and gravel in the clayey deposits. However, these locally encountered sand and gravel pockets are relatively thin and not continuous. Therefore, liquefaction triggering potential exists at the site, but it is considered to have relatively insignificant impact on foundation design of the bridge replacement. This impact would be less than significant.

iv) Landslides?

No Impact. The project site has a relatively flat topography except for small intermittent grassy slopes. The project site is not located in or adjacent to any mapped landslides and is not located within a county or state regulatory zone for landsliding (California Geological Survey 2006). Once replaced, the new bridges would function the same as the existing bridges. Therefore, the proposed project would not create or exacerbate landslide conditions on or adjacent to the project site. No impact would occur.

b) Result in significant soil erosion or the loss of topsoil?

Less Than Significant Impact. The project site is in a relatively flat area and would not be exposed to substantial slope instability, erosion, or landslide related hazards. In order to reduce the potential for temporary erosion during project construction, erosion control measures would be implemented as discussed in Section 2.4, Standard Specifications. Once the bridges are installed, disturbed soils would be returned to pre-project conditions (repaved as roadway or natural surface pathway). See Section 3.9 of this document for a complete discussion regarding erosion.

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

Less Than Significant Impact. Subsidence is the sinking of the Earth's surface in response to geologic or man-induced causes. Lateral spreading involves the lateral movement of a liquefied soil layer (and overlying layers) toward a free face. Lateral spreading is typically associated with liquefaction of one or more subsurface layers near the bottom of an exposed slope.

As stated above, the proposed bridge replacements are located in a liquefaction hazard area that could become unstable due to liquefaction subsidence, collapse, or lateral spreading. This is determined to have a less than significant impact because the proposed improvements are the replacement of existing golf cart bridges, the foundations for which have been designed according to site specific conditions as evaluated in the foundation report prepared by Parikh Consultants Inc. dated August 15, 2022 and the proposed improvements will not house people for residence or work. The project would have a less than significant impact on landslide potential, lateral spreading, subsidence, liquefaction or collapse.

d) Be located on expansive soil, as noted in the 2010 California Building Code, creating substantial direct or indirect risks to life or property?

Less Than Significant Impact. The project proposes to replace two structurally deficient golf cart bridges on golf course. The project may occur in expansive soils, however, it would not include construction of habitable structures and is not expected to create substantial risks to life or property because of expansive soil. The impact is considered less than significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The project proposes to replace two structurally deficient golf cart bridges within the Shoreline Golf Links Golf Course. Septic tanks or alternative wastewater facilities are not included as part of the proposed project.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant Impact with Mitigation Incorporated. The Geotechnical Report (Parikh Consultants 2022) notes fill and alluvial soils are present in the area. The proposed project could result in excavation and earth moving activities beyond prior depths of disturbance, but would remain within non-native fill. Alluvial soils along creeks and engineered fill soils are not generally expected to contain fossils. The project has a low risk of encountering unique paleontological resources, however the possibility remains that the project could encounter paleontological resources. Mitigation Measure GEO-1 would ensure that if discovered, paleontological resources would be protected. Implementation of Mitigation Measure GEO-1 would reduce potentially significant impacts to a less than significant level.

Proposed project excavation would occur at an average depth of around six feet. Fossils are found in sedimentary rock strata and gravel layers. Ground disturbing works is anticipated to be predominantly in previously disturbed ground. Where excavation is not in disturbed ground, it is

anticipated to be in surficial soils. The project has a low risk of encountering unique paleontological resources, due to the urban developed nature of the site. However, there is still a possibility that the project could encounter paleontological resources. Mitigation Measure GEO-1 would ensure that if discovered, paleontological resources would be protected. Implementation of Mitigation Measure GEO-1 would reduce potentially significant impacts to a less than significant level.

Impact GEO-1: Project construction could unearth paleontological resources, including fossils.

> **Mitigation Measure GEO-1: Stop-work provision**. If paleontological resources are discovered during construction, ground-disturbing activities shall halt immediately until a qualified paleontologist can assess the significance of the discovery. Depending on determinations made by the paleontologist, work may either be allowed to continue once the discovery has been recorded, or if recommended by the paleontologist, recovery of the resource may be required, in which ground-disturbing activity within the area of the find would be temporarily halted until the resource has been recovered. If treatment and salvage is required, recommendations shall be consistent with Society of Vertebrate Paleontology guidelines and current professional standards.

The City of Mountain View shall ensure that information on the nature, location, and depth of all finds is readily available to the scientific community through university curation or other appropriate means.

3.8 GREENHOUSE GAS EMISSIONS

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

3.8.1 Environmental Setting

Gases that absorb and emit infrared thermal radiation (heat) in the atmosphere and affect regulation of the Earth's temperature are known as greenhouse gases (GHGs). There are many compounds present in the Earth's atmosphere which are GHGs, including but not limited to water vapor (H_2O), carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). GHGs allow solar radiation (sunlight) to enter the atmosphere freely. When solar radiation strikes the earth's surface, it is either absorbed by the atmosphere, land, and ocean surface, or reflected back toward space. The land and ocean surface that has absorbed solar radiation warms up and emits infrared radiation toward space. GHGs absorb some of this infrared radiation and "trap" the energy in the earth's atmosphere. Entrapment of too much infrared radiation produces an effect commonly referred to as the "Greenhouse effect." Human activities since the beginning of the Industrial Revolution (approximately 1750) have increased atmospheric GHG concentrations. Average global surface temperatures have risen as a result of GHG emissions. This increase in globally averaged surface temperatures is commonly referred to as "Global Warming," although the term "Global Climate Change" is preferred because effects associated with increased GHG concentrations are not just limited to higher global temperatures (NOAA, 2023b).

GHGs that contribute to climate regulation are a different type of pollutant than criteria or hazardous air pollutants because climate regulation is global in scale, both in terms of causes and effects. Some GHGs are emitted to the atmosphere naturally by biological and geological processes such as evaporation (water vapor), aerobic respiration (carbon dioxide), and off-gassing from low oxygen environments such as swa.m.ps or exposed permafrost (methane); however, GHG emissions from human activities such as fuel combustion (e.g., carbon dioxide) and refrigerants use (e.g., hydrofluorocarbons) significantly contribute to overall GHG concentrations in the atmosphere, climate regulation, and global climate change.

Human production of GHG has increased steadily since pre-industrial times (approximately pre-1880) and atmospheric carbon dioxide concentrations have increased from a pre-industrial value of 280 parts per million (ppm) in the early 1800's to 424 ppm in June 2023 (NOAA 2023a). The effects of increased GHG concentrations in the atmosphere include climate change (increasing temperature and shifts in precipitation patterns and amounts), reduced ice and snow cover, sea level rise, and acidification of oceans. These effects in turn will impact food and water supplies, infrastructure, ecosystems, and overall public health and welfare.

The 1997 United Nations' Kyoto Protocol international treaty set targets for reductions in emissions of four specific GHGs – carbon dioxide, methane, nitrous oxide, and sulfur hexafluoride – and two groups of gases – hydrofluorocarbons and perfluorocarbons. These GHGs are the primary GHGs emitted into the atmosphere by human activities. The six common GHGs are described below.

Carbon Dioxide (CO_2) is released to the atmosphere when fossil fuels (oil, gasoline, diesel, natural gas, and coal), solid waste, and wood or wood products are burned.

Methane (CH_4) is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from the decomposition of organic waste in municipal solid waste landfills and the raising of livestock.

Nitrous oxide (N_2O) is emitted during agricultural and industrial activities, as well as during combustion of solid waste and fossil fuels.

Sulfur hexafluoride (SF_6) is commonly used as an electrical insulator in high voltage electrical transmission and distribution equipment such as circuit breakers, substations, and transmission switchgear. Releases of SF_6 occur during maintenance and servicing as well as from leaks of electrical equipment.

Hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs) are generated in a variety of industrial processes.

GHG emissions from human activities contribute to overall GHG concentrations in the atmosphere and the corresponding effects of global climate change (e.g., rising temperatures, increased severe weather events such as drought and flooding). GHGs can remain in the atmosphere long after they are emitted. The potential for a GHG to absorb and trap heat in the atmosphere is considered its global warming potential (GWP). The reference gas for measuring GWP is CO_2, which has a GWP of one. By comparison, CH4 has a GWP of 25, which means that one molecule of CH_4 has 25 times the effect on global warming as one molecule of CO_2. Multiplying the estimated emissions for non-CO_2 GHGs by their GWP determines their carbon dioxide equivalent (CO_2e), which enables a project's combined global warming potential to be expressed in terms of mass CO_2 emissions. GHG emissions are often discussed in terms of Metric Tons of CO_2e, or $MTCO_2e$.

3.8.2 Regulatory Setting

State Regulations

California Air Resources Board (CARB) is the lead agency for implementing Assembly Bill (AB) 32, the California Global Warming Solutions Act adopted by the Legislature in 2006. AB 32 requires the CARB to prepare a Scoping Plan containing the main strategies that will be used to achieve reductions in GHG emissions in California.

Executive Order B-30-15, 2030 Carbon Target and Adaptation, issued by Governor Brown in April 2015, sets a target of reducing GHG emissions by 40 percent below 1990 levels in 2030. By directing state agencies to take measures consistent with their existing authority to reduce GHG emissions, this order establishes coherence between the 2020 and 2050 GHG reduction goals

set by AB 32 and seeks to align California with the scientifically established GHG emissions levels needed to limit global warming below two degrees Celsius.

To reinforce the goals established through Executive Order B-30-15, Governor Brown went on to sign SB 32 and AB 197 on September 8, 2016. Senate Bill 32 made the GHG reduction target to reduce GHG emissions by 40 percent below 1990 levels by 2030 a requirement as opposed to a goal. Assembly Bill 197 gives the Legislature additional authority over CARB to ensure the most successful strategies for lowering emissions are implemented, and requires CARB to, "protect the state's most impacted and disadvantaged communities …[and] consider the social costs of the emissions of greenhouse gases."

On September 16, 2022, Governor Newson signed into law AB 1279, the California Climate Crisis Act, and SB 1020, the Clean Energy, Jobs, and Affordability Act of 2022. AB 1279 codified California's 2045 carbon neutrality goal and established a GHG emission reduction target of 85% below 1990 levels. SB 1020 set targets for the retail sale of electricity of 90% clean electricity by 2035 and 95% by 2040, and 100% by 2045. It also set a target for 100% clean electricity for electricity serving state agencies by 2035.

Regional Regulations

CARB 2022 Scoping Plan

The CARB Scoping Plan is the comprehensive plan primarily directed at identifying the measures necessary to reach the GHG reduction targets stipulated in AB 32. The third update to the scoping plan, the 2022 Scoping Plan (CARB 2022a), was released in May 2022 and adopted by CARB in December 2022. The plan presents a scenario for California to meet the State goal of reducing GHG emissions 40 percent below 1990 levels by 2030 and to achieve carbon neutrality by 2045 (CARB 2022a). Unlike the previous scoping plans, the 2022 Scoping Plan relies more heavily on the implementation, adoption, and use of existing technologies to reduce GHG emissions over the coming decades, as opposed to technologies that need to be developed. Examples of existing technologies the 2022 Scoping Plan relies upon include the use of renewable energy and energy storage systems (as opposed to polluting alternatives) for the electrical grid and transitioning the transportation sector's mobile sources to zero-emission technologies for light- and heavy-duty vehicles. The 2022 Scoping Plan also differs from its predecessors in that it takes into account carbon sources and sinks from California's natural and working lands and identifies the need for active carbon capture and sequestration technologies for some emissions sectors, such as petroleum refining and the production/processing of stone, clay, glass, and cement.

The continued implementation of existing plans, policies, and regulations adopted for the purposes of reducing GHG emissions remain critical for achieving the State's 2030 and 2045 GHG reduction goals. For example, the 2022 Scoping Plan identifies a goal of achieving a per capita VMT reduction of at least 25 percent below 2019 levels by 2030 and a 30 percent below 2019 levels by 2045, which is related to the implementation of SB 375 and recommendations provided by the Scoping Plan's Environmental Justice Advisory Committee. The 2022 Scoping Plan also acknowledges that, "local governments are also frequently the sources of innovative and practical climate solutions that can be replicated in other areas. Their efforts to reduce GHG emissions within their jurisdictions are vital to achieving the state's near-term air quality and long-term climate goals and can also provide important co-benefits such as improved air quality, local economic benefits, healthier and more sustainable communities, and improved quality of life."

Local Regulations

City of Mountain View Municipal Code

Chapter 16.65 of the City's Municipal Code, Garbage, Rubbish and Weeds Article III Construction and Demolition Debris Diversion, requires covered projects to recycle or divert at least sixty-five percent, or meet the amounts, criteria and requirements specified in the applicable California Green Building Standards Code, whichever is more restrictive, of all materials generated for discard by the project.

3.8.3 Discussion

Global climate change is the result of GHG emissions worldwide; individual projects do not generate enough GHG emissions to influence global climate change. Thus, the analysis of GHG emissions is by nature a cumulative analysis focused on whether an individual project's contribution to global climate change is cumulatively considerable.

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. Construction activities are anticipated to take approximately 14 weeks and would generate GHG emissions from equipment fuel combustion as well as worker, vendor, and haul trips to and from the project site. Construction is expected to take approximately 104 weeks, and ground disturbance would be limited to the locations specified in the project description. As estimated using CalEEMod, project construction activities could generate a total of up to approximately 128 $MTCO_2e$. The proposed project has been designed to minimize potential GHG emissions from construction activities. For example, the project would use prefabricated bridge structures to replace existing bridges and would reuse existing concrete abutments for Bridge #27. Construction activities would also cease to emit GHGs upon completion. Given the low magnitude of the project's construction GHG emissions and the means and methods that would be employed to reduce potential GHG emissions, this impact would be less than significant.

b) Conflict with an applicable policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact. The proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions, including the 2022 Scoping Plan. The policies contained in the 2022 Scoping Plan generally apply to larger projects and uses that result in long-term trip generation and energy consumption (e.g., commercial buildings, residential structures, etc.) and not to a bridge replacement project. No impact would occur.

3.9 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

3.9.1 Environmental Setting

The project site is located at a golf course within the Shoreline Regional Park, a regional recreation area on a closed landfill. Hazardous materials used and stored at the park are likely limited to landscape maintenance products such as fertilizers, herbicides, and/or pesticides. The operation and maintenance of the existing sanitary sewer line may occasionally require the use of hazardous materials in small quantities. No hazardous materials used for sanitary sewer maintenance are stored in Shoreline Regional Park.

3.9.2 Regulatory Setting

Federal Regulations

United States Environmental Protection Agency

The United States Environmental Protection Agency (EPA) was created in 1970 to serve as a single source collection of all federal research, monitoring, standard-setting, and enforcement activities to make sure there is appropriate protection of the environment. The EPA's duty is to create and enforce regulations that protect the natural environment and apply the laws passed by Congress. The EPA is also accountable for establishing national criteria for various environmental programs and enforcing compliance.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) provides a Federal "Superfund" to clean up uncontrolled or abandoned hazardous waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. Through CERCLA, the EPA was given power to seek out those parties responsible for any release and assure their cooperation in the cleanup.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) enacted in 1976 governs the disposal of solid waste and hazardous materials. The Resource Conservation and Recovery Act gives the EPA the power to control the generation, transportation, treatment, storage, and disposal of hazardous substances that cannot be disposed of in ordinary landfills. It also allows for each state to apply their own hazardous waste programs instead of implementing the federal program. on the condition that the state's program. is just as strict in its requirements. This state program. must be permitted by the EPA in order to be used.

State Regulations

California Environmental Protection Agency

The California Environmental Protection Agency (Cal/EPA) was established in 1991 and is comprised of: the California Air Resources Board, the State Water Resources Control Board, the Regional Water Quality Control Board, CalRecycle, the Department of Toxic Substances Control, the Office of Environmental Health Hazard Assessment, and the Department of Pesticide Regulation. This integrated group amalgamates all of California's environmental authority agencies into one and has led the state of California in developing and applying numerous progressive environmental policies in America. The primary goal of the Cal/EPA is to restore, protect, and enhance the environment.

San Francisco Bay Regional Water Quality Control Board

The San Francisco Bay Regional Water Quality Control Board (RWQCB) is one of nine regional water quality control boards that exercise rulemaking and regulatory activities by basins throughout the state. The boards were created by the landmark Porter-Cologne Act. The San

Francisco Bay Regional Water Quality Control Board covers Region 2, which includes Alameda, Contra Costa, San Francisco, Santa Clara (north of Morgan Hill), San Mateo, Marin, Sonoma, Napa, Solano Counties.

The RWQCB oversees cases involving groundwater contamination within the San Francisco Bay Area from Spills, Leaks, Incidents and Clean-up (SLIC) cases. The County of Santa Clara's Department of Environmental Health, however, is charged with oversight of most leaking underground storage tank (LUST) cases. In the incidence of a spill at a project site, the applicant would notify the County of Santa Clara to determine which agency would be the lead regulator - County, RWQCB or Department of Toxic Substance Control (DTSC).

Cortese List

The provisions in Government Code Section 65962.5 are commonly referred to as the "Cortese List." The Cortese list was authorized by the state legislature in 1985. A list of several types of hazardous materials sites is gathered by several agencies as directed by the statute.

Under Government Code Section 65962.5.(a), the Department of Toxic Substances Control shall compile and update as appropriate, but at least annually, and shall submit to the Secretary for Environmental Protection, a list of all of the following:

1. All hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code.

2. All land designated as hazardous waste property or border zone property pursuant to Article 11 (commencing with Section 25220) of Chapter 6.5 of Division 20 of the Health and Safety Code.

3. All information received by the Department of Toxic Substances Control pursuant to Section 25242 of the Health and Safety Code on hazardous waste disposals on public land.

4. All sites listed pursuant to Section 25356 of the Health and Safety Code.

Under Government Code Section 65962.5. (c) the State Water Resources Control Board shall compile and update as appropriate, but at least annually, and shall submit to the Secretary for Environmental Protection, a list of all of the following:

1. All underground storage tanks for which an unauthorized release report is filed pursuant to Section 25295 of the Health and Safety Code.

2. All solid waste disposal facilities from which there is a migration of hazardous waste and for which a California regional water quality control board has notified the Department of Toxic Substances Control pursuant to subdivision (e) of Section 13273 of the Water Code.

3. All cease and desist orders issued after January 1, 1986, pursuant to Section 13301 of the Water Code, and all cleanup or abatement orders issued after January 1, 1986, pursuant to Section 13304 of the Water Code, that concern the discharge of wastes that are hazardous materials.

The proposed project site is not on the Hazardous Waste and Substances Sites (Cortese) List (DTSC 2021).

California Department of Toxic Control

The California Department of Toxic Control, a department of the Cal/EPA, is the primary agency in California for regulating hazardous waste, cleaning up existing contamination, and finding ways to reduce the amount of hazardous waste produced in California. The California Department of Toxic Control regulates hazardous waste primarily under the authority of the Federal Resource Conservation and Recovery Act and the California Health and Safety Code (primarily Division 20, Chapters 6.5 through 10.6, and Title 22, Division 4.5). Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

Local Regulations

Mountain View 2030 General Plan

The following goal and policies of the Mountain View 2030 General Plan (2012) Public Safety Element relate to hazardous materials.

> *Goal PSA-3:* A community protected from fire, hazardous materials and environmental contamination.
>
> > *PSA 3.2: Protection from hazardous materials.* Prevent injuries and environmental contamination due to the uncontrolled release of hazardous materials through prevention and enforcement of fire and life safety codes.
> >
> > *PSA 3.3: Development review.* Carry out development review procedures that encourage effective identification and remediation of contamination and protection of public and environmental health and safety.

3.9.3 Discussion

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact. The project proposes to replace two structurally deficient golf cart bridges on a golf course. Project operations would not involve the routine transport, use or disposal of hazardous materials. Use of hazardous materials would be limited to small quantities of construction fuels and fluids during the temporary construction period as well as small quantities of cleansers and other chemicals for cleaning purposes. These materials would be stored and used in accordance with the manufacturer's specifications. The compliance with existing hazardous materials regulations would reduce any chance of upset conditions to less than significant levels.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact. The proposed replacement of two structurally deficient golf cart bridges would not include the use of hazardous materials after project completion.

Construction of the project would involve the use of hazardous materials (fuels, oils and other vehicle-related products). These materials would be used in relatively small quantities, in compliance with local and state safety requirements. Waste management and materials pollution control BMPs include designated areas for material delivery and storage, materials use, stockpile management, spill prevention and control, solid and hazardous waste management, contaminated soil, concrete waste, sanitary/septic, and liquid waste management would also be implemented as required at the construction sites. With the implementation of these BMPs, the proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving hazardous materials. This impact would be less than significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or hazardous waste within one-quarter mile of an existing or proposed school?

Less than Significant Impact. The project site is not within one-quarter mile of an existing or proposed school. The nearest schools are Monta Loma Elementary School and Theuerkauf Elementary School, located approximately 1.5 and 1.7 miles south of the project site. No structures, except for bridge #27 proposed de-construction as part of the project. Construction activities will be confined entirely to the project site. Excavation would be minimal given the relatively small size of each bridge (See Figure 2-5 and Figure 2-6) Therefore, construction emissions would not significantly affect nearby sensitive receptors (see Section 3.3.3. for additional information). Thus, the proposed project would not create a significant hazard to schools in the vicinity. This impact would be less than significant.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (otherwise known as the Cortese List) (CalEPA 2022, DTSC 2022, SWRCB 2022). No proposed project activities would extend onto this adjacent site, therefore there would be no impact to soil or groundwater at the adjacent site.

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

No Impact. The project site is located approximately 1.3 miles west of the Moffett Federal Airfield. The site is within the Airport Influence Area according to Figure 8 of the Comprehensive Land Use Plan, but outside the Airport Safety Zones depicted in Figure 7 of the Moffett Federal Airfield (Santa Clara County Airport Land Use Commission, 2012). However, the project is the replacement of existing infrastructure and would not include any buildings or aboveground structures. Therefore, the project would not result in a safety hazard or excessive noise for people residing or working in the project area.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The project proposes to replace two structurally deficient golf cart bridges on a golf course. The construction contractor would maintain access for emergency vehicles for the duration of construction and therefore would not significantly impair or physically interfere with an adopted emergency evacuation plan. After project construction is completed, there would be no impediment to vehicular or emergency vehicle access. Thus, the proposed project would have a less-than-significant impact to emergency plans.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

No Impact. The project site is not within the wildland-urban interface (ABAG 2022). The nearest mapped wildland-urban interface is located approximately two miles southwest of the site. The project does not propose new structures within areas designated within the wildland-urban interface and is therefore not subject to wildfire-related building practices.

3.10 HYDROLOGY AND WATER QUALITY

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

3.10.1 Environmental Setting

The project is located in the City of Mountain View, where the climate is Mediterranean. Summers are warm and dry, while winters are mild and wet. However, both summers and winters are somewhat moderated due to the City's relative proximity to the Pacific Ocean, The annual average high temperature is 69 ºF and the annual average low temperature is 51 ºF. Annual average precipitation is 14.7 inches (US Climate Data, 2020).

The project area drains into the Mountain View Slough, which is the engineered channel extension of Permanente Creek, a 13.8-mile perennial stream originating in the Santa Cruz Mountains southwest of the site. The Mountain View Slough discharges directly to San Francisco Bay approximately 1.3 miles north of the project site. The Permanente Creek watershed encompasses

approximately 17.5 square miles. The project site is generally level, and ranges from 10 to 13 feet above mean sea level (Google Earth, 2022).

Bridge #25 and #27 cross over an artificial pond, which provides irrigation water for the golf course. Shoreline Lake, a man-made, 50-acre saltwater lake filled by waters pumped in from the San Francisco Bay that circulate back out into Permanente Creek, is located approximately 1,300 feet west of Bridge #25, across the Mountain View Slough.

3.10.2 Regulatory Setting

The following paragraphs describe the applicable federal, state and local laws and agencies that provide the regulatory framework for analyzing potential hydrology and water quality impacts.

Federal Regulations

Federal Clean Water Act

The Clean Water Act (CWA) is the primary federal legislation governing water quality and forms the basis for several state and local laws throughout the nation. The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Important and applicable sections of the Act are:

- Section 303 of the federal CWA requires states to develop water quality standards to protect the beneficial uses of receiving waters. In accordance with California's Porter/Cologne Act, the Regional Water Quality Control Boards (RWQCBs) of the State Water Resources Control Board (SWRCB) are required to develop water quality objectives that ensure their region meets the requirements of Section 303 of the CWA.

- Section 402 establishes the National Pollutant Discharge Elimination System (NPDES), which is a permitting system for the discharge of any pollutant (except for dredge or fill material) into waters of the U.S. In California, this permit program. is administered by the RWQCBs, and is discussed in detail below.

National Pollutant Discharge Elimination System

The CWA has nationally regulated the discharge of pollutants to the waters of the U.S. from any point source since 1972. In 1987, amendments to the CWA added Section 402(p), which established a framework for regulating nonpoint source storm water discharges under the NPDES. The NPDES General Construction Permit requirements apply to clearing, grading, and disturbances to the ground such as excavation. Construction activities on one or more acres are subject to a series of permitting requirements contained in the NPDES General Construction Permit. This permit requires the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes Best Management Practices (BMPs) to be implemented during project construction. The project sponsor is also required to submit a Notice of Intent (NOI) with the State Water Resources Control Board Division of Water Quality. The NOI includes general information on the types of construction activities that would occur on the site. The project would not disturb one or more acres, and thus is not subject to the Construction General Permit.

State Regulations

Porter-Cologne Water Quality Control Act

The State's Porter-Cologne Water Quality Control Act (Porter-Cologne), as revised in December 2007 (California Water Code Sections 13000-14290), provides for protection of the quality of all waters in the State of California for use and enjoyment by the people of California. It further provides that all activities that may affect the quality of waters of the state shall be regulated to obtain the highest water quality that is reasonable, considering all demands being made and to be made on those waters. The Act also establishes provisions for a statewide program. for the control of water quality, recognizing that waters of the state are increasingly influenced by interbasin water development projects and other statewide considerations, and that factors such as precipitation, topography, population, recreation, agriculture, industry, and economic development vary regionally within the State. The statewide program for water quality control is, therefore, administered most effectively on a local level with statewide oversight. Within this framework, the Act authorizes the State Water Resources Control Board and RWQCBs to oversee the coordination and control of water quality within California.

State Water Resources Control Board and Regional Water Quality Control Boards

Created by the California State Legislature in 1967, the State Water Resources Control Board holds authority over water resources allocation and water quality protection within the State. The five-member State Water Resources Control Board allocates water rights, adjudicates water right disputes, develops statewide water protection plans, establishes water quality standards, and guides the nine RWQCBs. The mission of the State Water Resources Control Board is to, "preserve, enhance, and restore the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations."

The City of Mountain View is under the jurisdiction of the San Francisco Bay RWQCB.

Local Regulations

Stormwater Drainage

The discharge of stormwater from the City's municipal storm sewer system is regulated primarily under the federal Clean Water Act (CWA) and California's Porter-Cologne Water Quality Control Act. The RWQCB implements these regulations at the regional level. Under the CWA, the RWQCB has regulatory authority over actions in waters of the United States, through the issuance of water quality certifications.

As authorized by the CWA, the National Pollutant Discharge Elimination System (NPDES) permit program. controls water pollution by regulating point and non-point sources that discharge pollutants into waters of the United States. Point sources are discrete conveyances such as pipes or outfalls that convey pollutants directly to surface waters. Non-point sources, such as stormwater runoff, convey pollutants indirectly to these waters. The State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards administer the NPDES permit program. in California for general and individual discharge permits. The City is a co-permittee with other members of a regional association known as the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP), which shares a joint municipal discharge permit issued by the San Francisco Bay RWQCB to municipalities in Bay Area counties to allow

the discharge of stormwater runoff into the San Francisco Bay (Order R2-2015-0049) This regional municipal discharge permit and known as the Municipal Regional Stormwater Permit (MRP). New and redevelopment projects within these jurisdictions are subject to applicable provisions of the MRP.

In addition to the MRP, which includes post-construction requirements for new and redevelopment projects, construction projects that disturb one or more acres of soil are required to obtain coverage under the statewide General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit). To be covered under the Construction General Permit, a project applicant would be required to file a Notice of Intent (NOI) with the SWRCB and prepare a Storm Water Pollution Prevention Plan (SWPPP). The subject project is not required to obtain coverage under this permit as it disturbs less than one acre of soil.

Flood Zone Mapping

The National Flood Insurance Program. branch of the Federal Emergency Management Agency (FEMA) maintains maps of floodways and floodplains for the United States. FEMA maps these areas on Flood Insurance Rate Maps or FIRMs. A typical FIRM will show specific flood hazard areas, flood risk zones, and floodplains at a local level of detail. In some identified flood hazard zones, certain types of construction and/or uses are prohibited or property owners are required to carry flood insurance. The project sites are located within a designated Zone X, which is defined as containing areas of 0.2 percent annual chance flood, areas of one percent annual chance flood with average depths of less than one foot or with drainage areas less than one square mile, and areas protected by levees from one percent annual chance flood.[3]

Valley Water

Valley Water is the water resources agency responsible for balancing flood protection needs with the protection of natural water courses and habitat in the Santa Clara Valley. Valley Water serves 16 cities and 1.8 million residents, providing wholesale water supply, operating three water treatment plants, and providing flood protection along the creeks and rivers within Santa Clara County.

Mountain View Municipal Code Chapter 35- Water, Sewage and Other Municipal Services

Section 35.32.3.1 of the Mountain View Municipal Code states:

> "*It shall be unlawful to discharge or cause a threatened discharge to any discharge to any curbside gutter, storm sewer, storm drain gutter, creek or natural outlet any domestic sewage, sanitary sewage, industrial wastes, polluted waters, construction waste, litter or refuse except where permission is granted by the fire chief. Unlawful discharges to storm drains shall include, but are not limited to, discharges from: toilets, sinks, commercial or industrial processes, cooling systems, air compressors, boilers, fabric or carpet cleaning, equipment cleaning, vehicle cleaning, swimming pools, spas, fountains, construction activities (e.g., painting, paving, concrete placement, saw cutting, grading), painting and paint stripping, unless specifically permitted by a*

[3] FEMA. Flood Insurance Rate Maps, Santa Clara County, California and Incorporated Areas, Map Nos. 06085C0036H & 06085C0045H. May 18, 2009.

discharge permit or unless exempted pursuant to regulations established by the fire chief. Additionally, it shall be unlawful to discharge any pollutants or waters containing pollutants that would contribute to violations of the city's stormwater discharge permit or applicable water quality standards."

Section 35.33.11 states:

"All construction projects occurring within city limits shall be conducted in a manner which prevents the release of hazardous materials or hazardous waste to the soil or groundwater, and minimizes the discharge of hazardous materials, hazardous wastes, polluted water and sediment to the storm sewer system. Practices which shall be implemented to meet the intent of this requirement are described in city guidelines. The city may require any additional practices consistent with its NPDES stormwater discharge permit if it concludes that the intent of this section is not being met during the construction process."

The Section goes on to list example sediment and erosion control BMPs such as: (1) silt fences around the site perimeter; (2) gravel bags surrounding catch basins; (3) filter fabric over catch basins; (4) covering of exposed stockpiles; (5) concrete washout areas; (6) stabilized rock/gravel driveways at points of egress from the site; and (7) vegetation, hydroseeding or other soil stabilization methods for high erosion areas.

3.10.3 Discussion

Would the project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact. The proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. There would be no permanent impacts to water quality from the project.

As previously stated, the project does not involve more than one acre of disturbance and is not required to obtain coverage under the Construction General Permit. However, the City's Standard Provisions and Standard Details (July 2019) and notes included in the project plans address nonpoint source pollution including use of appropriate best management practices, unlawful discharge of pollutants into curbs and storm drains, and maintenance of the construction site (refer to Section 2.4 of this document). Implementation of these measures would reduce potential impacts to surface and groundwater quality to less than significant levels.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No Impact. The proposed bridge replacement project would not use groundwater supplies or interfere with groundwater recharge. The project would not increase impervious surfaces, require groundwater, or create demand for water supply.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream. or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial erosion or siltation on- or off-site;

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

iv) Impede or redirect flood flows?

No Impact (i-iv). The proposed project would not alter Permanente Creek or the Mountain View Slough, increase impervious surface area, or otherwise alter the drainage pattern of the project site or area. The project proposes to replace two existing structurally deficient golf cart bridges on a golf course. The project does not include any additional aboveground structures or any permanent aboveground changes to the project site. Temporary ground disturbance would be limited to areas immediately surrounding the foundations and abutments of the two existing bridges. Standard and project-specific BMPs to protect water quality and prevent erosion will be implemented during construction (see response to Question a above). The replacement bridges would not result in increased amounts of impervious surface area and would therefore not increase the volumes of stormwater runoff from the bridge surfaces. Therefore, the project would not result in substantial erosion or siltation on- of off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or Impede or redirect flood flows.

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

Less Than Significant Impact. The project is located within FEMA Flood Zone A, which is defined as areas having a 1% annual chance of flooding. Flood Zone A is considered a high-risk flood zone and would require that new buildings be constructed with finished floor elevations above the identified flood elevation. However, no flood elevation was identified at the project location, and the proposed bridges, which would not be impacted by flooding, would not be subject to these restrictions. There is no risk of pollutant release because the bridges would be designed to facilitate pedestrian and golf cart travel, and would not contain or store pollutants..

A tsunami is a large tidal wave generated by an earthquake, landslide, or volcanic eruption. Tsunami inundation maps have been developed for the San Francisco Bay area. The project site is not within a tsunami inundation zone (California Department of Conservation, 2023), and therefore, it would not be subject to flooding from a tsunami.

Seiches are waves that oscillate in enclosed water bodies, such as reservoirs, lakes, ponds, swimming pools, or semi-enclosed bodies of water. Although the project proposes to replace two existing bridges that cross an artificial pond, there is no risk of pollutant release because the

bridges would be designed to facilitate pedestrian and golf cart travel, and would not contain or store pollutants. This impact would be less than significant.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact. The project proposes to replace two structurally deficient golf cart bridges on a golf course, and does not include new uses that pose water quality hazards. The project would not result in a net increase in impervious pavement. The project would not increase either demand for groundwater or impact existing groundwater in any way. Therefore, the project would not affect groundwater supplies, quality, or management.

3.11 LAND USE AND PLANNING

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

3.11.1 Environmental Setting

The purpose of the project is to replace two structurally deficient bridges within the Shoreline Golf Links golf course, facility, which is located within the Shoreline at Mountain View Regional Park and near the San Francisco Bay shoreline. The project site is designated as Regional Park by the Mountain View 2030 General Plan and Zoned PF-Public Facility.

3.11.2 Discussion

Would the project:

a) Physically divide an established community?

No Impact. The purpose of the project is to replace two structurally deficient bridges within the Shoreline Golf Links golf course, which is within open space that is designated for recreational use. There are no residences on or near the project site. Construction activities would occur entirely within the project boundaries, and the project does not propose any new roads or other infrastructure that would divide an established community. Therefore, there would be no impact.

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

No Impact. As stated, the project would replace two structurally deficient bridges within the Shoreline Golf Links golf course, which is within open space that is designated for recreational use. The project would not conflict with the goals and policies in the Mountain View 2030 General Plan (City of Mountain View, 2012) or with the City's Municipal Code (City of Mountain View, 2022b) The project does not propose general plan amendment or rezoning. Additionally, no new land uses are proposed. Therefore, there would be no impact.

3.12 MINERAL RESOURCES

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

3.12.1 Environmental Setting

There are no mines or mineral resources in the City of Mountain View (City of Mountain View 2012). Additionally, the project site is not a locally-important mineral resource recovery site. The proposed project would not result in excavation of mineral resources or the loss of availability of known mineral resources. The project would therefore have no impact.

3.12.2 Discussion

Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

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

No Impact (Responses a – b). As stated in Section 3.12.1, there are no mines or other mineral resources within the City of Mountain View. The project site has no potential for use in resource recovery and therefore would have no impact on the availability of mineral resources.

3.13 NOISE

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

3.13.1 Environmental Setting

Noise may be defined as loud, unpleasant, or unwanted sound. The frequency (pitch), amplitude (intensity or loudness), and duration of noise all contribute to the effect on a listener, or receptor, and whether the receptor perceives the noise as objectionable, disturbing, or annoying.

The Decibel Scale (dB)

The decibel scale (dB) is a unit of measurement that indicates the relative amplitude of a sound. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a tenfold increase in acoustic energy, while 20 dBs is 100 times more intense, 30 dBs is 1,000 more intense, and so on. In general, there is a relationship between the subjective noisiness, or loudness of a sound, and its amplitude, or intensity, with each 10 dB increase in sound level perceived as approximately a doubling of loudness.

Sound Characterization

There are several methods of characterizing sound. The most common method is the “A-weighted sound level,” or dBA. This scale gives greater weight to the frequencies of sound to which the human ear is typically most sensitive. Thus, most environmental measurements are reported in dBA, meaning decibels on the A-scale. Human hearing matches the logarithmic A-weighted scale, so that a sound of 60 dBA is perceived as twice as loud as a sound of 50 dBA. In a quiet environment, an increase of 3 dB is usually perceptible, however, in a complex noise environment such as along a busy street, a noise increase of less than 3 dB is usually not perceptible, and an increase of 5 dB is usually perceptible. Normal human speech is in the range from 50 to 65 dBA. Generally, as environmental noise exceeds 50 dBA, it becomes intrusive and above 65 dBA noise

becomes excessive. Nighttime activities, including sleep, are more sensitive to noise and are considered affected over a range of 40 to 55 dBA.

Sound levels are typically not steady and can vary over a short time period. The equivalent noise level (L_{eq}) is used to represent the average character of the sound over a period of time. The L_{eq} represents the level of steady noise that would have the same acoustical energy as the sum of the time-varying noise measured over a given time period. L_{eq} is useful for evaluating shorter time periods over the course of a day. The most common L_{eq} averaging period is hourly, but L_{eq} can describe any series of noise events over a given time period.

Variable noise levels are values that are exceeded for a portion of the measured time period. Thus, L01 is the level exceeded one percent of the time and L90 is the level exceeded 90 percent of the time. The L90 value usually corresponds to the background sound level at the measurement location.

Noise exposure over the course of an entire day is described by the day/night average sound level, or L_{dn}, and the community noise equivalent level, or CNEL. Both descriptors represent the 24-hour noise impact on a community. For L_{dn}, the 24-hour day is divided into a 15-hour daytime period (7:00 a.m. to 10:00 p.m.) and a nine-hour nighttime period (10:00 p.m. to 7:00 a.m.) and a 10 dB "penalty" is added to measure nighttime noise levels when calculating the 24-hour average noise level. For example, a 45 dBA nighttime sound level would contribute as much to the overall day-night average as a 55 dBA daytime sound level. The CNEL descriptor is similar to L_{dn}, except that it includes an additional 5 dBA penalty beyond the 10 dBA for sound events that occur during the evening time period (7:00 a.m. to 10:00 p.m.) The artificial penalties imposed during L_{dn} and CNEL calculations are intended to account for a receptor's increased sensitivity to sound levels during quieter nighttime periods.

Sound Propagation

The energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out and travels away from the noise generating source. Theoretically, the sound level of a point source attenuates, or decreases, by 6 dB with each doubling of distance from a point source. Sound levels are also affected by certain environmental factors, such as ground cover (asphalt vs. grass or trees), atmospheric absorption, and attenuation by barriers. Outdoor noise is also attenuated by the building envelope so that sound levels inside a residence are from 10 to 20 dB less than outside, depending mainly on whether windows are open for ventilation or not.

When more than one point source contributes to the sound pressure level at a receiver point, the overall sound level is determined by combining the contributions of each source. Decibels, however, are logarithmic units and cannot be directly added or subtracted together. Under the dB scale, a doubling of sound energy corresponds to a 3 dB increase in noise levels. For example, if one noise source produces a sound power level of 70 dB, two of the same sources would not produce 140 dB – rather, they would combine to produce 73 dB.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear can discern 1-dB changes in sound levels when exposed to steady, single-frequency ("pure-tone") signals in the mid-frequency (1,000–8,000 Hz) range. In typical noisy environments, changes in noise of 1 to 2 dB are generally not perceptible. However, it is widely accepted that people can

begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness.

Noise Effects

Noise effects on human beings are generally categorized as:

- Subjective effects of annoyance, nuisance, and/or dissatisfaction
- Interference with activities such as speech, sleep, learning, or relaxing
- Physiological effects such as startling and hearing loss

Most environmental noise levels produce subjective or interference effects; physiological effects are usually limited to high noise environments such as industrial manufacturing facilities or airports. Predicting the subjective and interference effects of noise is difficult due to the wide variation in individual thresholds of annoyance and past experiences with noise; however, an accepted method to determine a person's subjective reaction to a new noise source is to compare it to the existing environment without the noise source, or the "ambient" noise environment. In general, the more a new noise source exceeds the ambient noise level, the more likely it is to be considered annoying and to disturb normal activities.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1-dB changes in sound levels when exposed to steady, single-frequency ("pure-tone") signals in the mid-frequency (1,000–8,000 Hz) range. In typical noisy environments, changes in noise of 1 to 2 dB are generally not perceptible. However, it is widely accepted that people are able to begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5 dB increase is generally perceived as a distinctly noticeable increase, and a 10 dB increase is generally perceived as a doubling of loudness that would almost certainly cause an adverse response from community noise receptors.

Groundborne Vibration

Vibration is the movement of particles within a medium or object such as the ground or a building. As is the case with airborne sound, groundborne vibrations may be described by amplitude and frequency. Vibration amplitudes are usually expressed in peak particle velocity (PPV) or root mean squared, in inches per second (in/sec). PPV represents the maximum instantaneous positive or negative peak of a vibration signal and is most appropriate for evaluating the potential for building damage. Human response to groundborne vibration is subjective and varies from person to person.

Existing Noise Environment

The City's noise environment consists of transportation and stationary related noise sources. The Mountain View 2030 General Plan (City of Mountain View, 2012) Noise Element identifies roadway traffic, aircraft noise from Moffet Federal Airfield, landscaping maintenance equipment, construction, loading and unloading, commercial activities and everyday neighborhood activities as the predominant noise sources in the City. The project site is currently developed and consists of a golf course with pedestrian and golf cart access pathway and bridges. The primary sources

of noise at and around the golf course are golf course attendants, automobiles and trucks traveling along US 101, Shoreline Boulevard, Garcia Avenue, and Amphitheatre Parkway, Shoreline Amphitheatre, and aircraft flyover.

Sensitive Receptors

Noise sensitive receptors are areas where unwanted sound or increases in sound may have an adverse effect on people or land uses. Residential areas, hospitals, schools, and parks are examples of noise receptors that could be sensitive to changes in existing environmental noise levels. The closest noise sensitive receptors to the project site would be the golf course visitors and users of the Shoreline Regional Park.

3.13.2 Regulatory Setting

Local Regulations

Mountain View General Plan

The purpose of Noise Element in the Mountain View 2030 General Plan (City of Mountain View, 2012) is to guide policies for addressing exposure to current and projected noise sources in Mountain View. Table 7-1 of the Noise Element contains outdoor noise environment guidelines. Normally acceptable noise levels for golf courses are 55-70 CNEL, while noise levels of 70-80 CNEL are normally unacceptable and above 80 CNEL is clearly unacceptable (City of Mountain View, 2012).

Mountain View Municipal Code

Section 8.70 of the City Code restricts construction activity to the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday. No construction activity is permitted on Saturday, Sunday or holidays without written approval from the City. If the hours of construction activity change, then the general contractor, applicant, developer or owner is required to erect a sign at a prominent location on the construction site to let subcontractors and material suppliers know of the working hours.

3.13.3 Discussion

Would the project:

a) Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?

Less than Significant Impact. The proposed project is the replacement and installation of two new bridges which would not generate a permanent increase in ambient noise levels in the vicinity of the project once installed. As described in Section 2.3, construction of the proposed project is anticipated to take approximately 14 weeks. During this time, construction equipment (e.g., crane, bore/drill rig, backhoes, etc.) would be required to demolish and remove the two existing bridges and install the two new bridges. These activities could temporarily increase noise levels in the project area. Construction noise would be intermittent, occurring only when equipment is in operation, and the City would comply with Municipal Code Section 8.70 – Construction Noise, which limits construction activities to the hours of 7:00 a.m. to 6:00 p.m., Monday through Friday.

Per the construction notes section of the plan set prepared by Biggs Cardosa Associates Inc., construction of the proposed project would occur between 7:30 AM and 4:00 PM, Monday through Friday, excluding legal holidays. These "normal working hours" are within the construction hours as described in the Municipal Code Section 8.70, therefore the proposed project comply with the construction activity limits as set forth in the Municipal Code. Golf course and park visitors would move around and therefore would not be continuously exposed to construction noise levels. There are no other noise sensitive receptors within 1,000 feet of the work areas. Given the short duration of project construction activities and compliance with the City's Standard Specifications, the project would not generate a significant temporary noise impact, nor would it conflict with an applicable standard. The impact is considered less than significant.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. The potential for groundborne vibration and noise is typically greatest when vibratory or large equipment such as bore/drill rigs are in operation. For the proposed project, these types of equipment would primarily operate during installation of the cast-in drilled piles for Bridge #25. This equipment would, at worst-case, operate at least 130 feet or more from any structure, with intervening elevation differences, creek bed, and other factors that would reduce direct transmission of groundborne vibration to nearby buildings. Receptors would be moving around the site and not continuously exposed to construction-related vibrations. The proposed project, therefore, would not generate substantial or excessive groundborne vibration levels.

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

No Impact. The project site is located approximately 1.5 miles west of the Moffett Federal Airfield. The site is within the Airport Influence Area according to Figure 8 of the Comprehensive Land Use Plan, but outside the 65 CNEL noise contour depicted in Figure 5 for the airfield (Santa Clara County Airport Land Use Commission, 2012). Although the proposed project is within the Airport Influence Area, the proposed project is not considered sensitive to single-event noise levels or overflights. Therefore ,the proposed project is not located within a noise impact zone and would not expose people working in the area to excessive noise levels.

3.14 POPULATION AND HOUSING

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

3.14.1 Discussion

Would the project:

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

No Impact. As discussed in Chapter 2, Project Description, the project would replace two existing golf cart bridges that are located within the Shoreline Golf Links facility. The construction of the two bridges would be confined to within the project boundary. The project does not propose new homes, businesses, or other infrastructure that would directly or indirectly induce substantial unplanned population growth. No Impact would occur.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. As stated, the project would replace two existing deficient golf cart bridges. Construction activities would be confined within the project boundary and would have no effect on housing. Therefore, the project would not displace a substantial number of people or require any new housing. No impact would occur.

3.15 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?	☐	☐	☐	☒
ii) Police protection?	☐	☐	☐	☒
iii) Schools?	☐	☐	☐	☒
iv) Parks?	☐	☐	☐	☒
v) Other public facilities?	☐	☐	☐	☒

3.15.1 Environmental Setting

Fire Protection

The Mountain View Fire Department serves the residents of Mountain View, there are five stations servicing the City. In addition to direct fire suppression and prevention, the Mountain View Fire Department performs support functions such as emergency medical services, rescue services, hazardous and toxic materials emergency response, coordination of City-wide disaster response efforts, enforcement of fire and life safety codes, enforcement of state and federal hazardous materials regulations, and investigation of fire cause, arson and other emergency events for cause and origin (City of Mountain View Information and Resources 2022). The stations are found as listed below:

- Fire Station No. 1, 251 S. Shoreline Blvd.
- Fire Station No. 2, 160 Cuesta Dr.
- Fire Station No. 3, 301 N. Rengstorff Ave.
- Fire Station No. 4, 229 N. Whisman Rd.
- Fire Station No. 5, 2195 N. Shoreline Blvd.

Police

The Mountain View Police Department is responsible for public safety in the project area. The Mountain View Police Department has an office at 1000 Villa Street.

Schools

The City has three school districts and 21 schools total: 14 elementary, five high schools, and two middle schools (California Department of Education 2023).

Parks

The project site is located within the Shoreline Golf Links golf course, public facility, which is located within the Shoreline at Mountain View Regional Park. The Permanente Creek Trail is located to the west, adjacent to the project site immediately south of Michael's at Shoreline Restaurant. Shoreline Park, which features recreation trails and a lookout point is located south of the project site and west of the Shoreline Amphitheatre ().

3.15.2 Discussion

Would the project:

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

i) Fire protection?

ii) Police?

iii) Schools?

iv) Parks?

v) Other public facilities?

No Impact. The purpose of the project is to replace two structurally deficient bridges within the Shoreline Golf Links golf course, which is located within the Mountain View Regional Park. The project does not propose any new housing or businesses and therefore would not induce population growth, therefore it would not increase enrollment at local schools or require the provision of new or physically altered schools, nor increase the use of local and regional parks or require the provision of new or physically altered parks or other governmental facilities. Additionally, the project would not adversely impact public service ratios. Further, construction activities would be confined to the project site. Therefore, the project would have no impact.

3.16 RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

3.16.1 Environmental Setting

The City of Mountain View has nearly 1,000 acres of parks and open space land, divided among 39 park sites that include 18 mini-parks (1 undeveloped), 13 neighborhood/school parks, five neighborhood parks not associated with school sites, two community parks, and one regional park. The project site is located at the Shoreline Golf Links golf course which is located within the Shoreline Regional Park. Encompassing 753 acres, the Shoreline Regional Park is the largest and only regional park in Mountain View. The Shoreline Regional Park and Stevens Creek Trail comprise approximately 80 percent of all the parks and open space acreage in Mountain View.

3.16.2 Discussion

Would the project:

a) Increase the use of existing neighborhood or regional parks or other recreational facilities such that significant physical deterioration of the facility would occur or be accelerated?

b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact (Responses a - b). The project proposes to replace two existing structurally deficient bridges within the Shoreline Golf Links golf course, which is located within the existing Shoreline at Mountain View Regional Park. The project does not propose to build infrastructure that would increase usage of the golf course or the Shoreline at Mountain View Regional Park. Therefore, the project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. Additionally, the project would not include or require the construction or expansion of recreational facilities. No impact would occur.

3.17 TRANSPORTATION

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

3.17.1 Environmental Setting

The project is located within the Shoreline Golf Links golf course. Regional vehicular access to the project site is provided via Interstate 101, located south of the project site, and from Shoreline Boulevard or Amphitheatre Parkway.

3.17.2 Discussion

Would the project:

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

No impact. The project would not conflict with a program, plan, ordinance or policy addressing the circulation system. The project is the replacement of two structurally deficient bridges on a golf course. The bridge is not for vehicle travel. The new bridges would improve circulation on the property for pedestrians and golf cart drivers. Therefore, no impact would occur.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3(b), which pertains to vehicle miles travelled?

No Impact. The project proposes to replace two structurally deficient bridges. The bridges are for pedestrians and golf carts. The project does not involve new land uses that have the potential to generate vehicle miles traveled (VMT). Therefore, the project will not conflict with CEQA Guidelines section 15064.3(b).

a) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The project proposes to replace two structurally deficient bridges on a golf course. The project does not propose new roads or intersections or changes to the land use of the project site or area. Therefore, the project would not increase hazards due to a geometric design feature or incompatible uses.

c) Result in inadequate emergency access?

No Impact. The project proposes to replace two structurally deficient bridges on a golf course. Construction vehicles would use designated access routes and emergency access would be maintained during construction. Therefore, the project would not impact emergency access.

3.18 TRIBAL CULTURAL RESOURCES

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

3.18.1 Environmental Setting

Please see Section 3.5 Cultural Resources for information about the cultural and tribal cultural setting at the project site.

3.18.2 Regulatory Setting

Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 sets provisions for the intentional removal and inadvertent discovery of human remains and other cultural items from federal and tribal lands. It clarifies the ownership of human remains and sets forth a process for repatriation of human remains and associated funerary objects and sacred religious objects to the Native American groups claiming to be lineal descendants or culturally affiliated with the remains or objects. It requires any federally funded institution housing Native American remains or artifacts to compile an inventory of all cultural items within the museum or with its agency and to provide a summary to any Native American tribe claiming affiliation.

Native American Heritage Commission, Public Resources Code Sections 5097.9 – 5097.991

Section 5097.91 of the Public Resources Code (PRC) established the Native American Heritage Commission (NAHC), whose duties include the inventory of places of religious or social significance to Native Americans and the identification of known graves and cemeteries of Native Americans on private lands. Under Section 5097.9 of the PRC, a state policy of noninterference with the free expression or exercise of Native American religion was articulated along with a

prohibition of severe or irreparable damage to Native American sanctified cemeteries, places of worship, religious or ceremonial sites or sacred shrines located on public property. Section 5097.98 of the PRC specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner. Section 5097.5 defines as a misdemeanor the unauthorized disturbance or removal of archaeological, historic, or paleontological resources located on public lands.

California Native American Graves Protection and Repatriation Act of 2001

Codified in the California Health and Safety Code Sections 8010–8030, the California Native American Graves Protection Act (NAGPRA) is consistent with the federal NAGPRA. Intended to "provide a seamless and consistent state policy to ensure that all California Indian human remains and cultural items be treated with dignity and respect," the California NAGPRA also encourages and provides a mechanism for the return of remains and cultural items to lineal descendants. Section 8025 established a Repatriation Oversight Commission to oversee this process. The act also provides a process for non–federally recognized tribes to file claims with agencies and museums for repatriation of human remains and cultural items.

Assembly Bill 52

Assembly Bill (AB) 52 specifies that a project that may cause a substantial adverse change in the significance of a tribal cultural resource, as defined, is a project that may have a significant effect on the environment. AB 52 requires a lead agency to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project, if the tribe requests in writing to the lead agency, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation, prior to determining whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project.

No Native American tribes contacted the City of Mountain View under AB52, and thus AB52 consultation was not required as part of the project.

3.18.3 Discussion

Would the project:

a) Cause a substantial adverse change in the significance of a tribal cultural resources, defined in Public Resources Code section 21074 as either a site, feature, place cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the

lead agency shall consider the significance of the resource to a California Native American Tribe?

Less Than Significant with Mitigation. Under CEQA, a significant resource is one that is listed in a California or local historic register or is eligible to be listed. As such, lead agencies have a responsibility to evaluate such resources against the California Register criteria prior to making a finding as to a proposed project's impacts to historical resources (PRC § 21084.1, 20174, 14 CCR § 15064.5(3).

It is possible for a lead agency to determine that an artifact, site, or feature is considered significant to a local tribe, without necessarily being eligible for the CRHR. A determination of such by a lead agency would make an artifact a significant resource under CEQA.

As discussed in Section 3.5, Cultural Resources, no recorded Tribal Cultural Resources are known to be within or near the project site, according to the aforementioned CHRIS record search via the NWIC at Sonoma State University.

The Sacred Lands File Search was negative for tribal resources in the project area. Subsequent outreach was made to the tribal contacts provided by the NAHC for information on the location and nature of the resource(s) to determine if the project would impact known resources. No specific information was provided by the tribal contacts regarding the location and nature of tribal resources in the area, therefore, there is no confirmed potential for impacting known tribal cultural resources.

The implementation of Mitigation Measures CUL-1 and CUL-2 (see Section 3.5.3) would safeguard any TCRs if they are found to be present.

3.19 UTILITIES AND SERVICE SYSTEMS

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

3.19.1 Discussion

Would the project:

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?

Less than Significant Impact. The project is the replacement of two structurally deficient golf cart bridges within a golf course. No relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas or telecommunication facilities is required as part of the bridges' replacement. An existing recycled water utility conduit mounted on the exterior of Bridge #27 would remain in place and mounted to the new bridge once installed. Therefore, the project would have a less than significant impact on utilities and service systems.

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

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

No Impact. (Responses b - c). No additional water supply is being sought as part of the project. The project is replacing two structurally deficient golf cart bridges within a golf course, which is not a new land use requiring water supplies.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less than Significant Impact. Some construction waste would be generated by the project over the short-term. Construction waste is expected to be minimal and would not exceed the capacity of the landfill that serves the area. The impact is considered less than significant.

e) Comply with Federal, State, and local management and reduction statutes and regulations related to solid waste?

No Impact. The project would not conflict with any federal, state or local statutes and regulations related to solid waste.

3.20 WILDFIRE

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

3.20.1 Environmental Setting

The project site is located in the City of Mountain View in a Local Responsibility Area. The project site is in a fully urbanized area surrounded by residential uses. The project site is not located in an area designated as a very high fire hazard severity zone (CAL FIRE 2022). The nearest area with a very high fire hazard designation is located in Portola Valley, approximately 8.5 miles southwest of the project site.

3.20.2 Discussion

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

d) Expose people or structures to significant risks, including downslope or downstream. flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact (Responses a - d). As stated, the project site is not located in a Very High Fire Hazard Severity zone. The nearest such zone is located approximately six miles southwest of the project site in the City of Los Altos. Therefore, the project would not substantially impair an adopted emergency response or evacuation plan. Additionally, the project does not propose the installation of infrastructure that may exacerbate fire risk. Further, the project would not expose occupants to pollutant concentrations from wildfires or expose people or structures to post wildfire dangers such as landslides or floods. There would be no impact.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means the incremental effects of a project are considerable when viewed in connection with the efforts of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

3.21.1 Discussion

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant with Mitigation Incorporated. As discussed in the previous sections of this Initial Study, the proposed project would not degrade the quality of the environment with the implementation of the identified mitigation measures and standard specifications. As discussed in Section 3.4 Biological Resources, with implementation of the identified mitigation measures (MM BIO-1a through 1c, MM BIO-2, MM BIO-3, MM BIO-4, and MM BIO-5), the project would not significantly impact sensitive species or habitats. As discussed in Section 3.5 Cultural Resources, Section 3.18 Tribal Cultural Resources, and Section 3.7 Geology and Soils, with implementation of the identified mitigation measures (MM CUL-1 and MM CUL-2 , MM GEO-1), the project would result in a less than significant impact on archaeological and paleontological resources.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means the incremental effects of a project are considerable when viewed in connection with the efforts of past

projects, the effects of other current projects, and the effects of probable future projects)?

Less Than Significant. Under Section 15065(a)(3) of the CEQA Guidelines, a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has potential environmental effects "that are individually limited, but cumulatively considerable." As defined in Section 15065(a)(3) of the CEQA Guidelines, 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." Using this definition, a project that has no impact in a given impact category cannot have a cumulatively considerable contribution because its contribution is zero.

The project evaluated in this Initial Study is limited to the replacement of two existing golf cart bridges on a golf course. Due to the nature of this proposed project, many types of operational impacts that are frequently associated with development projects (e.g., housing, offices, commercial uses, etc.) would not occur. For example, as described in Section 3 of this Initial Study, operation of the proposed replacement bridges would have no adverse impacts on agriculture and forestry resources, land use, mineral resources, population and housing, and wildfire.

There are no other projects proposed or that would be under construction in the same general area as the proposed project. Therefore, short-term, construction related impacts of the project (e.g., dust, potential soil contamination, noise and vibration, sensitive species and habitat disturbance, and water quality) would not combine with the impacts of other projects and would not be cumulatively considerable. As described in Section 3.13 Noise, the noise sources that could occur during the replacement and installation of the two new bridges would not generate a permanent increase in ambient noise levels in the vicinity of the project once installed. Furthermore, mitigation measures and standard specifications are included in the project to reduce construction-related impacts to a less than significant level.

As described in Section 3.4 Biological Resources, the project could affect sensitive biological resources in both the short- and long-term. These impacts, however, would not result in a cumulatively significant loss of such resources, because there are no other proposed projects or projects that would be under construction in the same general area as the proposed project. In addition, the project would implement a number of measures to reduce impacts on both common and special-status species, as described in Section 3.4. Therefore, the project would not contribute to cumulative impacts on biological resources.

There are no planned or proposed developments in the project area that could contribute to cumulative aesthetic, air quality, hydrology and water quality, public services, recreation, or utilities and service systems impacts. The project's archaeological, biological resources, and geology and soils impacts are specific to the project alignment and would not contribute to cumulative impacts elsewhere.

The project's impacts to GHG emissions are discussed in Section 3.8, and it was concluded that the project would have a less than significant impact on GHG emissions.

Based on the discussion above, the project would not result in cumulatively considerable impacts.

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

Less Than Significant with Mitigation Incorporated. The project could have potentially significant impacts on biological resources, cultural and tribal cultural resources and geologic resources. However, mitigation measures have been identified and included in the project (MM BIO-1a though 1c, MM BIO-2, MM BIO-3, MM BIO-4, MM BIO-5, MM CUL-1, and MM CUL-2 and MM GEO-1) to reduce these impacts to less-than-significant levels. The project would have a less than significant impact or no impact on all other resource areas. The project also includes the City's standard specifications to address potential dust, erosion and water quality and safety during construction to further reduce adverse effects on human beings.

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Chapter 4. References

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Appendix A: Shoreline Golf Links Bridge Replacement Detailed Emissions Report

Shoreline Golf Links Bridge Replacement Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Shoreline Golf Links Bridge Replacement
Construction Start Date	3/1/2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	28.2
Location	37.43034529957799, -122.0833590893834
County	Santa Clara
City	Mountain View
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1700
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.16

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Bridge/Overpass Construction	0.04	Mile	0.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.37	1.14	10.7	13.3	0.02	0.43	0.17	0.60	0.39	0.04	0.44	—	2,650	2,650	0.11	0.04	0.94	2,666
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.37	1.14	10.7	13.2	0.02	0.43	0.17	0.60	0.39	0.04	0.44	—	2,639	2,639	0.11	0.04	0.02	2,654
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.40	0.33	3.12	3.83	0.01	0.12	0.05	0.17	0.11	0.01	0.13	—	767	767	0.03	0.01	0.12	771
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.07	0.06	0.57	0.70	< 0.005	0.02	0.01	0.03	0.02	< 0.005	0.02	—	127	127	0.01	< 0.005	0.02	128

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2024	1.37	1.14	10.7	13.3	0.02	0.43	0.17	0.60	0.39	0.04	0.44	—	2,650	2,650	0.11	0.04	0.94	2,666
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.37	1.14	10.7	13.2	0.02	0.43	0.17	0.60	0.39	0.04	0.44	—	2,639	2,639	0.11	0.04	0.02	2,654
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.40	0.33	3.12	3.83	0.01	0.12	0.05	0.17	0.11	0.01	0.13	—	767	767	0.03	0.01	0.12	771
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.07	0.06	0.57	0.70	< 0.005	0.02	0.01	0.03	0.02	< 0.005	0.02	—	127	127	0.01	< 0.005	0.02	128

3. Construction Emissions Details

3.1. Linear, Grubbing & Land Clearing (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.29	1.08	10.5	12.5	0.02	0.43	—	0.43	0.39	—	0.39	—	2,387	2,387	0.10	0.02	—	2,395
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.29	1.08	10.5	12.5	0.02	0.43	—	0.43	0.39	—	0.39	—	2,387	2,387	0.10	0.02	—	2,395
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	0.31	3.06	3.62	0.01	0.12	—	0.12	0.11	—	0.11	—	693	693	0.03	0.01	—	696
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.56	0.66	< 0.005	0.02	—	0.02	0.02	—	0.02	—	115	115	< 0.005	< 0.005	—	115
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.77	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	153	153	< 0.005	0.01	0.65	—
Vendor	0.01	< 0.005	0.15	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	110	110	0.01	0.02	0.29	—
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.69	0.69	< 0.005	< 0.005	< 0.005	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.06	0.66	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	142	142	< 0.005	0.01	0.02	—
Vendor	0.01	< 0.005	0.15	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	110	110	0.01	0.02	0.01	—
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.69	0.69	< 0.005	< 0.005	< 0.005	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.19	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	41.6	41.6	< 0.005	< 0.005	0.08	—
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.9	31.9	< 0.005	< 0.005	0.04	—
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.20	0.20	< 0.005	< 0.005	< 0.005	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.89	6.89	< 0.005	< 0.005	0.01	—
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.27	5.27	< 0.005	< 0.005	0.01	—
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.03	0.03	< 0.005	< 0.005	< 0.005	—

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	3/1/2024	7/26/2024	5.00	106	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grubbing & Land Clearing	Bore/Drill Rigs	Diesel	Average	1.00	8.00	83.0	0.50
Linear, Grubbing & Land Clearing	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Grubbing & Land Clearing	Cranes	Diesel	Average	1.00	8.00	367	0.29
Linear, Grubbing & Land Clearing	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Linear, Grubbing & Land Clearing	Forklifts	Diesel	Average	1.00	7.00	82.0	0.20
Linear, Grubbing & Land Clearing	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Linear, Grubbing & Land Clearing	—	—	—	—

Linear, Grubbing & Land Clearing	Worker	17.5	11.7	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	4.00	8.40	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.01	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Ton of Debris)	Material Exported (Ton of Debris)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Linear, Grubbing & Land Clearing	0.00	10.0	0.00	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt

Bridge/Overpass Construction	0.07	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	12.7	annual days of extreme heat
Extreme Precipitation	4.40	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	8.55	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	1	0	0	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	1	1	1	2
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	11.6
AQ-PM	18.6
AQ-DPM	86.2

Drinking Water	62.0
Lead Risk Housing	10.4
Pesticides	0.00
Toxic Releases	25.6
Traffic	98.7
Effect Indicators	—
CleanUp Sites	98.0
Groundwater	98.9
Haz Waste Facilities/Generators	86.8
Impaired Water Bodies	94.6
Solid Waste	66.7
Sensitive Population	—
Asthma	9.14
Cardio-vascular	19.4
Low Birth Weights	—
Socioeconomic Factor Indicators	—
Education	42.7
Housing	68.5
Linguistic	74.4
Poverty	39.2
Unemployment	65.6

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	—

Employed	—
Median HI	—
Education	—
Bachelor's or higher	—
High school enrollment	—
Preschool enrollment	—
Transportation	—
Auto Access	—
Active commuting	—
Social	—
2-parent households	—
Voting	—
Neighborhood	—
Alcohol availability	—
Park access	—
Retail density	—
Supermarket access	—
Tree canopy	—
Housing	—
Homeownership	—
Housing habitability	—
Low-inc homeowner severe housing cost burden	—
Low-inc renter severe housing cost burden	—
Uncrowded housing	—
Health Outcomes	—
Insured adults	—
Arthritis	7.6

Asthma ER Admissions	92.1
High Blood Pressure	12.4
Cancer (excluding skin)	13.2
Asthma	40.2
Coronary Heart Disease	9.8
Chronic Obstructive Pulmonary Disease	19.2
Diagnosed Diabetes	30.7
Life Expectancy at Birth	0.0
Cognitively Disabled	54.2
Physically Disabled	60.6
Heart Attack ER Admissions	74.4
Mental Health Not Good	51.7
Chronic Kidney Disease	10.6
Obesity	49.6
Pedestrian Injuries	0.0
Physical Health Not Good	39.9
Stroke	19.7
Health Risk Behaviors	—
Binge Drinking	82.5
Current Smoker	57.8
No Leisure Time for Physical Activity	49.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	32.8
Children	79.8
Elderly	36.8
English Speaking	0.0

Foreign-born	0.0
Outdoor Workers	29.8
Climate Change Adaptive Capacity	—
Impervious Surface Cover	3.1
Traffic Density	0.0
Traffic Access	23.0
Other Indices	—
Hardship	0.0
Other Decision Support	—
2016 Voting	0.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	50.0
Healthy Places Index Score for Project Location (b)	—
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Updated construction phases and schedule based on project data request response received 6/28/23.
Construction: Off-Road Equipment	Updated construction equipment type and number based on data request response received 6/28/23.
Construction: Trips and VMT	Updated vendor trips based on project construction schedule.
Construction: Paving	Project assumed to have no paving-related activities based on data request response received on 6/28/23.

Appendix B: Pond 4 Shoreline Golf Course Bird Nesting Survey for Bridge Projectd 4 Shore

Pond 4 Shoreline Golf Course Bird Nesting Survey for Bridge Project

July 2023

Two bird nesting surveys were conducted at Pond 4 at the front 9 section of the golf course to determine bird activity in preparation for the bridge project.

NOTE: this time of the year (July) is not the prime time for bird nesting activity, although we are still within the timeline for the breeding season, however, significant breeding activity was observed during both surveys.

One survey was conducted July 18th and a second survey was conducted July 21st, both surveys were conducted early in the morning (start time was 7am July 18th and 6am July 21st) when bird species are more active. The weather both days was clear, with temperatures around 62F and 59F respectively both days, at least at the start of the survey period, which lasted approximately two hours for each survey.

During the survey on July 18th, a total of 26 species were observed with 95 individuals, while on July 21st, a total of 23 species and 202 individuals were observed (Table 1).

Breeding activity was observed for 9 species: American coot, black phoebe, common gallinule, great-tailed grackle, green heron, hooded oriole, marsh wren, pied-billed grebe, and song sparrow. Breeding activity varied from a nest with eggs to active feeding of young to observations of recently fledged young.

One State Species of Special Concern was observed: the San Francisco Common Yellowthroat (SFCY), this species has been observed breeding at Pond 4 and adjacent areas, (the high-level ditch to the east of the pond and along Permanente Creek) for several years now. This species is a wetland obligate species and inhabits the typical wetland flora (cattails and tules) of the pond year-round. Figure 1 shows the locations of where the SFCY were observed during the survey, while Figure 2 shows the historical locations of nesting SFCY at Shoreline including Pond 4.

Table 1: bird species and breeding activity observed during surveys on July 18th & 21st, 2023 at Pond 4 on the Front 9 of the Golf Course

	Date & Quantity		
Species	18-Jul-23	21-Jul-23	Breeding Activity
American coot	6	8	Nest with eggs
Anna's hummingbird	1	3	

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Barn swallow	3	2	
Bewicks wren	1	1	
Black -headed grosbeak		1	
Black phoebe	7	2	Recently fledged young
Black-crowned night-heron	6	7	
Bullocks oriole		1	
Bushtit	1		
California towhee		2	
Canada goose	8		
Cinnamon teal	4	5	
Cliff swallow	6	1	
Common gallinule	4		Recently fledged young
Great blue heron	1		
Great egret		1	
Great-tailed grackle	12	2	Feeding young
Green heron	2	3	Recently fledged young
Hooded oriole		2	Carrying food
House finch	1	3	
Mallard	15	76	
Marsh wren	1	3	Territorial display
Mourning dove	1		
Nuttall's woodpecker	1		
Pied-billed grebe	2	1	Recently fledged young
Red-tailed hawk	1		
red-winged blackbird	1	65	
San Francisco common yellowthroat	2	5	
Snowy egret	1		
Song sparrow	5	6	Recently fledged young
Violet-green swallow	2	2	

Figure 1: Map showing location of San Francisco Common Yellowthroats observed during the surveys on July 18th and 21st 2023, at Pond 4 of the Shoreline Golf Course

Figure 2: Map showing location of San Francisco Common Yellowthroat nesting locations at Shoreline 2017-2022

Additional Species of Concern that have been observed within and adjacent to the Golf Course Pond historically.

In addition to the bird nesting survey, a western pond turtle (a state species of special concern) was observed within Pond 4 of the golf course on April 21, 2021. No pond turtles were observed during the surveys during July, most likely as the temperature was not conducive this early in the morning, as turtles are reptiles and prefer warmer temperatures.

Burrowing owls (a state species of special concern) have nested historically within and adjacent to the golf course. Both resident and migratory burrowing owls inhabit Shoreline. During the 2023 breeding season, one pair of burrowing owls successfully raised chicks on the Back 5 section of the golf course on Fairway 14, while during 2022, one pair of burrowing owls successfully raised chicks on Fairway 9, which is located adjacent to Pond 4. Burrowing owls can forage up to 2 miles from their burrow and during 2023 we have had 41 burrowing owls residing at Shoreline.

Conclusion

Bird nesting activity was observed for several species (9 species in total) while a total of 31 bird species were observed during both surveys. The Pond 4 area provides prime nesting and foraging habitat for a significant number of birds species and other wildlife (aquatic species including turtles). The adjacent golf fairways and tree species provide nesting and foraging habitat for a diversity of other species, including burrowing owls, red-tailed hawks (nesting of this species has occurred on the golf course previously on Fairway 7), white-tailed kites and golden eagles.

It is highly recommended that the bridge construction avoids the bird nesting season based on historical use of this area by nesting birds including San Francisco Common Yellowthroats.

Appendix 1: Photos of bird activity July 2023 at Pond 4 Shoreline Golf Course

Photo 1: American coot nest with 4 eggs

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Photo 2: American coot and common gallinule in territorial dispute of nesting areas

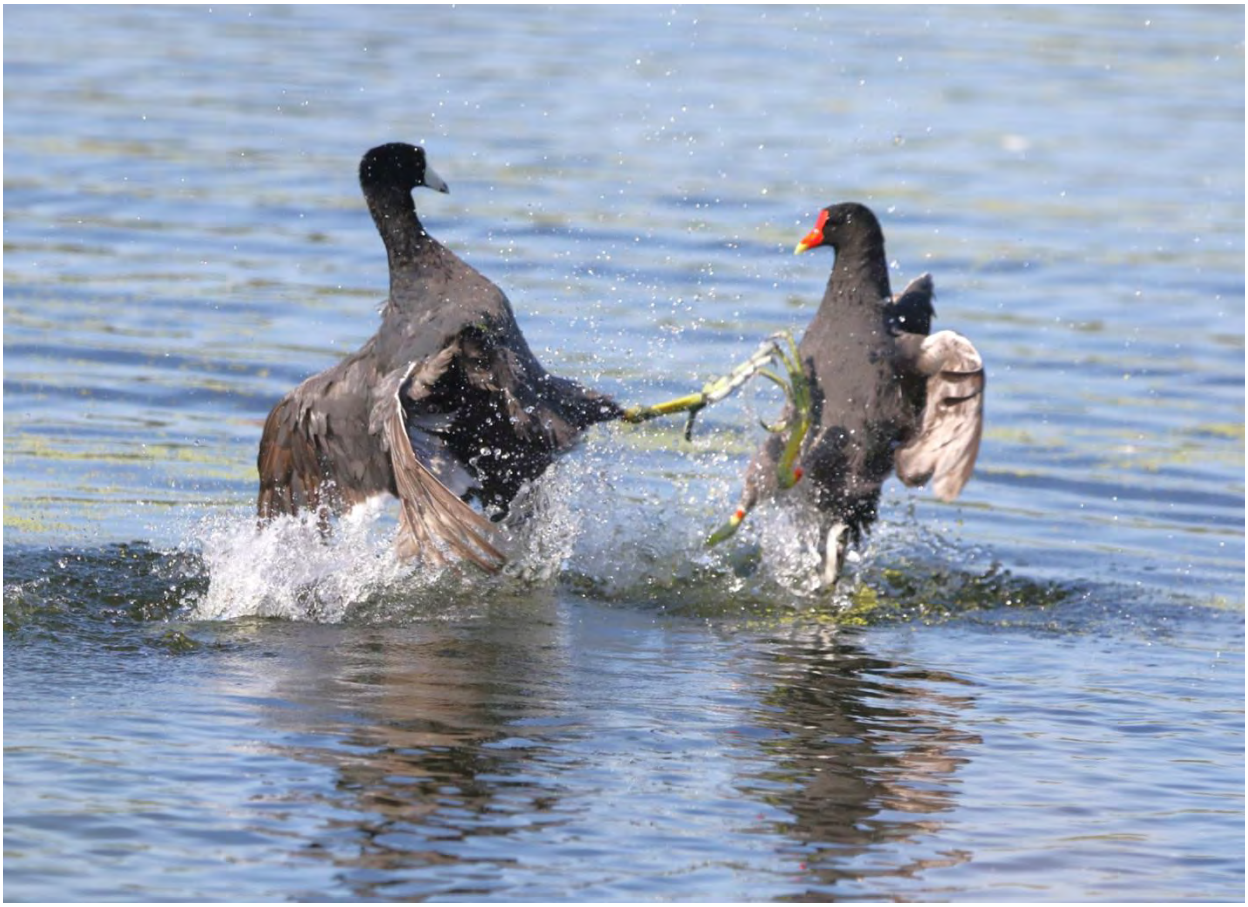

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Photo 3: great-tailed grackle adult feeding young

Photo 4: green heron fledgling

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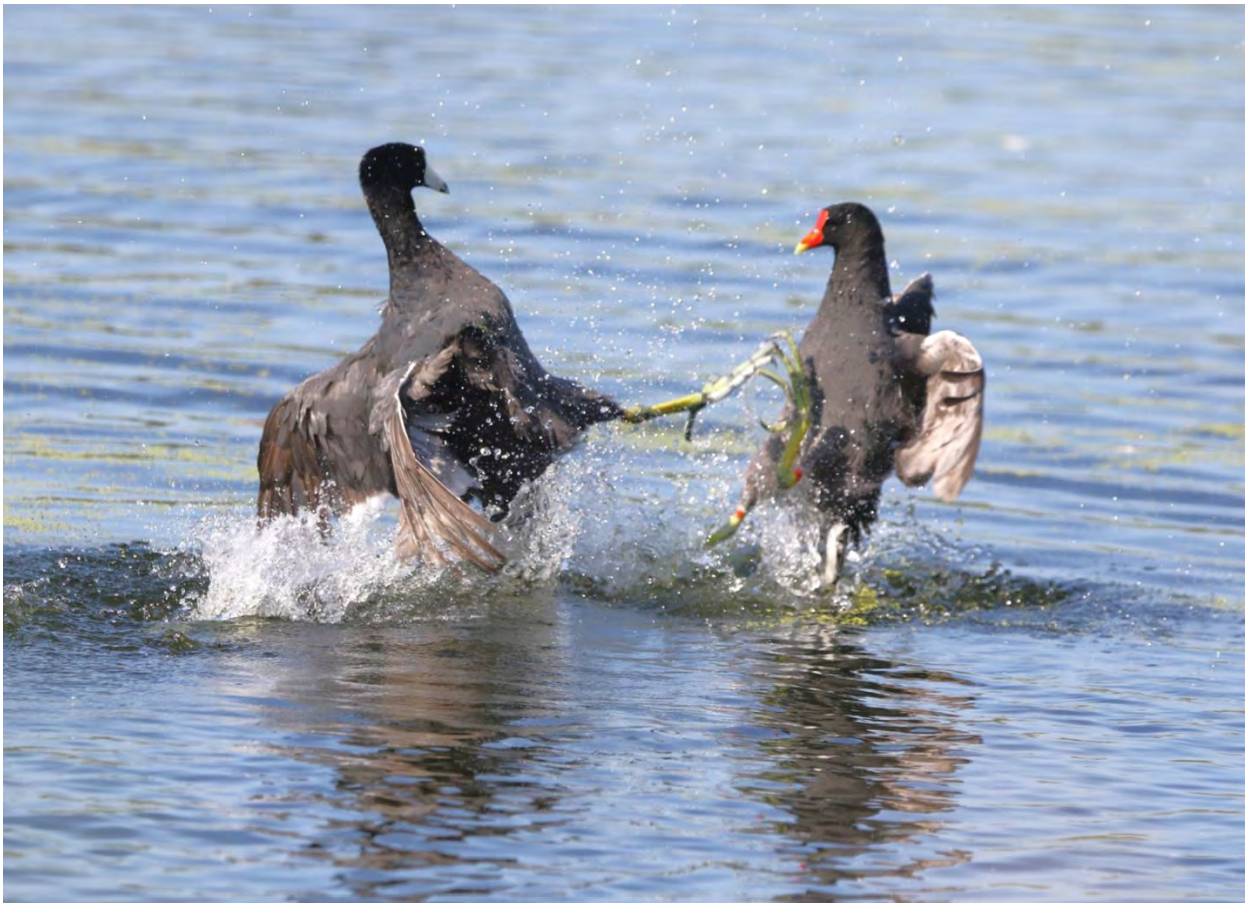

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Photo 3: great-tailed grackle adult feeding young

Photo 4: green heron fledgling

Appendix C: Biological Species Tables

Appendix A: Special-Status Animal Species Evaluated for Potential to Occur on the Project Site**.**

Species	Status	Geographic Distribution[1]	Habitat Requirements[2]	Potential for Occurrence[3]
INVERTEBRATES				
Crotch bumblebee *Bombus crotchii*	SCE	Coastal California east to the Sierra-Cascade crest and south into Mexico; mainly in the Central Valley.	Food plant genera include *Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia,* and *Eriogonum.*	**Not Expected.** There is one CNDDB record of crotch bumblebee within 5 miles of the project site at Stanford University from 1909. Food plants are not present in or near the project site, which is open water and mowed grass.
Western bumblebee *Bombus occidentalis*	SCE	Once common and widespread, this species has declined precipitously from central California to southern British Columbia. They are now largely confined to high-elevation sites and areas east of the Cascade Crest**.**	Western bumble bees use a wide variety of natural, agricultural, urban, and rural habitat types. Require suitable nesting sites, overwintering sites for the queens, and nectar and pollen resources throughout the spring, summer, and fall.	**Not Expected.** There are two CNDDB records of western bumblebee within 5 miles of the project site at Stanford University and the Palo Alto Baylands, from 1960 and 1974. Food plants are not present in or near the project site, which is open water and mowed grass.
Monarch- California overwintering population *Danaus plexippus plexippus* pop. 1	FC	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico.	Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	**Not Expected.** There are no wind-protected tree groves in the project area and the project site is a golf course with limited nectar sources.
Bay checkerspot butterfly *Euphydryas editha bayensis*	FT	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay.	*Plantago erecta* is the primary host plant, *Castilleja densiflorus* and *C. purpurscens* are secondary host plants.	**Not Expected.** Bay checkerspot butterfly is included on the USFWAS IPAC species list for the project site. However, there are no serpentine outcrops or host plants at or near the site.
Vernal pool tadpole shrimp *Lepidurus packardi*	FE	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid waters.	Inhabited pools are often found in grass-bottomed swales of unplowed grasslands; some pools are mud-bottomed and highly turbid.	**Not Expected.** Vernal pool tadpole shrimp is included on the USFWAS IPAC species list for the project site. However, there are no vernal pools or swales at or near the site.

Appendix B: Special-Status Animal Species with Potential to Occur on the Project Site**.**

FISH				
Green sturgeon Southern DPS *Acipenser medirostris*	FT	Green sturgeon range from the Bering Sea, Alaska, to Ensenada, Mexico. The Southern DPS inhabits coastal watersheds south of the Eel River. The only known spawning population for the Southern DPS is in the Sacramento River.	Green sturgeon spend a large portion of their lives in coastal marine waters as adults and subadults. Spawning most likely occurs in fast, deep water (> 10 feet or 3 meters deep) over substrates ranging from clean sand to bedrock, with preferences for cobble.	**Not Expected.** Green sturgeon Southern DPS inhabits the San Francisco Bay Estuary and its tributaries. The tidal portion of Permanente Creek is critical habitat for this species, but the species does not spawn there. However, green sturgeon do not occur in ponds such as the one at the project site.
Steelhead - central California coast DPS *Oncorhynchus mykiss irideus*	FT	This DPS includes all populations of steelhead from the Russian River south to Aptos Creek. Steelhead in drainages of San Francisco, San Pablo, and Suisun Bays are also part of this DPS.	Steelhead are the anadromous form of rainbow trout. Adult steelhead migrate from the ocean into streams in the late fall, winter, or early spring seeking out deep pools within fast moving water to rest prior to spawning. Steelhead spawn in shallow-water gravel beds.	**Not Expected.** Steelhead occurred historically in Permanente Creek, but are no longer present according to Leidy et al. 2004; although resident rainbow trout are present in the creek according to a 2008 study by the Santa Clara Valley Water District. Since most of the creek's flow is diverted to the Permanente Creek Diversion which culminates in a 10-foot (3.0 m.) drop, steelhead can no longer ascend the creek.
Longfin smelt *Spirinchus thaleichthys*	FC, ST, CSSC	Found in California's bays, estuaries, and nearshore coastal environments from the San Francisco Bay north to Lake Earl near the Oregon border. The San Francisco Bay estuary and the Sacramento-San Joaquin Delta support the largest longfin smelt population in California.	Found in aquatic and estuary habitats. This species is euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 parts per thousand but can be found in completely freshwater to almost pure seawater.	**Not Expected.** Longfin smelt is known to occur in the San Francisco Bay. However, this species is restricted to the open waters of estuaries; it does not occur in ponds or creeks.

Appendix B: Special-Status Animal Species with Potential to Occur on the Project Site**.**

AMPHIBIANS				
California tiger salamander *Ambystoma californiense*	FT, ST	Found in the Coast Range and Sierra Nevada foothills of California. In the Coast Range, it occurs from southern San Mateo County south to central San Luis Obispo County, and also in the vicinity of northwestern Santa Barbara County. In the Sierra Nevada foothills, it occurs from northern Yolo County to northwestern Kern County and northern Tulare County.	Found in cismontane woodland, meadows and seeps, riparian woodland, valley and foothill grassland, vernal pools, and wetland habitats. Need California ground squirrel or gopher burrows for underground refuges, and vernal pools or other seasonal water sources that do not support predatory fish or frog populations for breeding.	**Not Expected.** There are four CNDDB records of California tiger salamander within 5 miles of the project site, although two are extirpated. The closest to the project site is at Stanford University from 2018. However, there is no suitable habitat for this species at or near the site.
Santa Cruz black salamander *Aneides niger*	CSSC	Found in mixed deciduous and coniferous woodlands and coastal grasslands in San Mateo, Santa Cruz, and Santa Clara counties.	Adults found under rocks, talus, and damp woody debris.	**Not Expected.** There is no suitable habitat or nearby occurrences of Santa Cruz black salamander in the project area.
California giant salamander *Dicamptodon ensatus*	CSSC	Known from wet coastal forests near streams and seeps from Mendocino County south to Monterey County, and east to Napa County.	Aquatic larvae found in cold, clear streams, occasionally in lakes and ponds. Adults known from wet forests under rocks and logs near streams and lakes.	**Not Expected.** There is no suitable habitat or nearby occurrences of California giant salamander in the project area.
foothill yellow-legged frog-Central Coast DPS *Rana boylii* pop. 4	FPT, SE	San Francisco Peninsula and Diablo Range south of San Francisco Bay Estuary, and south through the Santa Cruz and Gabilan Mountains east of the Salinas River in the southern inner Coast Ranges.	Partly shaded shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying and at least 15 weeks to attain metamorphosis.	**Not Expected.** There is no suitable habitat or nearby occurrences of California giant salamander in the project area. This species is possibly extirpated from the project region.
California red-legged frog *Rana draytonii*	FT, CSSC	Found from Riverside County to Mendocino County along the Coast Range, from Calaveras County to Butte County in the Sierra Nevada, and in Baja California.	Found in aquatic, artificial flowing waters, artificial standing waters, freshwater marsh, marsh and swamp, riparian forest, riparian scrub, riparian woodland, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, south coast flowing waters, south coast standing waters, and wetland habitats. Likely within lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	**Not Expected.** There are two CNDDB records of California red-legged frogs within 5 miles of the project site, although one is extirpated. The closest to the project site is in Matadero Creek from 2016. This species is also known from the upper reaches of Permanente Creek but there is extensive urban development between the occurrence location and the project site. Red-legged frogs are not known from the artificial pond at the project site.
red-bellied newt *Taricha rivularis*	CSSC	Coastal drainages from Humboldt County south to Sonoma County, inland to Lake County. Isolated population of uncertain origin in Santa Clara County.	Lives in terrestrial habitats, juveniles generally underground, adults active at surface in moist environments. Will migrate over 1 km to breed, typically in streams with moderate flow and clean, rocky substrate.	**Not Expected.** There is no suitable habitat or nearby occurrences of red-bellied newt in the project area.

Appendix B: Special-Status Animal Species with Potential to Occur on the Project Site**.**

REPTILES				
Northern California legless lizard *Anniella pulchra*	CSSC	Found in sandy or loose loamy soils under sparse vegetation.	Soil moisture is essential. They prefer soils with a high moisture content.	**Not Expected.** There is no suitable habitat or nearby occurrences of Northern California legless lizard in the project area.
Western pond turtle *Actinemys marmorata*	CSSC	Found from Baja California, Mexico north through Klickitat County, Washington. In California, found west of the Sierra-Cascade crest. Absent from desert regions, except the Mojave Desert along the Mojave River and its tributaries.	Requires permanent or nearly permanent bodies of water including ponds, marshes, rivers, streams, and irrigation ditches below 6,000 feet in elevation. Requires basking sites, such as submerged rocks, logs, open mud banks, or floating vegetation mats. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 kilometers from water for egg-laying.	**Low Potential.** There are three CNDDB records of western pond turtle within 5 miles of the project site. The closest to the project site is in the channels along the Bay Trail near the Moffet Field Golf Course, from 2012. However, there are significant movement barriers between the known occurrence and the project site, and basking and nesting sites are lacking at the project site.
Alameda whipsnake *Masticophis lateralis euryxanthus*	FT, ST	Typically found in chaparral and scrub habitats but will also use adjacent grassland, oak savanna and woodland habitats.	Mostly south-facing slopes and ravines, with rock outcrops, deep crevices or abundant rodent burrows, where shrubs form a vegetative mosaic with oak trees and grasses.	**Not Expected.** There is no suitable habitat or nearby occurrences of Alameda whipsnake in the project area.
San Francisco garter snake *Thamnophis sirtalis tetralaenia*	FE, SE, CFP	Found primarily within San Francisco county and San Mateo county, with a small portion of the range extending into northern Santa Cruz county (Big Basin Redwoods State Park).	Found in artificial standing waters, marsh and swamp, Sacramento/San Joaquin standing waters, and wetland habitats. Likely found in the vicinity of freshwater marshes, ponds and slow-moving streams in San Mateo County and extreme northern Santa Cruz County. Avoids brackish marsh areas because their preferred prey (CRLF) cannot survive in saline water. Prefers dense cover and water depths of at least one foot. Upland areas near water are also very important.	**Not Expected.** There are seven CNDDB records of San Francisco garter snake within 5 miles of the project site, although the exact location is suppressed. The closest to the project site is in Matadero Creek from 2016. There is some freshwater marsh habitat along the artificial pond, but the area has high use as a golf course and is regularly disturbed.
BIRDS				
Tricolored blackbird *Agelaius tricolor*	CSSC (nesting colony)	Permanent resident in Central Valley from Butte to Kern Counties; breeds at scattered coastal locations from Marin to San Diego Counties and at scattered locations in Lake, Sonoma, and Solano Counties; rare nester in Siskiyou, Modoc, and Lassen Counties.	Nests in dense colonies in emergent marsh vegetation, such as tules and cattails, or upland sites with blackberries, nettles, thistles, and grain fields; habitat must be large enough to support 50 pairs; probably requires water at or near the nesting colony.	**Low Potential.** There are no CNDDB records of tricolor blackbird within 5 miles of the project site, but it has been observed at the Mountain View Shoreline according to eBird. There is some freshwater marsh vegetation at the project site, but site has frequent disturbance and high human visitation.

Appendix B: Special-Status Animal Species with Potential to Occur on the Project Site**.**

Golden eagle *Auila chrysaetos*	CFP	Inhabits foothills and mountains throughout California.	Nests on cliffs and escarpments or in tall trees overlooking open country; forages in annual grasslands, chaparral, and oak woodlands with plentiful medium and large-sized mammals.	**Low Potential.** There are no CNDDB records golden eagle within 5 miles of the project site, but it has been observed at the Mountain View Shoreline according to eBird. There is no suitable breeding habitat for this species at or near the site.
Short-eared owl *Asio flammeus*	CSSC	Found in swamp lands, both fresh and salt; lowland meadows; irrigated alfalfa fields.	Tule patches/tall grass needed for nesting/daytime seclusion. Nests on dry ground in depression concealed in vegetation.	**Not Expected.** There is no suitable habitat or nearby occurrences of short-eared owl in or near the project site.
Long-eared owl *Asio otus*	CSSC	Riparian bottomlands grown to tall willows and cottonwoods; also, belts of live oak paralleling stream courses.	Require adjacent open land, productive of mice and the presence of old nests of crows, hawks, or magpies for breeding.	**Not Expected.** There is no suitable habitat or nearby occurrences of long-eared owl in or near the project site.
Burrowing owl *Athene cunicularia*	CSSC	Found year-round throughout much of California, except the coastal counties north of Marin and mountainous areas. Breeding has not been observed in Sonoma County since 1987 and breeding colonies are considered extirpated from this county.	Found in coastal prairie, coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran Desert scrub, and valley and foothill grassland habitats. Likely in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	**Present.** There are 13 CNDDB records of burrowing owl within 5 miles of the project site; including at the Mountain View Shoreline. This species is known to occur near the project site.
Marbled murrelet *Brachyramphus marmoratus*	FT, SE	Feeds near-shore; nests inland along coast from Eureka to Oregon border and from Half Moon Bay to Santa Cruz.	Nests in old-growth redwood-dominated forests, up to six miles inland, often in Douglas-fir.	**Not Expected.** There is no suitable habitat or nearby occurrences of marbled murrelet in or near the project site.
Swainson's hawk *Buteo swainsoni*	ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees.	Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	**Not Expected.** There is no suitable habitat or nearby occurrences of Swainson's hawk in or near the project site.
Western snowy plover *Charadrius nivosus nivosus*	FT	Pacific population of western snowy plover occurs along the entire coastline.	Found in standing waters, sand shore, and wetland habitats. Likely within open sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	**Low Potential.** There are three CNDDB records of western snowy plover within 5 miles of the project site; the closest is at the Palo Alto Golf Course from 2002. It was observed at the Mountain View Shoreline in February 2022 according to eBird. However, there is no suitable breeding or foraging habitat for this species at or near the site.

Appendix B: Special-Status Animal Species with Potential to Occur on the Project Site**.**

Northern harrier *Circus hudsonius*	CSSC	Throughout lowland California; has been recorded in fall at high elevations.	Grasslands, meadows, marshes, and seasonal and agricultural wetlands.	**Low Potential.** There are three CNDDB records of Northern harrier within 5 miles of the project site; the closest is at the Palo Alto Golf Course from 2002. It was observed at the Mountain View Shoreline most recently in November 2021 according to eBird. There is suitable breeding and foraging habitat for this species in coastal marsh north of the site; but there is no suitable habitat within or adjacent to the project site.
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	FT, SE	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems.	Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	**Not Expected.** There is no suitable habitat or nearby occurrences of western yellow-billed cuckoo in or near the project site. This species has been extirpated from the project region.
Yellow rail *Coturnicops noveboracensis*	CSSC	Summer resident in eastern Sierra Nevada in Mono County.	Inhabits freshwater marsh and meadows and seeps.	**Not Expected.** There are three CNDDB records of yellow rail within 5 miles of the project site, the most recent from the Palo Alto Baylands in 1988. However, there is no suitable habitat at or near the site.
White-tailed kite *Elanus leucurus*	CFP	Found year-round in nearly all areas of California up to the western Sierra Nevada foothills and southeast deserts. Common in the Central Valley of California and along the entire length of the coast, possibly breeding in more arid regions east of the Sierra Nevada and Transverse Range (Inyo and eastern Kern Counties). Documented breeding in Imperial County, western Riverside County, and eastern San Diego County. In the Sacramento Valley, populations have predominantly increased in irrigated agricultural areas where the California vole (*Microtus californicus*) often occurs.	Found in cismontane woodland, marsh and swamp, riparian woodland, valley and foothill grassland, and wetland habitats. Likely in rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	**Present.** This species is known to occur at the Mountain View Shoreline and nests near the project site according to City of Mountain View records.

Appendix B: Special-Status Animal Species with Potential to Occur on the Project Site**.**

Saltmarsh common yellowthroat *Geothlypis trichas sinuosa*	CSSC	Found year-round in the vicinity of San Francisco Bay, from Tomales Bay in Marin County and Napa Sloughs in southern Sonoma County on the north, east to Carquinez Straight, and south to vicinity of San Jose in Santa Clara County. Historic locations of confirmed breeding include Lake Merced in San Francisco County, and Coyote Creek, Alviso, and Milpitas in Santa Clara County	Found in fresh and salt water marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	**Present.** Saltmarsh common yellowthroat is known from the Mountain View Shoreline from recent CNDDB records and eBird observations. This species breeds in the project area according to the wildlife biologist at the Mountain View Shoreline.
Bald eagle *Haliaeetus leucocephalis*	SE, CFP	Year-round resident in northern California, winters throughout the rest of the state.	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests are within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	**Low Potential.** There are no CNDDB records of bald eagle within 5 miles of the project site, but it has been observed at the Mountain View Shoreline according to eBird. There is no suitable breeding habitat for this species at or near the site.
California black rail *Laterallus jamaicensis coturniculus*	ST, CFP	The majority found in the tidal salt marshes of the northern San Francisco Bay region, primarily in San Pablo and Suisun Bays. Smaller populations occur in San Francisco Bay, the Outer Coast of Marin County, freshwater marshes in the foothills of the Sierra Nevada, and in the Colorado River Area.	Found in brackish marsh, freshwater marsh, marsh and swamp, salt marsh, and wetland habitats. Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	**Low Potential.** California black rail was last observed at the Mountain View Shoreline in 2014 according to CNDDB records. There is no suitable breeding or foraging habitat for this species in or adjacent to the project site, but suitable habitat occurs nearby in the marsh habitat along Permanente Creek the Bay shore.
Alameda song sparrow *Melospiza melodia pusillula*	CSSC	Resident of salt marshes bordering south arm of San Francisco Bay.	Found in salt marsh habitats. Inhabits pickleweed (*Salicornia* sp.) marshes; nests low in gumplant (*Grindelia* sp.) bushes (high enough to escape high tides) and in pickleweed.	**High Potential.** There are seven CNDDB records of Alameda song sparrow within 5 miles of the project site, most recently near the Palo Alto Golf Course and Alviso in 2004. Song sparrows have been observed at the Mountain View Shoreline as recently as July 2023 according to eBird, but it is unknown if they are Alameda song sparrows. There is suitable habitat near the site.

Appendix B: Special-Status Animal Species with Potential to Occur on the Project Site**.**

California ridgway's rail *Rallus obsoletus obsoletus*	FE, SE, CFP	Found almost exclusively in the marshes of the San Francisco estuary in San Mateo, Santa Clara, Alameda, Contra Costa, Solano, Napa, Sonoma, and Marin counties.	Found in brackish marsh, marsh and swamp, salt marsh, and wetland habitats. Likely in salt water and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. Associated with abundant growths of pickleweed but feeds away from cover on invertebrates from mud-bottomed sloughs.	**Moderate Potential.** California ridgeway's rail occurs near project site according to a 2001 CNDDB record at Permanente Creek and recent observations on eBird. This species is occasionally observed in the part of Permanente Creek in or near the project site, but there is no breeding habitat at the site and it likely occurs in the marsh habitat along the Bay shore more often.
Bank swallow *Riparia riparia*	ST	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert.	Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	**Not Expected.** There is no suitable habitat or nearby occurrences of bank swallow in or near the project site.
Black skimmer *Rynchops niger*	CSSC	Breeds along the coast in Central California, occurs year round in coastal Southern California.	Nests on gravel bars, low islets, and sandy beaches, in unvegetated sites. Nesting colonies usually less than 200 pairs.	**Moderate Potential.** Black skimmers are known to nest at the Mountain View Shoreline Lake from a 2015 CNDDB record, and have been most recently observed in May 2023 according to eBird. This species may forage at the project site but is unlikely to nest there.
California least tern *Sternula antillarum browni*	FE, SE, CFP	Nests along the coast from San Francisco Bay south to Northern Baja California.	Found foraging in alkali playa, coastal, lake, and wetland habitats. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, landfills, or paved areas.	**Low Potential.** There are two CNDDB records of California least tern within 5 miles of the project site from 1987. This species has occasionally been observed at the Mountain View Shoreline according to eBird, most recently in July 2020. This species may forage at the project site but is unlikely to nest there.

Appendix B: Special-Status Animal Species with Potential to Occur on the Project Site**.**

MAMMALS				
Pallid bat *Antrozous pallidus*	CSSC	Common throughout low elevations of California. No found in the high Sierra from Shasta to Kern counties and the northwestern corner of the State from Del Norte and western Siskiyou counties to northern Mendocino County.	Found in chaparral, coastal scrub, desert wash, Great Basin grassland, Great Basin scrub, Mojavean Desert scrub, riparian woodland, Sonoran Desert scrub, upper montane coniferous forest, and valley and foothill grassland habitats. Prefers deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**Low Potential.** There are two CNDDB records of pallid bat within 5 miles of the project site, in Mountain View and at Stanford University from 1945 and 1951. However, the site is in a developed area with limited roosting habitats and this species is very sensitive to disturbance.
Townsend's big-eared bat *Corynorhinus townsendii*	CSSC	Found throughout California, but details of its distribution are not well known. Found in all but subalpine and alpine habitats.	Found in broadleaved upland forest, chaparral, chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, lower montane coniferous forest, meadow and seep, Mojavean Desert scrub, riparian forest, riparian woodland, Sonoran Desert scrub, Sonoran thorn woodland, upper montane coniferous forest, and valley and foothill grassland habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	**Low Potential.** There are two CNDDB records of Townsend's big-eared bat within 5 miles of the project site, most recently in Mountain View and in 2015. However, the site is in a developed area with limited roosting habitats and this species is extremely sensitive to disturbance.
San Francisco dusky-footed woodrat *Neotoma fuscipes annectens*	CSSC	This California endemic is found throughout the San Francisco Bay area in grasslands, scrub and wooded areas.	Forest habitats of moderate canopy and moderate to dense understory. May prefer chaparral and redwood habitats. Constructs nests of shredded leaves, grass and other material. May be limited by availability of nest-building materials.	**Not Expected.** There is one CNDDB record of San Francisco dusky-footed woodrat within 5 miles of the project site at Foothill College from 1985. Nest building materials are very limited at the project site and no woodrat houses were observed during the July 2023 site visit.

Appendix B: Special-Status Animal Species with Potential to Occur on the Project Site**.**

Salt-marsh harvest mouse *Reithrodontomys raviventris*	FE, SE, CFP	Occurs only in the saline emergent wetlands of the San Francisco Bay and its tributaries.	Found in marsh and swamp and wetland habitats. Pickleweed is primary habitat but may occur in other marsh vegetation types and in adjacent upland areas. Does not burrow; builds loosely organized nests. Requires higher areas for flood escape.	**Low Potential.** There are 13 CNDDB records of saltmarsh harvest mouse within 5 miles of the project site near the Bayshore; the closest one is about 1 mile south of the site at the Stevens Creek Shoreline Nature Study Area from 1991. There is no suitable pickleweed marsh habitat for this species at the project site, although suitable habitat occurs north of the site along the shoreline.
Salt-marsh wandering shrew *Sorex vagrans halicoetes*	CSSC	Found in the salt marshes of the south arm of San Francisco Bay.	Found in marsh and swamp and wetland habitats; medium high marsh 6-8 feet above sea level where abundant driftwood is scattered among pickleweed.	**Low Potential.** There are two extant CNDDB record of salt-marsh wandering shrew within 5 miles of the project site at the Mowry Slough in 1985. There is suitable pickleweed marsh habitat for this species north of the site. However, this species is restricted to a narrow band of marsh habitat not present at or adjacent to the project site.
American badger *Taxidea taxus*	CSSC	Occurs throughout California, the western United States, and Canada.	American badger is rare in western San Francisco Bay area. It occurs in grasslands and open stages of forest and scrub habitats with friable soils and good prey base of burrowing rodents. Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	**Not Expected.** There is one CNDDB record American badger within 5 miles of the project site at Stanford University from 1894. There is no suitable marsh habitat for this species at or near the project site.

STATUS KEY:
Federal
FE: Federally-listed Endangered
FT: Federally-listed Threatened

State
SE: State-listed Endangered
ST: State-listed Threatened
SCE: State-listed Candidate Endangered
CSSC: California Species of Special Concern
CFP: California Fully Protected

Appendix B: Special-Status Animal Species with Potential to Occur on the Project Site**.**

SOURCES:

1. United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPAC) Species List (September 4, 2020).
2. California Natural Diversity Database (CNDDB) Rarefind 5 search of Mountain View USGS Quad and eight surrounding quads; BIOS five mile radius search (September 4, 2020).
3. Cornell Lab of Ornithology. 2020. eBird. Accessed September 2020 at: https://ebird.org/home.
4. National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS). 2020a. Critical Habitat- Green Sturgeon (Southern DPS). Accessed September 2020 at: https://www.fisheries.noaa.gov/resource/map/critical-habitat-green-sturgeon-southern-dps.
5. Leidy, R.A., G.S. Becker, B.N. Harvey. 2005. Historical distribution and current status of steelhead/rainbow trout (*Oncorhynchus mykiss*) in streams of the San Francisco Estuary, California. Center for Ecosystem Management and Restoration, Oakland, CA.
6. Phillip Higgins, Wildlife Preservation Biologist, Shoreline at Mountain View, pers. com., September 16, 2020.

CNDDB SPECIES WITHIN 9 QUAD SEARCH THAT DON'T MEET THE DEFINITION OF SPECIAL-STATUS SPECIES:

- California linderiella, *Linderiella occidentalis*
- Obscure bumblebee, *Bombus caliginosus*
- Unsilvered fritillary, *Speyeria adiaste adiaste*
- Western ridged mussel, *Gonidea angulate*
- Mimic tryonia, *Tryonia imitator*
- Cooper's hawk, *Accipiter cooperii*
- Great blue heron, *Ardea Herodias*
- Snowy egret, *Egretta thula*
- American peregrine falcon, *Falco peregrinus anatum*
- Double-crested cormorant, *Nannopterum auritum*
- Black-crowned night heron, *Nycticorax nycticorax*
- Santa Cruz kangaroo rat, *Dipodomys venustus venustus*
- Hoary bat, *Lasiurus cinereus*
- Yuma myotis, *Myotis yumanensis*

Appendix A: Special Status Plant Species Evaluated for Potential to Occur on the Project Site

Species	Status	Geographic Distribution[1]	Habitat Requirements[2]	Life Form; Blooming Period[2]	Potential Occurrence in the Project Area[3]
Franciscan onion *Allium peninsulare-var. franciscanum*	CRPR 1B.2	Coastal mid California, from Monterey to Mendocino Counties.	Cismontane woodland, valley and foothill grasslands. Often on dry hillsides and in serpentine bunchgrass grasslands; 52-300 m.	Perennial bulbiferous herb; Blooms May to June	**Not Expected.** There is one CNDDB record of Franciscan onion within 5 miles of the project site along Page Mill Road from 1949. However, there is no suitable habitat for this species at or near the site.
Alkali milk-vetch *Astragalus tener* var. *tener*	CRPR 1B.2	Endemic to the San Francisco Bay Area and surrounding counties.	Playas, valley and foothill grassland (adobe clay) or vernal pools on alkaline soils; 1-60 m.	Annual herb, March to June	**Not Expected.** There is one CNDDB record of alkali milk-vetch within 5 miles of the project site north of the Mountain View shoreline from 1905, but it is possibly extirpated. There is no suitable habitat for this species at or near the site.
Congdon's tarplant *Centromadia parryi* ssp. *congdonii*	CRPR 1B.1	Throughout western California from San Luis Obispo to Solano County.	Valley and foothill grasslands with alkaline or clay soils; 0-230 m.	Annual herb; Blooms May to November	**Low Potential.** There are five CNDDB records of Congdon's tarplant within 5 miles of the project site, including two at the Mountain View shoreline from 2019. However, the project alignment is in a golf course and artificial pond unlikely to support this species.
Point Reyes bird's beak *Chloropyron maritimum* ssp. *palustre*	CRPR 1B.2	Extant occurrences in Humboldt, Marin, San Francisco and Sonoma Counties.	Marshes and swamps (coastal salt); 0-10 m.	Annual herb (hemiparasitic); Blooms June to October	**Not Expected.** There are two CNDDB records of Point Reye's bird's beak within 5 miles of the project site at Alviso and the Palo Alto Baylands from 1915 and 1914, but both are possibly extirpated. There is no suitable habitat for this species at or near the site.
San Francisco collinsia *Collinsia multicolor*	1B.2	Mid-coastal California from Monterey to Marin county including Santa Clara county.	Moist shady woodland, closed-cone coniferous forests and coastal scrub. Occasionally found in serpentine; 30-250 m.	Annual herb; Blooms March to May	**Not Expected.** There is one CNDDB record of San Francisco collinsia within 5 miles of the project site at Stanford University from 1903. However, there is no suitable habitat for this species at or near the site.

Appendix A: Special Status Plant Species Evaluated for Potential to Occur on the Project Site

Species	Status	Geographic Distribution[1]	Habitat Requirements[2]	Life Form; Blooming Period[2]	Potential Occurrence in the Project Area[3]
Western leatherwood *Dirca occidentalis*	CRPR 1B.2	San Francisco Bay area including Santa Clara to Marin county and east to Alameda county.	Cool, moist slopes in foothill woodland and riparian forests. Mesic environments in broadleaved upland forests, chaparral and coniferous woodlands and mixed evergreen and oak woodlands; 25-425 m.	Perennial deciduous shrub; Blooms January to April.	**Not Expected.** There is one CNDDB record of western leatherwood within 5 miles of the project site at Stanford University from 1931. However, there is no suitable habitat for this species at or near the site.
Hoover's button-celery *Eryngium aristulatum* var. *hooveri*	CRPR 1B.1	Endemic to Alameda, San Benito, Santa Clara, San Diego and San Luis Obispo Counties.	Vernal pools; 3-45 m.	Annual/perennial herb; Blooms July to August	**Not Expected.** There are two CNDDB records of Hoover's button celery within 5 miles of the project site near the Mountain View shoreline and at Stanford University from 1909 and 1907, but both are possibly extirpated. There is no suitable habitat for this species at or near the site.
Fragrant fritillary *Fritillaria liliacea*	CRPR 1B.2	Found throughout northern and central California wherever there is suitable habitat.	Cismontane woodland and coastal scrub and prairie, in valley and foothill grasslands (often serpentine bunchgrass grassland); 3-410 m.	Perennial bulbiferous herb; Blooms February to April	**Not Expected.** There is one CNDDB record of fragrant fritillary within 5 miles of the project site near Stanford University from 1934. However, there is no suitable habitat for this species at or near the site.
Slender-leaved pondweed *Stuckenia filiformis* ssp. *alpina*	CRPR 2B.2	In California, found in and around the Sierra Nevada from Modoc National Forest to near Yosemite National Park; also found in the coast ranges from Santa Rosa to Los Banos.	Marshes and swamps (assorted shallow and freshwater); 300-2,150 m.	Perennial rhizomatous herb (aquatic); Blooms May to July	**Not Expected.** There is one CNDDB record of fragrant fritillary within 5 miles of the project site near Stanford University from 1899. However, there is no suitable habitat for this species at or near the site.
California seablite *Suaeda californica*	FE, CRPR 1B.1	Endemic to coastal California in the San Francisco Bay Area and near San Luis Obispo.	Marshes and swamps (coastal salt); 0-15 m.	Perennial evergreen shrub, July to October	**Not Expected.** There is one CNDDB record of California seablite within 5 miles of the project site at the Palo Alto Baylands from 1971, but it is possibly extirpated. There is no suitable habitat for this species at or near the site.

Appendix A: Special Status Plant Species Evaluated for Potential to Occur on the Project Site

STATUS KEY:
Federal
FE: Federally-listed Endangered
FT: Federally-listed Threatened

State
SE: State-listed Endangered
ST: State-listed Threatened

California Native Plant Society (CNPS) California Rare Plant Rank (CRPR):
1B: Plants listed as rare, threatened, or endangered in California and elsewhere
2B: Plants listed as rare, threatened, or endangered in California but more common elsewhere

CNPS CRPR added a decimal threat rank to the List rank to parallel that used by the CNDDB. This extension replaces the E (Endangerment) value from the R-E-D Code. CRPR ranks therefore read like this: 1B.1, 1B.2, etc. Threat code extensions and their meanings are as follows:
.1 – Seriously endangered in California (over 80% of occurrences threatened / high degree of immediacy of threat)
.2 – Fairly endangered in California (20-80% occurrences threatened)
.3 – Not very endangered in California (<20% of occurrences threatened or no current threats known)

SOURCES:
1. United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPAC) Species List (August 3, 2023).
2. California Natural Diversity Database (CNDDB) Rarefind 5 search of Mountain View USGS Quad and eight surrounding quads; BIOS five mile radius search (August 3, 2023).
3. California Native Plant Society (CNPS) Rare and Endangered Plant Inventory Mountain View USGS Quad and eight surrounding quads (August 3, 2023).

OTHER CNDDB AND/OR CNPS SPECIAL-STATUS PLANT SPECIES IN 9 QUAD SEARCH AREA (NOT WITHIN 5 MILES OF THE PROJECT SITE)

- San Mateo thorn-mint (*Acanthomintha duttonii*), FE, SE, CRPR 1B.1
- Bent-flowered fiddleneck (*Amsinckia lunaris*), CRPR 1B.2
- California androsace (*Androsace elongata* ssp. *acuta*), CRPR 4.2
- Kings Mountain manzanita (*Arctostaphylos regismontana*), CRPR 1B.2
- Brittlescale (*Atriplex depressa*), CRPR 1B.2
- Lesser saltscale (*Atriplex minuscula*), CRPR 1B.1
- Brewer's calandrinia (*Calandrinia breweri*), CRPR 4.2
- Robust spineflower (*Chorizanthe robusta* var. *robusta*), FE, CRPR 1B.1
- Fountain thistle (*Cirsium fontinale* var. *fontinale*), FE, SE, CRPR 1B.1
- Lost thistle (*Cirsium praeteriens*), CRPR 1A
- Santa Clara red ribbons (*Clarkia concinna* ssp. *automixa*), CRPR 4.3
- Lewis' clarkia (*Clarkia lewisii*), CRPR 4.3
- Round-headed collinsia (*Collinsia corymbosa*), CRPR 1B.2
- Clustered lady's slipper (*Cypripedium fasciculatum*), CRPR 4.2
- Small spikerush (*Eleocharis parvula*), CRPR 4.3
- Bay buckwheat (*Eriogonum umbellatum* var. *bahiiforme*), CRPR 4.2
- San Mateo woolly sunflower (*Eriophyllum latilobum*), FE, SE, CRPR 1B.1
- Jepson's coyote thistle (*Eryngium jepsonii*), CRPR 1B.2
- San Joaquin spearscale (*Extriplex joaquinana*), CRPR 1B.2

Appendix A: Special Status Plant Species Evaluated for Potential to Occur on the Project Site

- Minute pocket moss (*Fissidens pauperculus*), CRPR 1B.2
- Marin western flax (*Hesperolinon congestum*), FT, ST, CRPR 1B.1
- Loma Prieta hoita (*Hoita strobilina*), CRPR 1B.1
- Coast iris (*Iris longipetala*), CRPR 4.2
- Contra Costa goldfields (*Lasthenia conjugens*), FE, CRPR 1B.1
- Legenere (*Legenere limosa*), CRPR 1B.1
- Serpentine leptosiphon (*Leptosiphon ambiguus*), CRPR 4.2
- Bristly leptosiphon (*Leptosiphon aureus*), CRPR 4.2
- Large-flowered leptosiphon (*Leptosiphon grandiflorus*), CRPR 4.2
- Broad-lobed leptosiphon (*Leptosiphon latisectus*), CRPR 4.3
- Woolly-headed lessingia (*Lessingia hololeuca*), CRPR 3
- Spring lessingia (*Lessingia tenuis*), CRPR 4.2
- Arcuate bush mallow (*Malacothamnus arcuatus*), CRPR 1B.2
- Hall's bush mallow (*Malacothamnus hallii*), CRPR 1B.2
- Woodland woollythreads (*Monolopia gracilens*), CRPR 1B.2
- Prostrate vernal pool navarretia (*Navarretia prostrata*), CRPR 1B.2
- Dudley's lousewort (*Pedicularis dudleyi*), CRPR 1B.2
- White-flowered rein orchid (*Piperia candida*), CRPR 1B.2
- Michael's rein orchid (*Piperia michaelii*), CRPR 4.2
- Choris' popcornflower (*Plagiobothrys chorisianus* var*. chorisianus*), CRPR 1B.2
- Hickman's popcornflower (*Plagiobothrys chorisianus* var. *hickmanii*), CRPR 4.2
- Hairless popcornflower (*Plagiobothrys glaber*), CRPR 1A
- California alkali grass (*Puccinellia simplex*), CRPR 1B.2
- Lobb's aquatic buttercup (*Ranunculus lobbii*), CRPR 4.2
- Chaparral harebell (*Ravenella exigua*), CRPR 1B.2
- Sanford's arrowhead (*Sagittaria sanfordii*), CRPR 1B.2
- Hoffman's sanicle (*Sanicula hoffmannii*), CRPR 4.3
- Chaparral ragwort (*Senecio aphanactis*), CRPR 2B.2
- Long-styled sand-spurrey (*Spergularia macrotheca* var. *longistyla*), CRPR 1B.2
- Most beautiful jewelflower (*Streptanthus albidus* ssp*. peramoenus*), CRPR 1B.2
- Two-fork clover (*Trifolium amoenum*), FE, CRPR 1B.1
- Santa Cruz clover (*Trifolium buckwestiorum*), CRPR 1B.1
- Saline clover (*Trifolium hydrophilum*), CRPR 1B.2
- Methuselah's beard lichen (*Usnea longissima*), CRPR 4.2

Appendix D: Archaeological Review, Basin Research Associates, September 1, 2023 [Confidential held on file at the City]

Appendix E: Preliminary Foundation Report Golf Cart Bridge Replacement (Bridge #25) Shoreline Golf Links 1st Fairway, City of Mountain View, California

DRAFT

PRELIMINARY FOUNDATION REPORT
GOLF CART BRIDGE REPLACEMENT (BRIDGE #25)
SHORELINE GOLF LINKS 1ST FAIRWAY
CITY OF MOUNTAIN VIEW, CALIFORNIA

Prepared For:
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San Jose, CA 95126

Prepared By:

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(408) 452-9000

August 15, 2022

Project No. 2021-139-GEO

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PRELIMINARY FOUNDATION REPORT
GOLF CART BRIDGE REPLACEMENT (BRIDGE #25)
SHORELINE GOLF LINKS 1ST FAIRWAY
CITY OF MOUNTAIN VIEW, CALIFORNIA

1.0 SCOPE OF WORK

This Preliminary Foundation Report (PFR) presents the preliminary geotechnical information for the proposed Golf Cart Bridge Replacement (Bridge #25) at Shoreline Golf Links 1st Fairway in the City of Mountain View, CA. The Project Location Map is shown on Plate No. 1.

The purpose of this report is to summarize the preliminary investigations performed and to provide foundation recommendations for the proposed bridge replacement. The recommendations presented in this report are based on the explorations performed by Parikh, laboratory test results, preliminary plans provided by the bridge engineer, review of available geological literature, and discussions with the design team.

The geotechnical recommendations presented in this report are intended for design input and are not intended to be used as specifications. These recommendations should not be used directly for bidding purposes or construction cost estimates by prospective contractors.

2.0 PROJECT DESCRIPTION

The planned bridge replacement is for the existing Bridge #25, which is an existing CMP culvert at the 1st fairway. The existing CMP culvert and Cart path have suffered settlement damages have been repaired by City several times. According to the preliminary General Plan provided, the proposed project will replace the existing CMP culvert with a single span prefabricated steel truss structure. The proposed bridge is 152 feet in length and 8 feet in width, supported on Caltrans standard 24-inch diameter cast-in-drilled-hole (CIDH) concrete piles. Minimal site grading is anticipated. The two abutments will conform to the existing grade.

In addition to Bridge #25, the geotechnical exploration also included Bridge #27 at the 5th fairway. It is our understanding that Bridge #27 will involve replacing the superstructure and no new foundation elements are planned. Therefore, no new foundation recommendations are required.

3.0 EXCEPTION TO POLICY

No.

4.0 FIELD INVESTIGATION

Total of three (3) Cone Penetration Tests, CPT-1, CPT-2 & CPT-3, and two (2) Geoprobes, GP-1 & GP-2 were performed at site on October 4 and 5, 2022. CPT-1 and GP-1 were done on the north

side (planned new Abutment 2) of the existing Bridge #25. CPT-3 was done on the south side (planned new Abutment 1) of the exiting Bridge #25. CPT-2 and GP-2 were done on the north side of existing Bridge #27 as additional reference. Note that CPT-1, GP-1 and CPT-3 data were the basis for designing of the subject bridge (replacement of Bridge #25). The exploration location map is attached in Appendix II.

The CPTs were pushed to 100 feet below grade. The Geoprobes were pushed to 30 feet below grade. The CPT soundings collected continuous data from tip/side resistance and pore pressure data through the depth for interpretation of soil strength and properties. The Geoprobes retrieved continuous soil samples in plastic sleeves for the 30 feet depth for further examination and testing in the laboratory

The drilling subcontractor was GeoEx Exploration from Dixon, CA. The Geoprobe samples were sealed and transported to our laboratory for further evaluation and testing. The field investigation was conducted under the supervision of our field engineer who observed the field operation and prepared the samples for subsequent laboratory testing and evaluation. The existing grades at two end of the existing Bridge #25 are at about Elev. 13 to 14 feet based on the General Plan dated July 21, 2022.

The boring logs were prepared from the samples retrieved from the Geoprobes, which were edited after visual re-examination of the soil samples in the laboratory and results of classification tests on selected soil samples as indicated on the logs. The abrupt stratum changes shown on these logs may be gradual and relatively minor changes in soil types within a stratum may not be noted on the logs due to field limitations. Both the CPT report (by GeoEx) and Geoprobe Boring logs are attached in Appendix II.

Due to limitations inherent in geotechnical investigations, it is neither uncommon to encounter unforeseen variations in the soil conditions during construction nor is it practical to determine all such variations during an acceptable program of drilling and sampling for a project of this scope. Such variations, when encountered, generally require additional engineering services to attain a properly constructed project. It is, therefore, recommended that a contingency fund be provided to accommodate any additional charges resulting from technical services that may be required during construction.

5.0 LABORATORY TESTING PROGRAM

Laboratory tests were performed on selected samples in the laboratory to evaluate the physical and engineering properties of the subsoils. The tests performed for the study include the

following: Laboratory determination of Moisture-Density (ASTM D 2216), Atterberg Limits (ASTM D 4318), Grain Size Analysis (ASTM D 422), and Corrosion Test (California Test Method 643). The laboratory test results are attached in Appendix II.

6.0 SITE GEOLOGY AND SUBSURFACE CONDITIONS

6.1 Site Geology

The project is located within the Coast Ranges Geomorphic Province and adjacent to the southern San Francisco Bay. Geologic unit extents and descriptions have been derived from Witter et al., (2006), "Maps of Quaternary Deposits and Liquefaction Susceptibility in the Central San Francisco Bay Region, California, USGS OF-06-1037".

Project site geology is shown on Plate 2 and indicates the site is underlain by artificial fill over estuarine mud (afem). The unit is described as fill deposited over sediments along the margins of San Francisco Bay and other estuarine deposits mapped in the Sacramento/San Joaquin delta. The fill may be engineered and/or non-engineered material and each may occur within the same area. This mapped artificial fill overlies estuarine sediment and was placed to form new land. The thickness of the fill overlying estuarine sediment is typically five to twenty feet.

Depth to bedrock was not revealed during this investigation, however a well drilled about 6,000 feet south-east of the project site (Well # 24340) did not intersect bedrock to a maximum depth of about 750 feet below surface. Geologic and elevation data relative to the site does not indicate the presence of geologic hazards such as landslides, slope failure, rockfalls, or debris flows.

An artificial lake is located adjacent to the Project site and covers an area about 6.2 acres. Historical aerial photography and topographic maps indicate the Project area was occupied by marshland, agricultural land, and partly by a shallow perennial artificial lake that was mostly infilled prior to 1939.

6.2 Subsurface Conditions

The exploration data indicate that the subsoils consist predominantly of fine-grained cohesive soils of medium plasticity. The consistency generally is medium stiff to stiff. CPT-1, at Abutment 2, encountered two sand layers/lenses at approx. 25 and 50 feet deep. CPT-3,

at Abutment 1, did not encounter sand layers through 100 feet depth. Sand pockets/lenses could be sporadic and intermixed in the clay stratigraphy.

Groundwater is at shallow depth as the site is next to the pond. Filed observation indicated that the water may be just a couple feet below grade. The CPT data interpretation appears to indicate that the groundwater level could be at ground surface. Groundwater may vary with the passage of time due to seasonal groundwater fluctuation, local irrigation practice, surface and subsurface flows, ground surface run-off, and other factors that may not be present at the time of investigation.

Due to limitations inherent in geotechnical investigations, it is neither uncommon to encounter unforeseen variations in the soil conditions during construction nor is it practical to determine all such variations during an acceptable program of drilling and sampling for a project of this scope. Such variations, when encountered, generally require additional engineering services to attain a properly constructed project. We, therefore, recommend that a contingency fund be provided to accommodate any additional charges resulting from technical services that may be required during construction.

7.0 AS-BUILT FOUNDATION DATA

It is our understanding that the existing "Bridge #25" is just a culvert leading the path to Fairway 1. The existing culvert has suffered damage from settlement and pavement cracking. There is no data regarding how the culvert was constructed.

8.0 SCOUR EVALUATION

The proposed bridge crosses a pond within the golf course. We are not aware of design concern due to scour at the site. The abutment locations were selected behind the water edge, and the footings are buried in the soil with FG gently sloping away from the footings per the General Plan.

9.0 CORROSION EVALUATION

The corrosion investigation for this project was performed on selected samples in general accordance with the provisions of California Test Method 643. A summary of the corrosion test results is presented in the following table. For structural elements, Caltrans Corrosion Guidelines (May 2021) consider a site to be corrosive if one or more of the following conditions exist for the representative soil/water samples at the site: Chloride concentration is 500 ppm or greater; Sulfate concentration is 1500 ppm or greater; or the pH value is 5.5 or less.

Table 9.1 – Corrosion Test Results

Boring No.	Depth (ft)	pH	Minimum Resistivity (ohms-cm)	Chloride Content (ppm)	Sulfate Content (ppm)
GP-1	0 - 5	7.59	830	137.82	982

Based on the test results, the on-site material is considered non-corrosive according to the Corrosion Guidelines by Caltrans Division of Engineering Services. The guidelines presented in the California Amendments to the AASHTO LRFD Bridge Design Specifications (BDS, 2012), Article 5.12.3, for a minimum cement factor and cover thickness may be used for the substructure.
The corrosion test results are presented in Appendix II.

10.0 SEISMIC RECOMMENDATIONS

10.1 Seismic Sources

The project site is located in a seismically active part of northern California. Santa Clara County and the rest of the Bay Area are in one of the most active seismic regions in the United States. Many active faults exist in the regional area and can produce earthquakes that may cause strong ground shaking at the project site. Each year, low- and moderate-magnitude earthquakes occurring within or near the Bay Area are felt by residents. Since the mid-nineteenth century, hundreds of earthquakes have been felt in Santa Clara County. The "Loma Prieta Earthquake" of October 17, 1989, originated within the San Andreas Fault Zone and caused severe damage throughout much of the Bay Area. The major fault zones of the San Andreas Fault System (including the Hayward and Calaveras faults) have been the source of other earthquakes and are expected to be a source of future earthquakes. A fault map showing the active faults within about sixty miles of the Project site is shown in Plate No. 3.

10.2 Seismic Hazards

10.2.1 Fault Rupture

A review of the Mountain View Alquist-Priolo Earthquake Fault Zone Map indicates the project is not located within an Alquist-Priolo Earthquake Fault Zone. The USGS Quaternary Fault and Fold Database shows that the project is not located within 1,000 feet of an unzoned fault that is Holocene/Latest Pleistocene (15,000 years) or younger in age. In assessing seismic risks, we consider that surface fault rupture does not contribute to the seismic hazards at the site during the useful life of the project. The preceding statements do not make inferences on the potential for aseismic

surface cracking.

10.2.2 Liquefaction Potential

Liquefaction is a phenomenon that saturated cohesionless soils are subject to a temporary but essentially total loss of shear strength under the reversing, cyclic shear stresses associated with earthquake shaking. Submerged cohesionless sands and silts of low relative density are the type of soils, which usually are susceptible to liquefaction. Clays are generally not susceptible to liquefaction.

The liquefaction potential was evaluated in accordance with the methods proposed by Youd, et al. (2001), using the boring data obtained in 2012. As indicated in soil liquefaction engineering (Bray, 2006), for soils with sufficient fines content to separate the coarser particles and control behavior, liquefaction appears to occur in soils where these fines are either non-plastic or are low plasticity silts and/or silty clays (PI<12%, and LL<37%), and with high water content relative to their liquid limit (w> 0.85LL). Further research based on EERI MNO-12 (Idriss and Boulanger, 2008) indicated that fine-grained soils with PI of 7% of more tend to exhibit “clay-like” material behavior during seismic loading.

The project site is located in an area where has very high liquefaction susceptibility according to the Maps of Quaternary Deposits and Liquefaction Susceptibility in the Central San Francisco Bay Region, California; USGS in Cooperation with the California Geological Survey; Open-File Report 06-1037; by Robert C. Witter, et al. 2006. A Liquefaction Susceptibility Map for the site is attached as Plate No. 4.

Based on the exploration data at site, the subsoils are primarily cohesive soils. There are isolated pockets and lenses of medium dense sand and gravel in the clayey deposits. These locally encountered sand and gravel pockets are relatively thin and not continuous. In our opinion, liquefaction triggering potential exists at the site, but it is considered to have relatively insignificant impact on foundation design of the planned bridge replacement.

10.3 Seismic Design Criteria

The site may be subject to strong ground motions from nearby earthquake sources during the design life of the bridge. Based on available subsurface information and standard soil

strength correlations for determining shear wave velocity per Caltrans guidelines, the average shear wave velocity (V_{S30m}) for the upper 100 feet of soil is estimated to be about 195 m/sec based on the CPT data.

The development of the acceleration response spectrum (ARS) followed the current Caltrans procedure based on the Caltrans Seismic Design Criteria (SDC V. 2.0) by using Caltrans ARS Online V. 3.0.2. The Design Spectrum is based on the USGS 975-year uniform hazard spectrum which is based on the 2014 National Hazard Map. We have generated the preliminary spectrum based on the site location and the parameters, as summarized below. The recommended ARS curve is presented in Appendix I with backup data. The site soil is categorized as Soil Type "S2" per Caltrans SDC V. 2.0.

Table 10.3 – Recommended Ground Motion Parameters for Geotechnical Design

Site Parameters			Design Ground Motion Parameters (Return Period = 975 years)		
Locations		Shear-Wave Velocity V_{S30m}, m/sec	Horizontal Peak Ground Acceleration (HPGA) (1), g	Mean Earthquake (1) M, Moment Magnitude	Mean Site-to-Fault/ Rupture Surface Distance (2) Rrup, km
Latitude, degrees	Longitude, degrees				
37.429986	-122.084612	195	0.62	7.10	16.3

Note: (1) Based on the Caltrans web tool ARS Online (Version 3.0.2)

11.0 PRELIMINARY GEOTECHNICAL RECOMMENDATIONS

11.1 General

This report was prepared specifically for the proposed project described in Section 2.0. Normal procedures were assumed for construction of the bridge structure throughout our analysis and represent the basis of the recommendations presented herein. The design criteria provided are based on the materials encountered in our test borings at the site. Therefore, this office should be notified if changed subsurface conditions are encountered, so that we are provided an opportunity to modify or amend our recommendations, if needed.

11.2 Bridge Structure Foundations

For selection of foundation type for the project, we have considered the site constraints and noise and vibration effect for the area. Per our discussion with the designer, Cast-in-Drilled-Hole (CIDH) concrete pile is the preferred foundation support system.

The plans indicate minimum fill at the approaches, and the bridge is a prefabricated steel truss structure. The CIDH pile design (vertical and lateral) follows Caltrans standard guidelines and the AASHTO LRFD specifications with California Amendments (8th edition, 2017). A minimum pile spacing of 3 x Diameter is recommended.

Vertical Design. The pile capacities of the CIDH piles were estimated in general accordance with the procedures outlined in Section 10.8.3.5 of AASHTO LRFD BDS 8th Edition (2017) with California Amendments. For clay soils, the procedure utilizes a α factor for cohesive materials, where α is a function of the undrained shear strength of the clayey material. For granular soils, the β method is commonly adopted and accepted by Caltrans for design, where the β factor is a function of depths.

The pile capacity of the CIDH pile was derived only from frictional resistance along the pile shafts, and end bearing capacity was not included when estimating the pile capacity. Computer program "SHAFT" (by ENSOFT, Inc.) was used for calculation purpose.

Based on discussion with the designer, we have considered pile sizes of 2, 2.5 and 3 feet to show ultimate pile shaft capacity vs. pile length for information. Note that per Caltrans Memo to Designers (MTD) 3-1, the maximum pile length to diameter ratio should be kept under 30:1 from construction aspect. The pile capacity plot is attached in Appendix III. The foundation design is typically governed by the Strength Limit State design of the AASHTO LRFD Specifications. For pile sizes of 2, 2.5 and 3 feet, the pile embedment lengths are limited to 60, 75 and 90 feet, respectively. The designer may select appropriate pile diameter and length for foundation support.

Lateral Design. It is our understanding that the designer will perform lateral design of the abutment piles using LPILE program. For LPILE analysis, the recommended geotechnical parameters are presented in the following table.

Table 11.1 – Recommended LPILE PARAMETERS

Approx. Depth (ft.)	Generalized Soil Profile	LPILE Soil Type	Soil Strength	K (pci)	E_{50} (in/in)	Effective Unit Wt. (pcf)
0 to 5	Sand and Silt	Sand	$\phi = 30°$	Default	Default	120
5 to 10	Clay, trace sand	Clay, stiff (without free water)	C = 1000 psf	Default	Default	57.6
10 to 20	Lean Clay	Clay, stiff (without free water)	C = 800 psf	Default	Default	57.6

Approx. Depth (ft.)	Generalized Soil Profile	LPILE Soil Type	Soil Strength	K (pci)	E_{50} (in/in)	Effective Unit Wt. (pcf)
20 to 30	Lean Clay	Clay, stiff (without free water)	C = 1500 psf	Default	Default	57.6
30 to 40	Lean Clay	Clay, stiff (without free water)	C = 1750 psf	Default	Default	57.6
40 to 45	Lean Clay	Clay, stiff (without free water)	C = 1000 psf	Default	Default	57.6
45 to 55	Lean Clay	Clay, stiff (without free water)	C = 1250 psf	Default	Default	57.6
55 to 65	Lean Clay	Clay, stiff (without free water)	C = 2000 psf	Default	Default	57.6
65 to 100	Lean Clay	Clay, stiff (without free water)	C = 1250 psf	Default	Default	57.6

Default values can be used for ε_{50} and K.
Depth "0" is existing roadway grade at ~ Elev. 13 ft. Design groundwater level at ~ 5 ft below grade.

Refer to the California Amendments to AASHTO LRFD Spec – 8th ed. (Table 10.7.2.4-1), "Pile P-Multipliers, Pm for Multiple Row Shading," to account for group effect in longitudinal and transverse directions.

11.3 Lateral Earth Pressures

The bridge abutment backfill material should consist of Caltrans standard Structure Backfill. Proper drainage should be provided.

Active Condition	36 pcf (drained condition), 80 pcf (undrained condition with water pressure)
At-Rest Condition	55 pcf (drained condition), 90 pcf (undrained condition with water pressure)
Passive Resistance	For the longitudinal stiffness and passive resistance, the abutment walls should be designed based on the bilinear model per Sect. 6.3.1 of the Caltrans SDC v2.0. The bilinear model is based on experimental and calibrated analytical models using engineered structural backfill to relative compaction of at least 95%.

For seismic design, the recommended kh is 50% PGA per AASHTO. Per Caltrans ARS V. 3.0, the PGA at site is 0.62 g, and kh is 0.31. Per AASHTO LRFD Specifications, the recommended total Kae is 0.50 (Kae = 0.50, DKae = 0.50-Ka= 0.50-0.28 = 0.22 where Ka = 0.28 for Structure Backfill with f=34 deg). Use total unit weight of 125 pcf for Structure Backfill. The seismic lateral earth pressure is distributed as a regular triangular shape per AASHTO specifications.

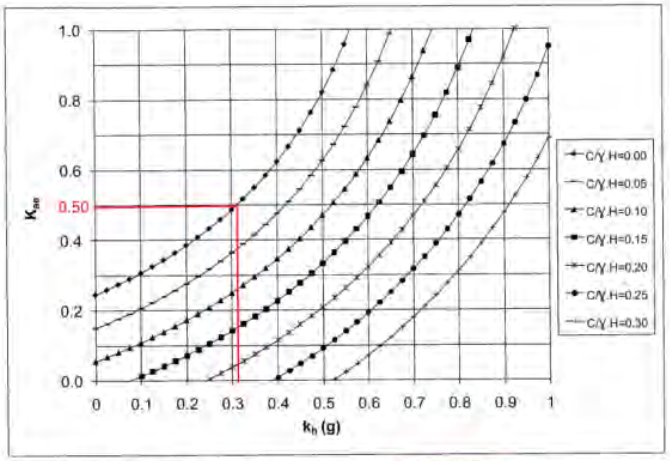


Figure A11.3.2-3—Seismic Active Earth Pressure Coefficient for ϕ = 35 degrees (c = soil cohesion, γ = soil unit weight, and H = retaining wall height)

11.4 Pavement Design

Based on the exploration data, the native upper material at anticipated pavement subgrade appear to consist of silts with fine sands. We believe a R-value of 5 would be on the conservative side for design. For any import material for engineering use, we recommend a maximum PI of 15 for the import.

The anticipated traffic is from golf carts, occasional maintenance trucks and foot traffics. It is our understating that an exact Traffic Index (TI) is not available for design. For budgeting purpose, the following pavement sections may be considered, and the City/designer may determine the applicable Traffic Index (TI).

- TI = 5 8 inches full depth HMA, or 3 inches HMA over 10.5 inches AB
- TI = 6 9 inches full depth HMA, or 4 inches HMA over 13.0 inches AB

Follow Caltrans standard specifications. HMA: Type A, Aggregate Base (Class 2, R =78). The subgrade should be prepared and compacted to min. 95% compaction.

12.0 CONSTRUCTION OF CIDH CONCRETE PILES

Caltrans standard specifications (2018) for "Cast-in-Place Concrete Piling" should be used for construction of the CIDH concrete piles. Access tubes for acceptance testing should be provided in all CIDH concrete piles that are 24 inches in diameter or larger for construction quality control, except when the holes are dry or when the holes are dewatered without the use of temporary casing to control groundwater. The acceptance test should include Gamma-Gamma Logging and

may also include cross-hole sonic logging for verification. Gamma-Gamma Logging should be performed in accordance with California Test 233 Standard (CT233) to check the homogeneity of CIDH concrete piles. Anomalies detected should be evaluated by the designers for their significance and potential impact on design and to see if mitigation plans are required.

Due to the presence of granular pockets and lenses, raveling or caving may be anticipated, which may require additional drilling and cleaning effort and may increase the concrete volume for the piles. It is prudent to make the contractor aware of these conditions so that appropriate steps can be taken to comply with the standards and maintain the integrity of the CIDH concrete pile. The contractor should be prepared if temporary steel casing is required for pile installation.

It is recommended that the specifications set certain criteria for qualifications and previous work experience requirements to pre-qualify the potential contractors. The intent is to help select qualified contractors to reduce construction issues. Mitigation and repair procedures for CIDH anomaly should be anticipated. All pile excavations should be observed by a geotechnical engineer prior to the placement of reinforcement and concrete so that if conditions differ from those anticipated, appropriate recommendations can be made.

13.0 INVESTIGATION LIMITATION

Our services consist of professional opinions and recommendations made in accordance with generally accepted geotechnical engineering principles and practices and are based on our site reconnaissance and the assumption that the subsurface conditions do not deviate from observed conditions. All work done is in accordance with generally accepted geotechnical engineering principles and practices. No warranty, expressed or implied, of merchantability or fitness, is made or intended in connection with our work or by the furnishing of oral or written reports or findings.

The scope of our services did not include any environmental assessment or investigation for the presence or absence of hazardous or toxic materials in structures, soil, surface water, groundwater or air, below or around this site. Unanticipated soil conditions are commonly encountered and cannot be fully determined by taking soil samples and excavating test borings; different soil conditions may require that additional expenditures be made during construction to attain a properly constructed project. Some contingency fund is thus recommended to accommodate these possible extra costs.

This report has been prepared for the proposed project as described earlier, to assist the engineer in the design of this project. In the event any changes in the design or location of the facilities are planned, or if any variations or undesirable conditions are encountered during construction, our conclusions and recommendations shall not be considered valid unless the changes or variations are reviewed, and our recommendations modified or approved by us in writing.

This report is issued with the understanding that it is the designer's responsibility to ensure that the information and recommendations contained herein are incorporated into the project and that necessary steps are also taken to see that the recommendations are carried out in the field.

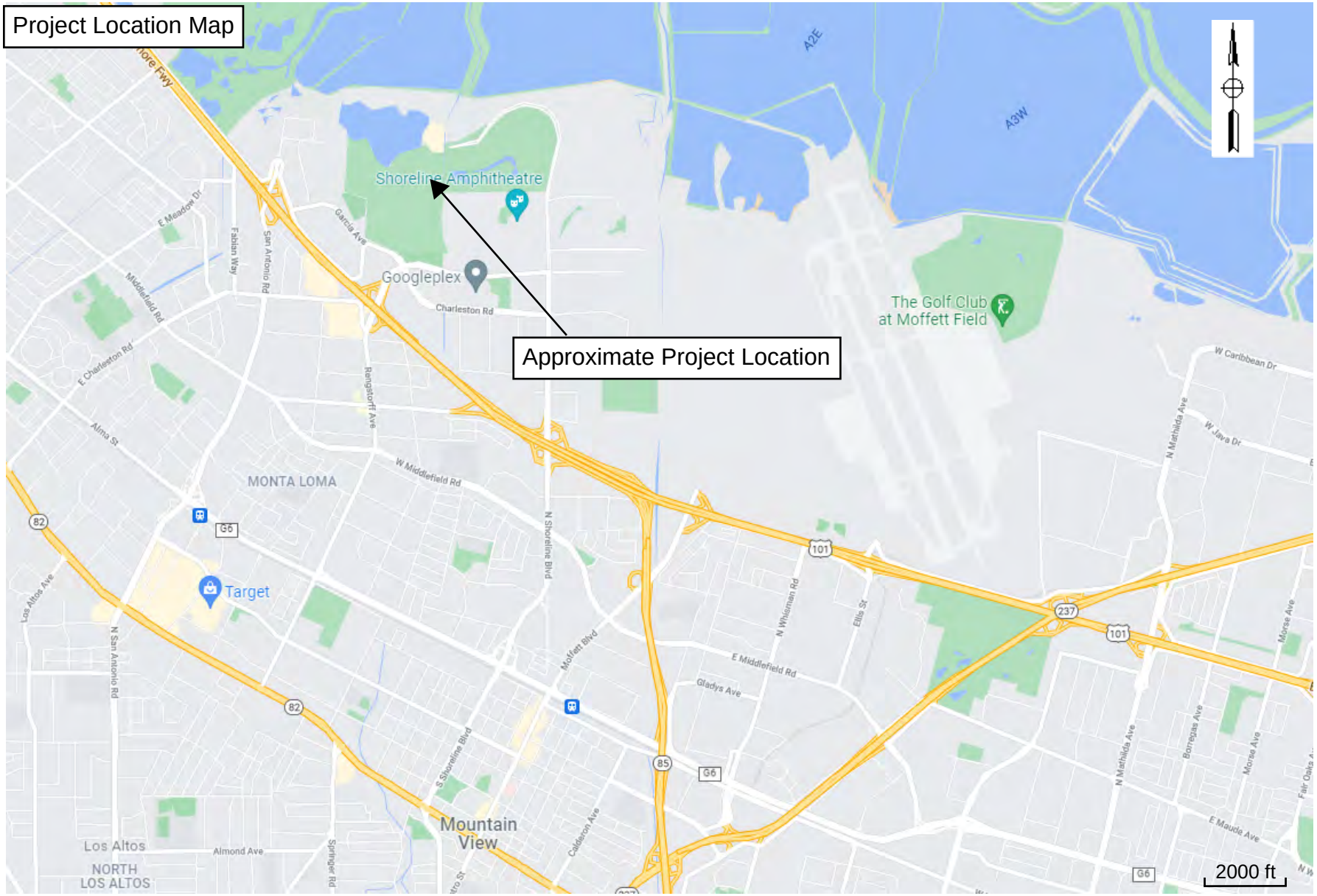
The findings in this report are valid as of the present date. However, changes in the subsurface conditions can occur with the passage of time, whether they are due to natural processes or to the works of man, on this or adjacent properties. In addition, changes in applicable or appropriate standards occur, whether they result from legislation or from the broadening of knowledge. Accordingly, the findings in this report might be invalidated, wholly or partially, by changes outside of our control.

Respectfully submitted,
PARIKH CONSULTANTS, INC.

Y. David Wang, Ph.D., P.E. 52911
Senior Engineer

Gary Parikh, P.E., G.E. 666
Project Manager

Project Location Map



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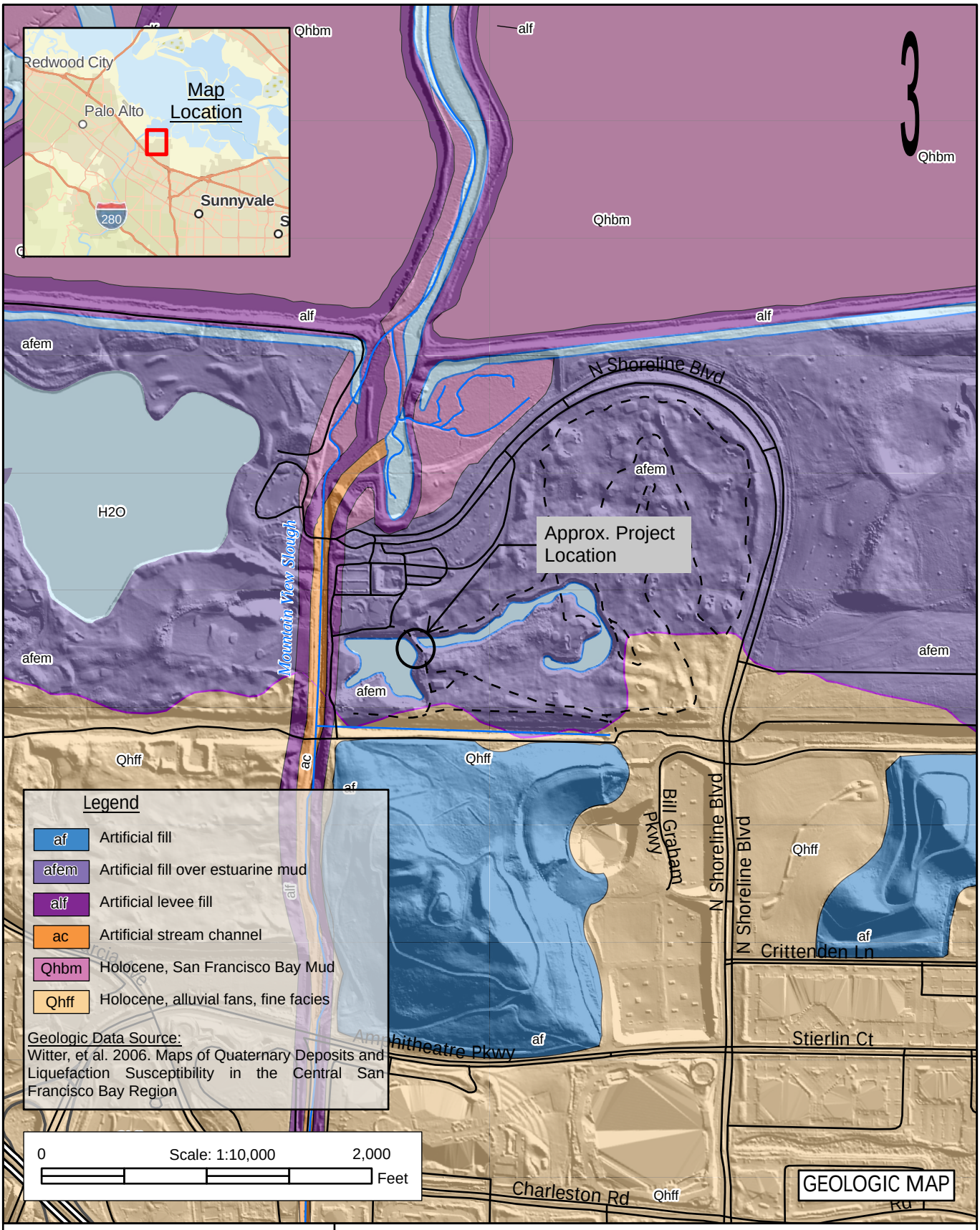
SHORELINE GOLF LINKS - BRIDGE (#25) REPLACEMENT
CITY OF MOUNTAIN VIEW, CALIFORNIA

JOB NO.: 2021-139-GEO	PLATE NO.: 1



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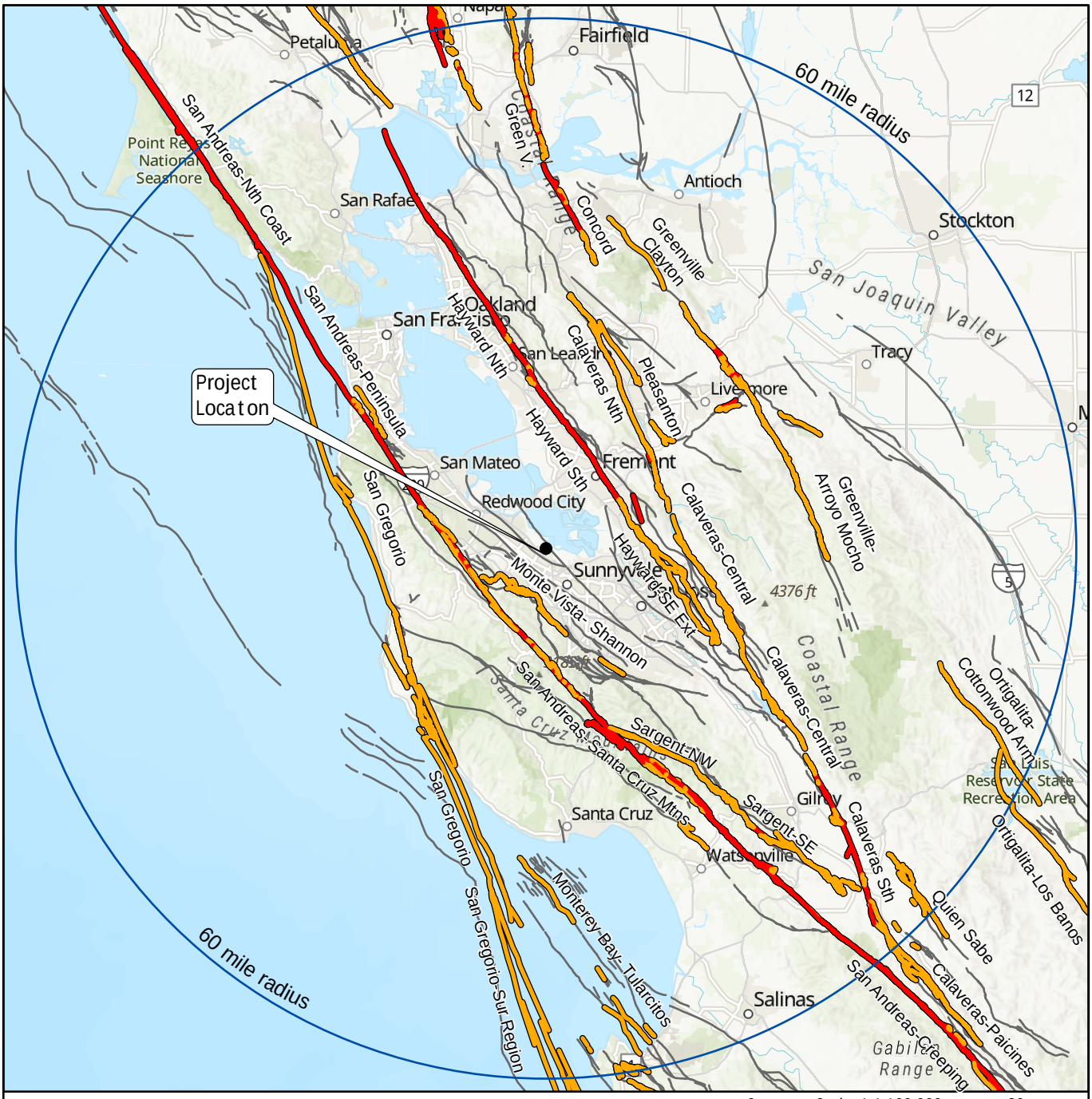
SHORELINE GOLF LINKS - BRIDGE (#25) REPLACEMENT
CITY OF MOUNTAIN VIEW, CALIFORNIA

Job No. 2021-139-GEO

Plate No. 2



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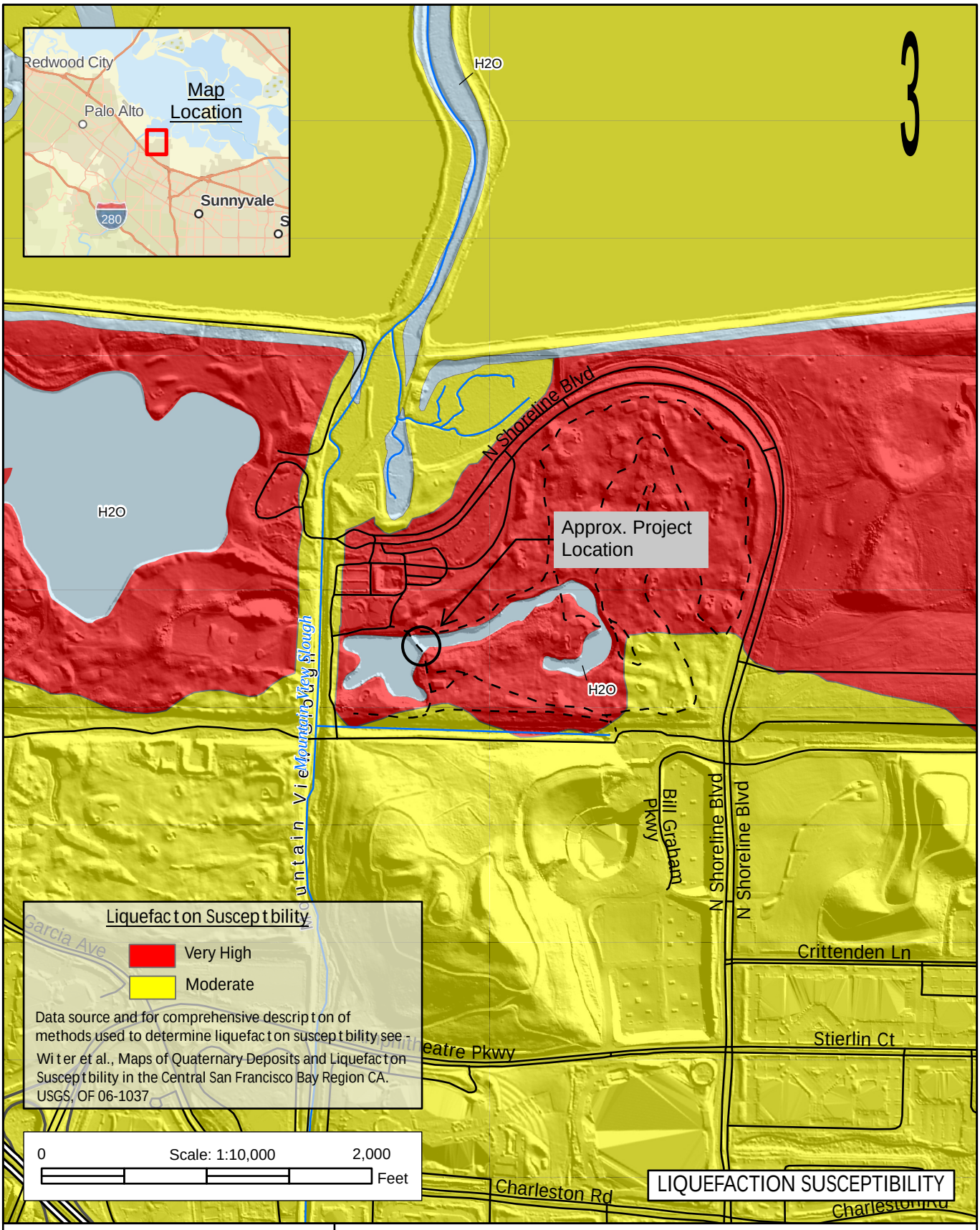
SHORELINE GOLF LINKS - BRIDGE (#25) REPLACEMENT
CITY OF MOUNTAIN VIEW, CALIFORNIA

Job No. 2021-139-GEO

Plate No. 3



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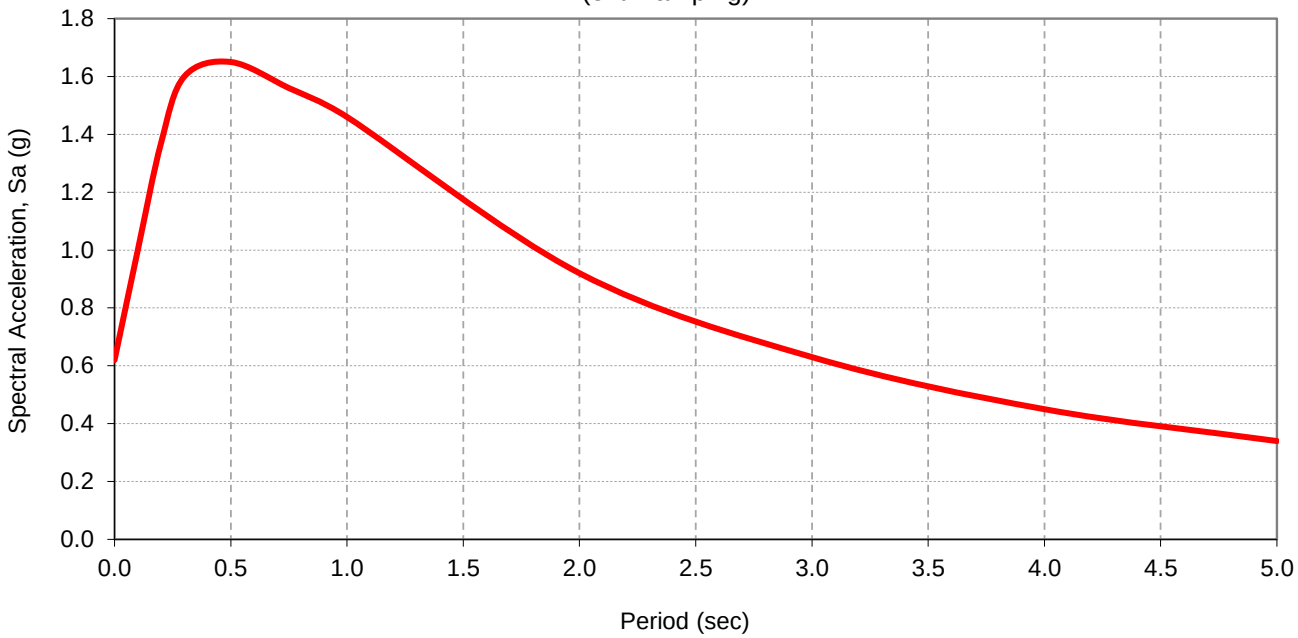
SHORELINE GOLF LINKS - BRIDGE (#25) REPLACEMENT
CITY OF MOUNTAIN VIEW, CALIFORNIA

Job No. 2021-139-GEO | Plate No. 4

APPENDIX I

RECOMMENDED ACCELERATION RESPONSE SPECTRUM

(5% Damping)



Site Information

Latitude:	37.429986
Longitude	-122.084612
V_{S30} (m/s) =	195
Mean Magnitude (for PGA)	7.10
Near Fault Factor, Derived from USGS Unified Hazard Site (km) =	16.3

Recommended Response Spectrum

Period (sec)	Spectral Acceleration (2014) (g)	Adjusted for Near Fault Effect	Adjusted For Basin Effect	Design Spectral Acceleration (2014) (g)
0.0	0.62	1	1	0.620
0.1	1	1	1	1.000
0.2	1.37	1	1	1.370
0.3	1.6	1	1	1.600
0.5	1.65	1	1	1.650
0.75	1.43	1.09	1	1.560
1.0	1.25	1.17	1	1.460
2.0	0.78	1.17	1	0.920
3.0	0.53	1.17	1	0.630
4.0	0.38	1.17	1	0.450
5.0	0.29	1.17	1	0.340

Source:

1. Caltrans ARS Online tool (V.3.0.2, https://arsonline.dot.ca.gov/)

2. Caltrans SDC 2.0 was adopted September 1, 2019. Design Spectrum is based on the USGS 975 year uniform hazard spectrum only.

ARS Online V3.0.2

Using the tool: Specify latitude and longitude in decimal degrees in the input boxes below. Alternatively, **Google Maps** can be used to find the site location. Specify the time-averaged shear-wave velocity in the upper 30m (Vs30) in the input box. After submitting the data, the USGS 2014 hazard data for a 975-year return period will be reported along with adjustment factors required by Caltrans Seismic Design Criteria (SDC) V2.0.

Latitude: 37.429986 **Longitude:** -122.084612 **Vs30 (m/s):** 195 Submit

Caltrans Design Spectrum (5% damping)

Period(s)	Sa_{2008}(g)	Sa_{2014}(g)	$Basin_{2008}$	$Basin_{2014}$	Near Fault Amp	Design Sa_{2008}(g)	Design Sa_{2014}(g)
PGA	0.58	0.62	1	1	1	0.58	0.62
0.10	0.98	1	1	1	1	0.98	1
0.20	1.23	1.37	1	1	1	1.23	1.37
0.30	1.27	1.6	1	1	1	1.27	1.6
0.50	1.16	1.65	1	1	1	1.16	1.65
0.75	1.01	1.43	1	1	1.09	1.09	1.56
1.0	0.87	1.25	1	1	1.17	1.02	1.46
2.0	0.56	0.78	1	1	1.17	0.66	0.92
3.0	0.37	0.53	1	1	1.17	0.44	0.63
4.0	0.27	0.38	1	1	1.17	0.32	0.45
5.0	0.22	0.29	1	1	1.17	0.26	0.34

Copy table

Deaggregation (based on 2014 hazard)

mean magnitude (for PGA)	7.1
mean site-source distance (km, for Sa at 1s)	16.3

Option: recalculate Near Fault amplification with user specified distance

Site-source distance (km): 16.3 Update

APPENDIX II

PARIKH
Practicing in the Geosciences

SHORELINE GOLF LINKS - BRIDGE REPLACEMENT
CITY OF MOUNTAIN VIEW, CALIFORNIA

JOB NO.: 2021-139-GEO	PLATE NO.: 2

CPT Data Report

Geo-Ex Subsurface Exploration
Dixon, CA

Date: October 12, 2021

CPT Report 021-004-12

1. Introduction

This report has been prepared by Geo-Ex Subsurface Exploration on October 12, 2021. It contains the data of 3 cone penetration tests at the Parikh Shoreline in Mountainview, CA. using the CPeT-it software (version 3.2.1.7).

Geo-Ex Subsurface Exploration is a registered California Small Business Enterprise (Micro Business), located in Dixon, CA, providing among others CPT services to the geotechnical, environmental and construction industries.

Our corporate goal is to provide quality services as well as innovative solutions for our clients ever changing needs. We are also committed to providing cost-effective solutions, quality project management, schedule control and ensuring that all services are in compliance with all applicable regulatory requirements.

For more information, including a more complete listing of the services we can provide, please visit our website (www.geoexsubsurface.com) and for clarifications or additional information please contact our offices:

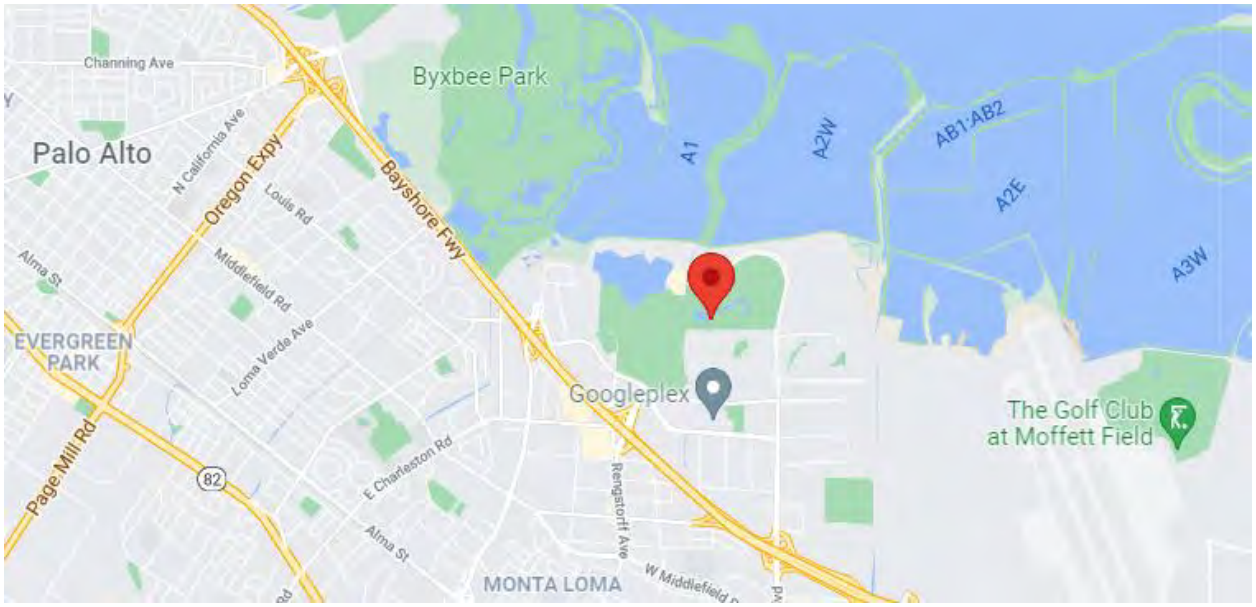
Tom Scott
Geo-Ex Subsubsurface Exploration
1510 Madera Dr.
Dixon, CA 95620

Ph: (916) 799-8198

WARNING:
Geo-Ex Subsubsurface Exploration uses a commercial CPT interpretation and plotting software CPeT-IT (https://geologismiki.gr/products/cpet-it/). The software takes the CPT data and performs basic interpretation in terms of soil behavior type (SBT) and various geotechnical parameters using current published empirical correlations based on the comprehensive review by Lunne, Robertson and Powell (1997) and updated by Robertson and Cabal (2015). The interpretation is presented in tabular format. The interpretations are presented only as a guide for geotechnical use and should be carefully reviewed. Geo-Ex Subsubsurface does not warranty the correctness or the applicability of any of the geotechnical parameters interpreted by the software and does not assume any liability for any use of the results in any design or review. The user should be fully aware of the techniques and limitations of any method used in the software.

2. Project Location

Geo-Ex Subsubsurface Exploration has performed 3 cone penetration tests at the Parikh Shoreline in Mountainview, CA.



3. General Proj ect Information

Operator name (or initials)	Nicholas Maher
Project designation	Parikh Shoreline, Mountainview, CA
Ground surface elevation	0 ft
Ground water surface elevation	this was not confirmed during the testing; therefore all plots have been generated assuming an elevation of 0 ft;
Sounding locations	CPT-1, CPT-2 and CPT-3
Sounding date	October 4, 2021,

Equipment Used

Cone manufacturer	Hogentogler
Cone type used	10 cm^2 piezocone
Cone serial number	5583.101
Type of thrust machine	20 kN pusher
Method used to provide reaction force	vehicle dead weight
Location and type of friction reduction system	none
Calibration data	see section 5

Any special difficulties or other observations concerning performance of the equipment
none

Information on other sensing devices used during the sounding
N/A

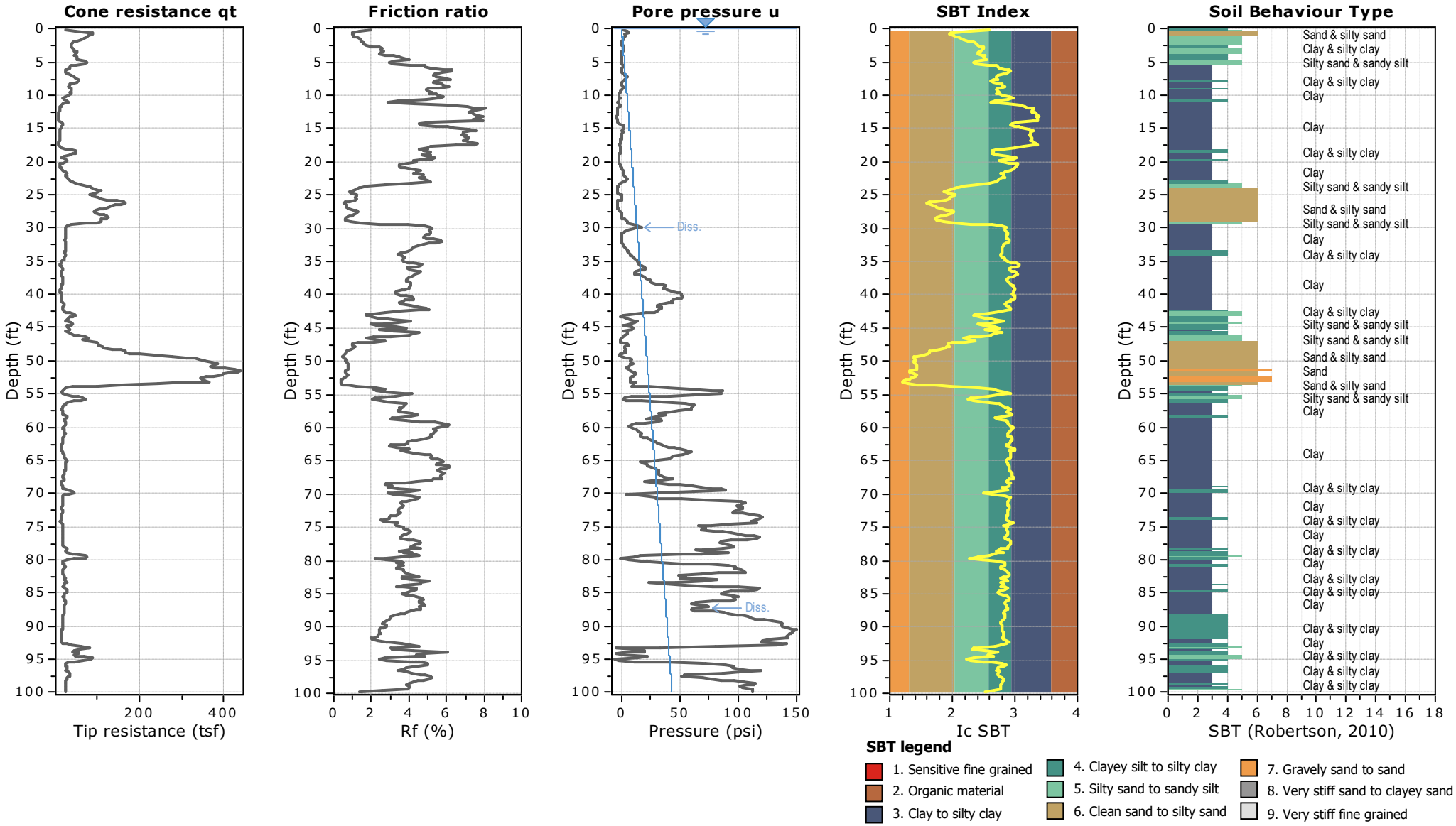
Any observations concerning the quality of the recorded data
N/A

4. CPT Plots

Geo-Ex Subsurface
Geotechnical - Environmental
Dixon, CA
http://www.geoexsubsurface.com

CPT: CPT-1
Total depth: 99.90 ft, Date: 10/4/2021
Surface Elevation: 0.00 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator:

Project: **Parikh Shoreline**
Location: **Mountainview, CA**



Dissipation Tests Results

Dissipation tests

Dissipation tests consists of stopping the piezocone penetration and observing porepressures (u) with elapsed time (t). The data are automatic recorded by the field computer and should take place until a minimum of 50% dissipation.

The porepressures are plotted as a function of square root of (t). The graphical technique suggested by Robertson and Campanella (1989), yields a value for t_{50}, which corresponds to the time for 50% consolidation.

The value of the coefficient of consolidation in the radial or horizontal direction c_h was then calculated by Houlsby and Teh's (1988) theory using the following equation:

$$c_h = \frac{T \times r^2 \times I_r^{0.5}}{t_{50}}$$

where:

T: time factor given by Houlsby and Teh's (1988) theory corresponding to the porepressure position
r: piezocone radius
I_r: stiffness index, equal to shear modulus G divided by the undrained strength of clay (S_u).
t_{50}: time corresponding to 50% consolidation

Permeability estimates based on dissipation test

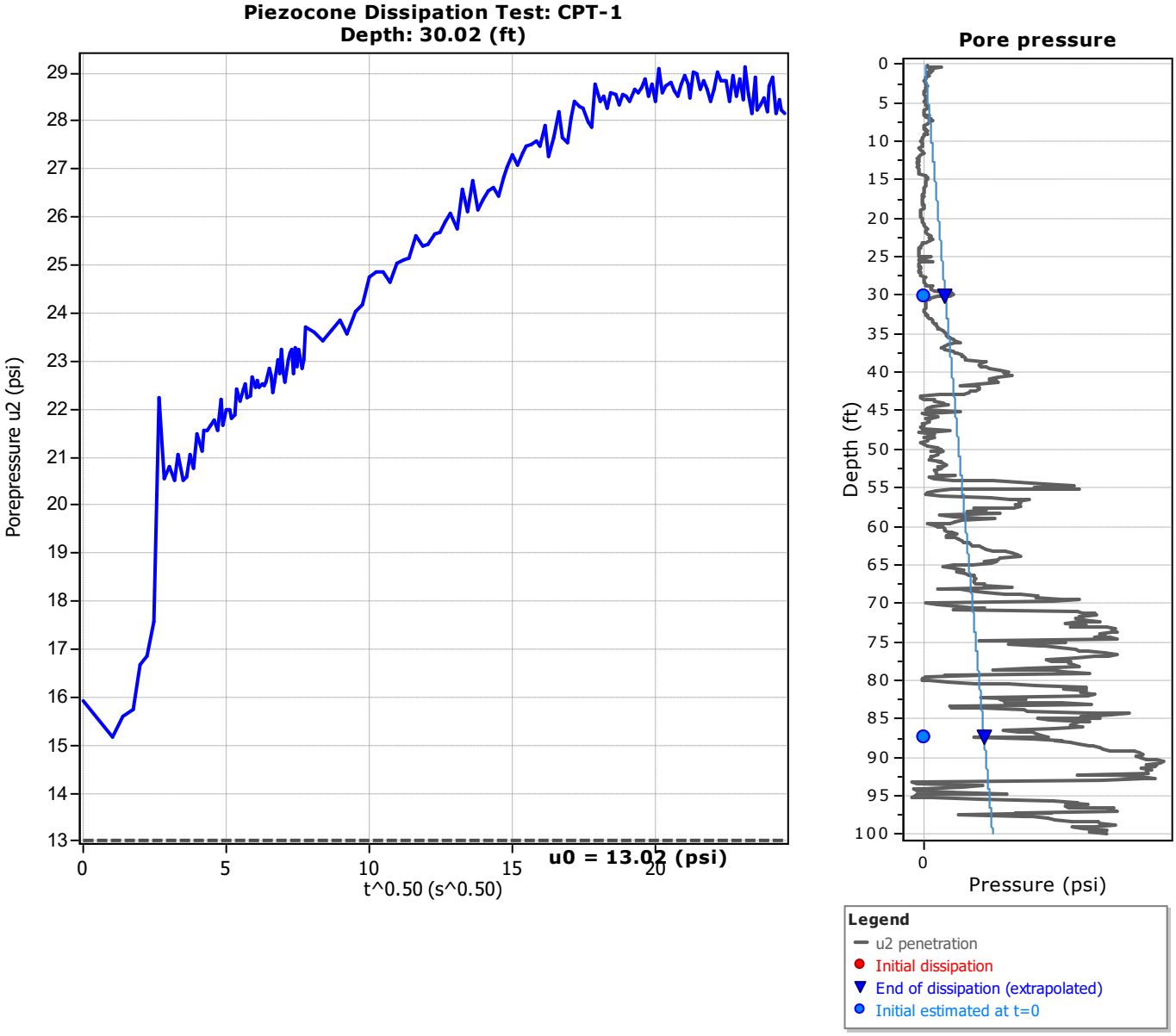
The dissipation of pore pressures during a CPTu dissipation test is controlled by the coefficient of consolidation in the horizontal direction (c_h) which is influenced by a combination of the soil permeability (k_h) and compressibility (M), as defined by the following:

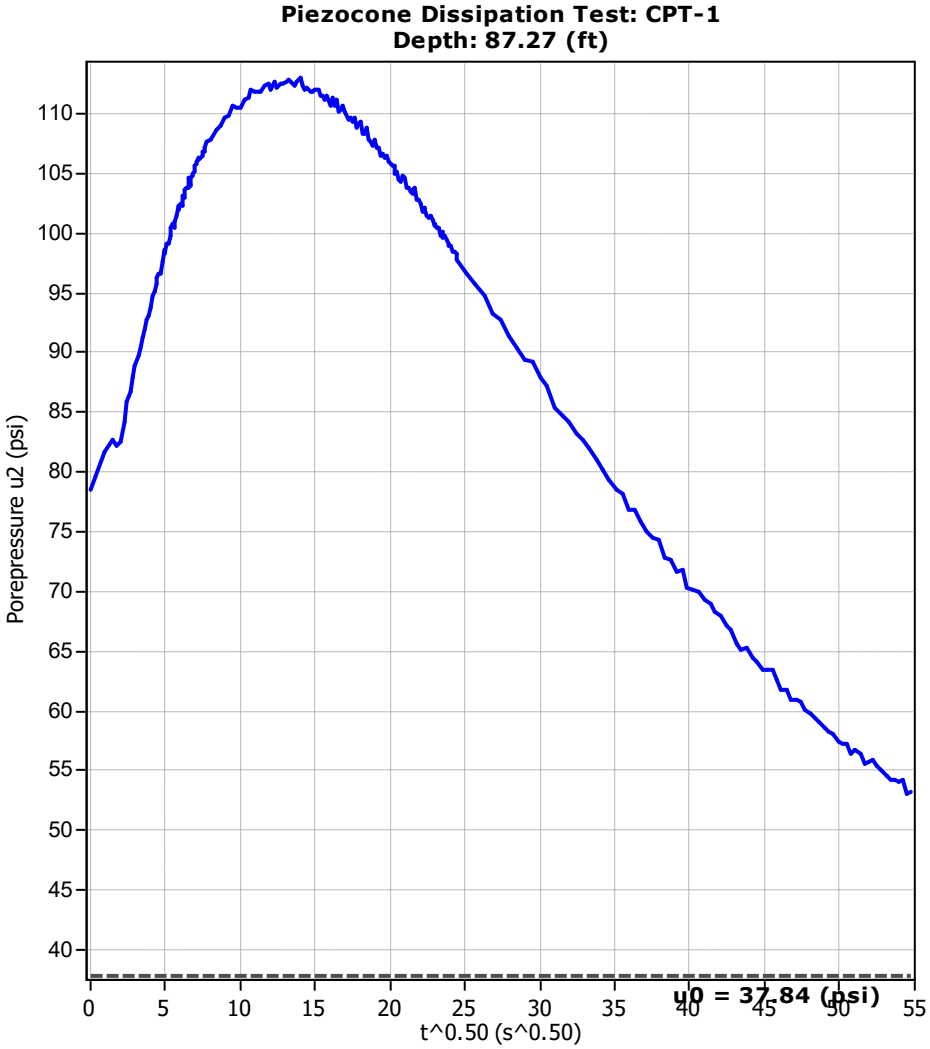
$$k_h = c_h \times \gamma_w / M$$

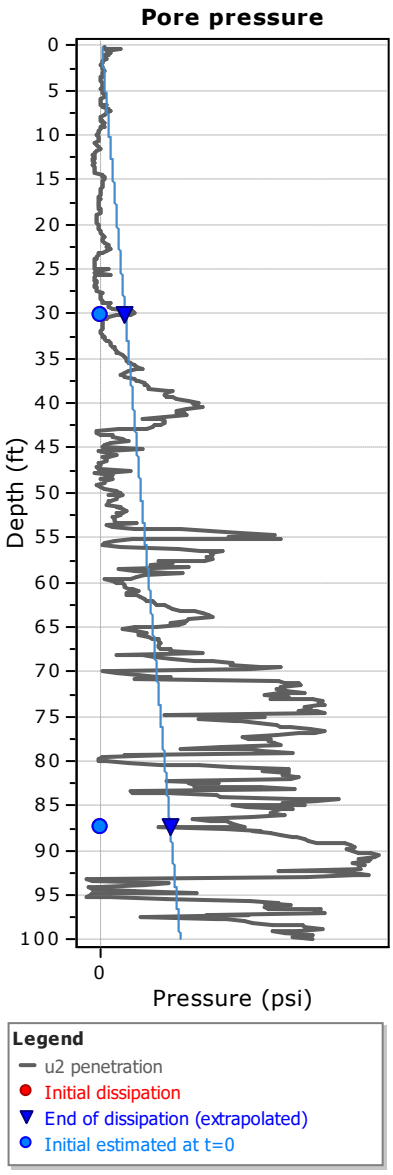
where: M is the 1-D constrained modulus and γ_w is the unit weight of water, in compatible units.

Tabular results

CPTU Borehole	Depth (ft)	$(t_{50})^{0.50}$	t_{50} (s)	t_{50} (years)	G/S_u	c_h (ft^2/s)	c_h (ft^2/year)	M (tsf)	k_h (ft/s)
CPT-1	30.02	0.0	0	0.00E+000	454775.75	0.00E+000	0	335.84	-1.00E+004
CPT-1	87.27	0.0	0	0.00E+000	901501.56	0.00E+000	0	86.43	-1.00E+004


Piezocone Dissipation Test: CPT-1
Depth: 30.02 (ft)
Porepressure u2 (psi)
t^0.50 (s^0.50)
u0 = 13.02 (psi)
Pore pressure
Depth (ft)
Pressure (psi)
Legend
u2 penetration
Initial dissipation
End of dissipation (extrapolated)
Initial estimated at t=0

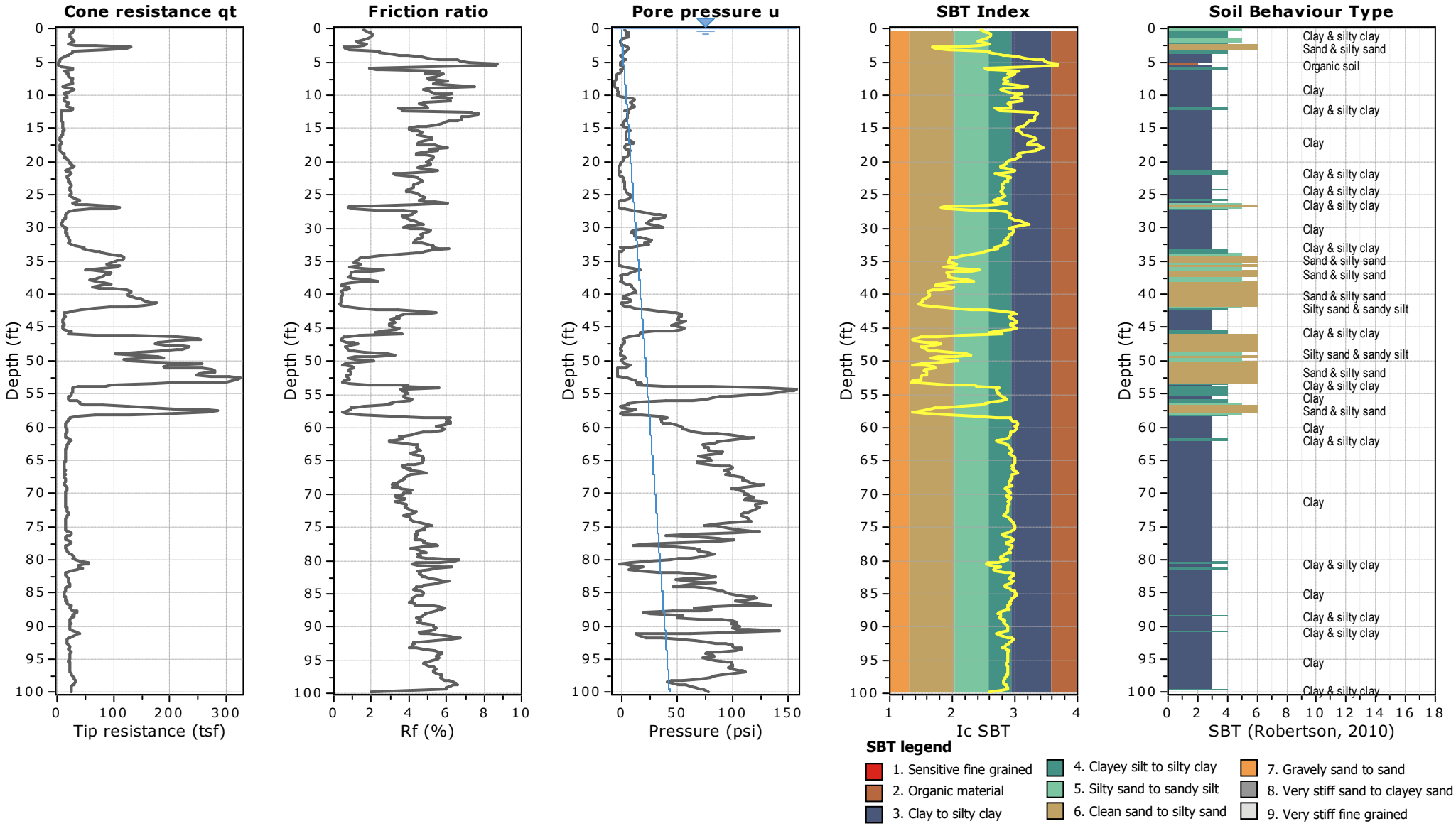

Piezocone Dissipation Test: CPT-1
Depth: 87.27 (ft)
Porepressure u2 (psi)
t^0.50 (s^0.50)
u0 = 37.84 (psi)


Pore pressure
Depth (ft)
Pressure (psi)
Legend
u2 penetration
Initial dissipation
End of dissipation (extrapolated)
Initial estimated at t=0

Geo-Ex Subsurface
Geotechnical - Environmental
Dixon, CA
http://www.geoexsubsurface.com

CPT: CPT-2
Total depth: 99.90 ft, Date: 10/4/2021
Surface Elevation: 0.00 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator:

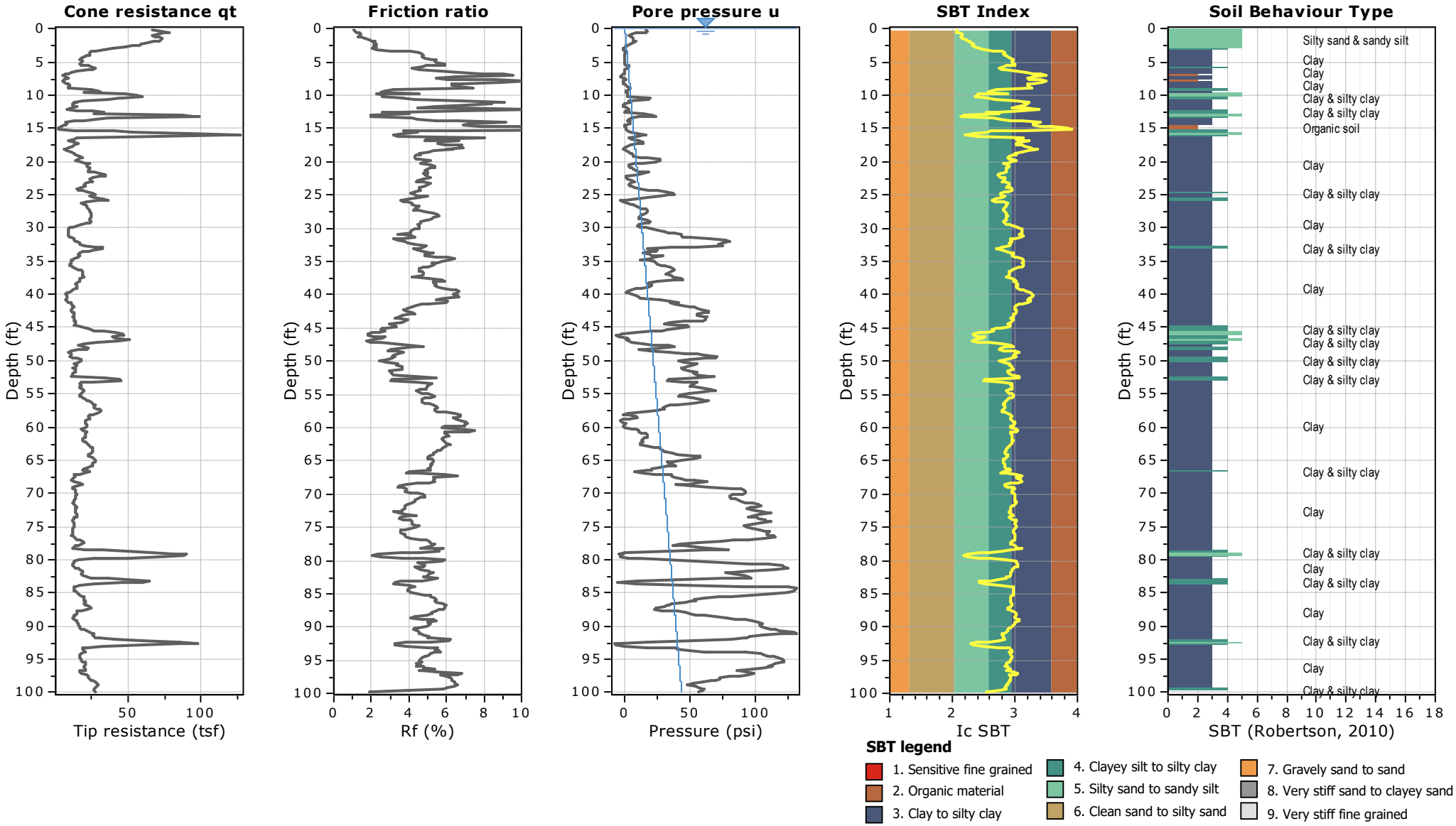
Project: **Parikh Shoreline**
Location: **Mountainview, CA**



Geo-Ex Subsurface
Geotechnical - Environmental
Dixon, CA
http://www.geoexsubsurface.com

CPT: CPT-3
Total depth: 99.90 ft, Date: 10/4/2021
Surface Elevation: 0.00 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator:

Project: **Parikh Shoreline**
Location: **Mountainview, CA**



LOGGED BY	BEGIN DATE	COMPLETION DATE	BOREHOLE LOCATION (Lat/Long or North/East and Datum)	HOLE ID
Mark McKee	**10-4-21**	**10-4-21**	**37° 25' 48.71" / -122° 5' 5.15"**	**GP-1**
DRILLING CONTRACTOR			BOREHOLE LOCATION (Offset, Station, Line)	SURFACE ELEVATION
Geo-Ex Subsurface Exploration				**14.0 ft**
DRILLING METHOD			DRILL RIG	BOREHOLE DIAMETER
Geoprobe			**Direct Push Rig**	
SAMPLER TYPE(S) AND SIZE(S) ID			SPT HAMMER TYPE	HAMMER EFFICIENCY, ERi
Direct push-pneumatic				
BOREHOLE BACKFILL AND COMPLETION			GROUNDWATER READINGS DURING DRILLING AFTER DRILLING (DATE)	TOTAL DEPTH OF BORING
Boring backfilled with cement grout				**30.0 ft**

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Depth	Sample Number	Blows per 6 in.	Blows per foot	Moisture Content (%)	Dry Unit Weight (pcf)	UC/UU in Shear. Str. (tsf)	Recovery (%)	RQD (%)	Drilling Method	Casing Depth	Remarks
	0		SANDY SILT (ML); light olive brown; dry; low plasticity fines; fine to medium SAND.		1A						67				
	1														
12.00	2		SANDY lean to fat CLAY (CL/CH); black; dry; medium to high plasticity fines; fine SAND (Fill).		1B										
	3		Grades light olive brown and black. No recovery (3.3 to 5.0 feet).		1C										
10.00	4														
	5		SANDY lean CLAY with GRAVEL (CL); very stiff; yellowish brown; brownish gray and black; moist; low to medium plasticity fines; fine SAND; subangular fine gravel (Fill).		2A			14			100				
8.00	6														
	7														
6.00	8				2B										
	9		SANDY lean to fat CLAY (CL/CH); very stiff; yellowish brown; moist; medium to high plasticity fines; fine to coarse SAND; subangular fine gravel (Native soil / Alluvium). PP=3.3 tsf.		2C										
					2D										
4.00	10		SANDY lean CLAY (CL); very stiff; yellowish brown to light olive brown and light gray; moist; medium plasticity fines; fine and few coarse SAND (Alluvium) (LL=39, PI=20).		3A			14			100				
	11				3B			20							CR, PI
2.00	12														
	13		PP=2.7 tsf. Grades with dark gray subrounded coarse SAND and fine gravel (13.2 - 15 feet).		3C			15							
0.00	14														
	15				4A			20			222				
			PP=2.2 tsf.												
-2.00	16		SANDY fat CLAY (CH); stiff to very stiff; black; moist; high plasticity fines; fine to coarse SAND; few subangular fine gravel (LL=50, PI=31). PP=2.0 tsf. PP=1.5 tsf. PP=1.8 tsf.		4B			25							PI
	17														
-4.00	18														
	19														
	20														

(continued)

LOG OF TEST BORING

PARIKH Practicing in the Geosciences

SHORELINE GOLF LINKS

MOUNTAIN VIEW, CALIFORNIA

Date: 10/26/2021 | Boring ID: GP-1 | Job No.: 2021-139-GEO

Plate: A-1A

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Depth	Sample Number	Blows per 6 in.	Blows per foot	Moisture Content (%)	Dry Unit Weight (pcf)	UC/UU in Shear. Str. (tsf)	Recovery (%)	RQD (%)	Drilling Method	Casing Depth	Remarks
	20		SANDY lean CLAY (CL); medium stiff to stiff; olive gray; wet; fine SAND; some clayey sand pockets.		5A			19			100				
	21		PP>0.8 tsf.												
-8.00	22														
	23		SANDY lean CLAY (CL); stiff; light olive brown and gray; moist; low plasticity fines; fine SAND; (LL=26, PI=11).		5B			20							PI
-10.00	24		PP=1.0 tsf.												
			SILTY SAND (SM); medium dense; gray to olive gray; wet; fine SAND; weakly cemented.		5C			17							
	25				6			22			130				
-12.00	26		Poorly graded SAND with SILT (SP-SM); loose to medium dense; wet; fine SAND; uncemented trace coarse SAND; (+#4 = 4.7%, -#200 = 9.3%).												PA
	27														
-14.00	28		Trace subangular fine gravel.												
	29														
-16.00	30		Bottom of borehole at 30.0 ft bgs/Elev. -16.0 ft												
	31		Groundwater depth 5.7 feet below ground surface based on hand-level measurement from adjacent lake												
-18.00	32		This Boring Record was developed in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (2010) except as noted on the Soil or Rock Legend or below.												
	33														
-20.00	34														
	35														
-22.00	36														
	37														
-24.00	38														
	39														
-26.00	40														
	41														
-28.00	42														
	43														
	44														

LOG OF TEST BORING

PARIKH Practicing in the Geosciences

SHORELINE GOLF LINKS

MOUNTAIN VIEW, CALIFORNIA

Date: 10/26/2021 | Boring ID: GP-1 | Job No.: 2021-139-GEO

This log is part of the report prepared by Parikh Consultants, Inc. for the named project and should be read together with that report for complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

Plate: A-1B

PCI-CT 5 BR 2021-139-GEO.GPJ TEMPLATE 7-22-11.GDT 11/2/21

LOGGED BY	BEGIN DATE	COMPLETION DATE	BOREHOLE LOCATION (Lat/Long or North/East and Datum)	HOLE ID
Mark McKee	**10-5-21**	**10-5-21**	**37° 25' 51.61" / -122° 4' 54.18"**	**GP-2**
DRILLING CONTRACTOR			BOREHOLE LOCATION (Offset, Station, Line)	SURFACE ELEVATION
Geo-Ex Subsurface Exploration				**11.0 ft**
DRILLING METHOD			DRILL RIG	BOREHOLE DIAMETER
Geoprobe			**Direct Push Rig**	
SAMPLER TYPE(S) AND SIZE(S) ID			SPT HAMMER TYPE	HAMMER EFFICIENCY, ERi
Direct push-pneumatic				
BOREHOLE BACKFILL AND COMPLETION			GROUNDWATER READINGS DURING DRILLING AFTER DRILLING (DATE)	TOTAL DEPTH OF BORING
Boring backfilled with cement grout				**30.0 ft**

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Depth	Sample Number	Blows per 6 in.	Blows per foot	Moisture Content (%)	Dry Unit Weight (pcf)	UC/UU in Shear. Str. (tsf)	Recovery (%)	RQD (%)	Drilling Method	Casing Depth	Remarks
	0		SANDY SILT (ML); brown; moist; fine to coarse SAND; trace angular fine gravel (Fill).		1 1A						61				
	1		SANDY fat CLAY (CH); black; moist; high plasticity fines; fine SAND; few coarse SAND (Fill).		1B 1C			14							
9.00	2		SANDY SILT (ML); brownish gray; moist; low plasticity fines; fine SAND.		1D			38							
	3		No recovery (3.0-5.0 feet).												
7.00	4		Grades fiberous, trace paper; plastic and wood (2.2-3.0 feet) (Fill).												
	5				2			81			35				
5.00	6		Lean CLAY with SAND (CL); stiff; dark greenish gray; wet; low plasticity fines; fine SAND; trace subangular fine gravel (Fill) (LL=32, PI=12). PP=1.2 tsf.		2A 2B			20							PI
	7		No recovery (6.7-10.0 feet).												
3.00	8														
	9														
1.00	10		PEAT (PT); black; moist; fiberous; sandy lean organic clay; paper; glass; wood debris (Fill).		3			47			72				
	11														
-1.00	12														
	13		More black organic clay (13.0-13.6 feet).												
-3.00	14														
	15		SANDY lean CLAY (CL); very stiff; moist; medium plasticity fines; fine to medium SAND (Native soil) (LL=36, PI=20). PP=2.5 tsf.		4A			24			93				CR, PI
-5.00	16														
	17														
-7.00	18		Stiff; gray; wet; low plasticity fines; fine SAND; trace subangular fine gravel. PP=1.0 tsf.		4B			28							
	19														
	20														

(continued)

LOG OF TEST BORING

PARIKH Practicing in the Geosciences

SHORELINE GOLF LINKS

MOUNTAIN VIEW, CALIFORNIA

Date: 10/26/2021 | Boring ID: GP-2 | Job No.: 2021-139-GEO

This log is part of the report prepared by Parikh Consultants, Inc. for the named project and should be read together with that report for complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

Plate: A-2A

PCI-CT 5 BR 2021-139-GEO.GPJ TEMPLATE 7-22-11.GDT 11/2/21

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Depth	Sample Number	Blows per 6 in.	Blows per foot	Moisture Content (%)	Dry Unit Weight (pcf)	UC/UU in Shear. Str. (tsf)	Recovery (%)	RQD (%)	Drilling Method	Casing Depth	Remarks
	20		No recovery (19.8-20.0 feet).		5A			27			100				PI
	21		SANDY lean CLAY (CL); very stiff; moist; medium plasticity fines; fine to medium SAND (Native soil) (LL=36, PI=20). *layer description continued from previous page*												
-11.00	22		Gray to light olive brown; moist; medium plasticity fines; fine SAND; trace subangular fine gravel; (LL=48, PI=24).												
	23		SANDY lean CLAY (CL) *(continued)*. PP=1.7 tsf. PP=2.7 tsf.		5B			25							
-13.00	24		Lean CLAY (CL); stiff to very stiff; gray to olive gray; moist; low to medium plasticity fines; trace fine SAND. PP=1.4 tsf. PP=2.3 tsf.												
	25				6A			19			73				
-15.00	26		PP=2.5 tsf.												
	27		Stiff; PP=1.6 tsf.												
-17.00	28		CLAYEY SAND (SC); yellowish brown; moist; (+#4 = 3.9%, -#200 = 21.3%).		6B			12							PA
	29		No recovery (28.7-30.0 feet).												
-19.00	30		Bottom of borehole at 30.0 ft bgs/Elev. -19.0 ft												
	31		Groundwater not encountered during sampling (wet below ~ 5 feet)												
-21.00	32		This Boring Record was developed in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (2010) except as noted on the Soil or Rock Legend or below.												
	33														
-23.00	34														
	35														
-25.00	36														
	37														
-27.00	38														
	39														
-29.00	40														
	41														
-31.00	42														
	43														
	44														

LOG OF TEST BORING

PARIKH Practicing in the Geosciences

SHORELINE GOLF LINKS

MOUNTAIN VIEW, CALIFORNIA

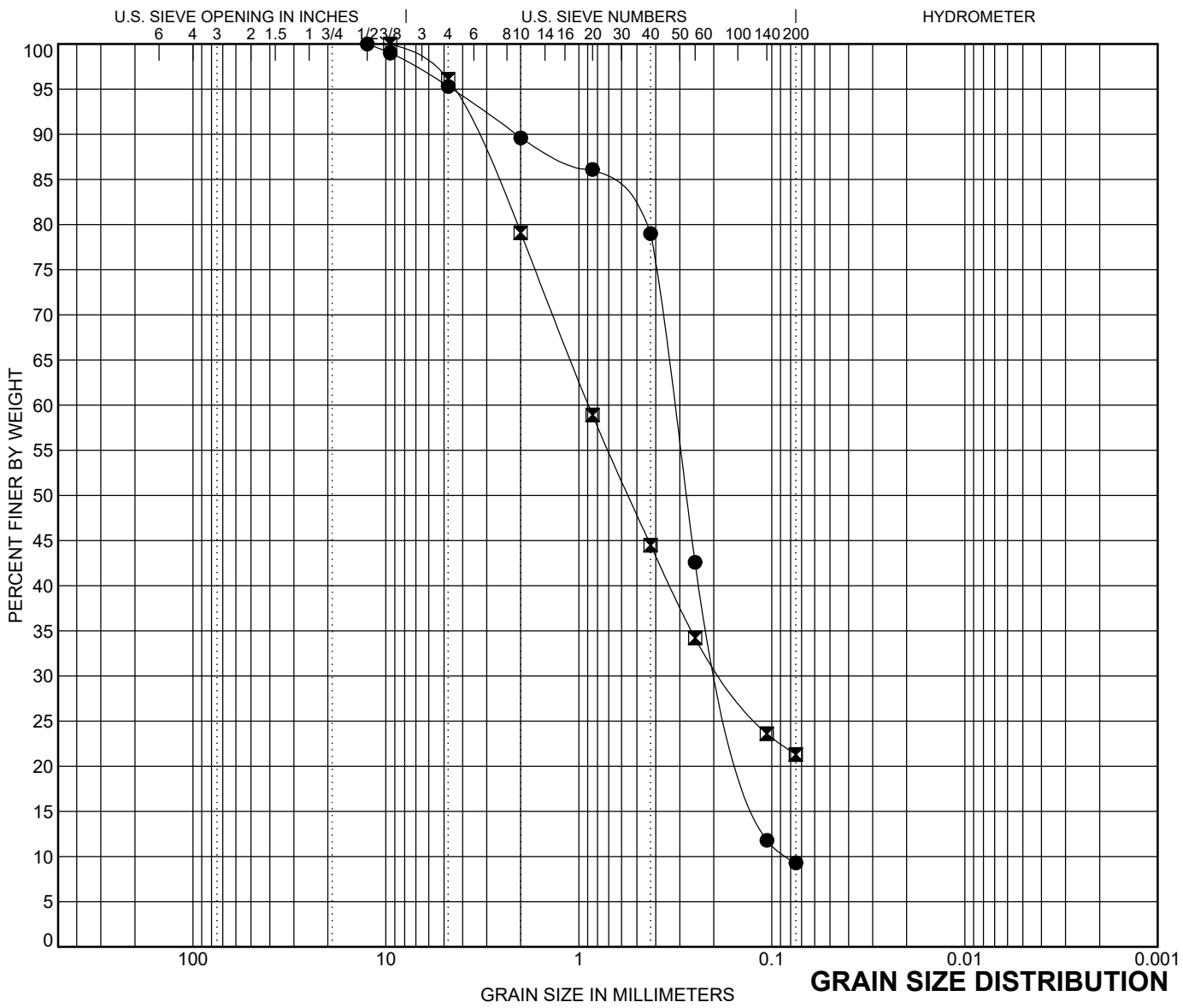
Date: 10/26/2021 | Boring ID: GP-2 | Job No.: 2021-139-GEO

This log is part of the report prepared by Parikh Consultants, Inc. for the named project and should be read together with that report for complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

Plate: A-2B

PCI-CT 5 BR 2021-139-GEO.GPJ TEMPLATE 7-22-11.GDT 11/2/21

Borehole	Sample Number	Depth	Classi-fication	Water Content	Dry Density	Liquid Limit	Plastic Limit	Plasticity Index	% > Sieve 4	% < Sieve 200	Shear Strength (tsf)
GP-1	1A	0.0	ML	-	-						
GP-1	1B	1.9	CL/CH	-	-						
GP-1	1C	3.0	CL/CH	-	-						
GP-1	2A	5.0	CL	14.2	-						
GP-1	2B	7.5	CL	-	-						
GP-1	2C	8.5	CL/CH	-	-						
GP-1	2D	9.5	CL/CH	-	-						
GP-1	3A	10.0	CL	14.3	-						
GP-1	3B	10.3	CL	20.2	-	39	19	20			
GP-1	3C	13.2	CL	15.0	-						
GP-1	4A	15.2	CL	20.1	-						
GP-1	4B	16.0	CH	24.6	-	50	19	31			
GP-1	5A	20.0	CL	19.5	-						
GP-1	5B	23.0	CL	19.7	-	26	15	11			
GP-1	5C	24.5	SM	16.5	-						
GP-1	6	25.0	SM	22.1	-						
GP-1		26.0	SM	-	-				4.7	9.3	
GP-2	1	0.0	ML	-	-						
GP-2	1A	0.1	ML	-	-						
GP-2	1B	0.9	CH	-	-						
GP-2	1C	1.2	ML	14.4	-						
GP-2	1D	2.2	ML	37.6	-						
GP-2	2	5.0	ML	-	-						
GP-2	2A	5.1	ML	81.1	-						
GP-2	2B	5.5	CL	19.9	-	32	20	12			
GP-2	3	10.0	-	46.6	-						
GP-2	4A	15.0	CL	23.9	-	36	16	20			
GP-2	4B	18.0	CL	27.7	-						
GP-2	5A	20.0	CL	27.1	-	48	24	24			
GP-2	5B	23.0	CL	24.9	-						
GP-2	6A	25.0	CL	18.9	-						
GP-2	6B	28.0	SC	12.3	-				3.9	21.3	



GRAIN SIZE DISTRIBUTION

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

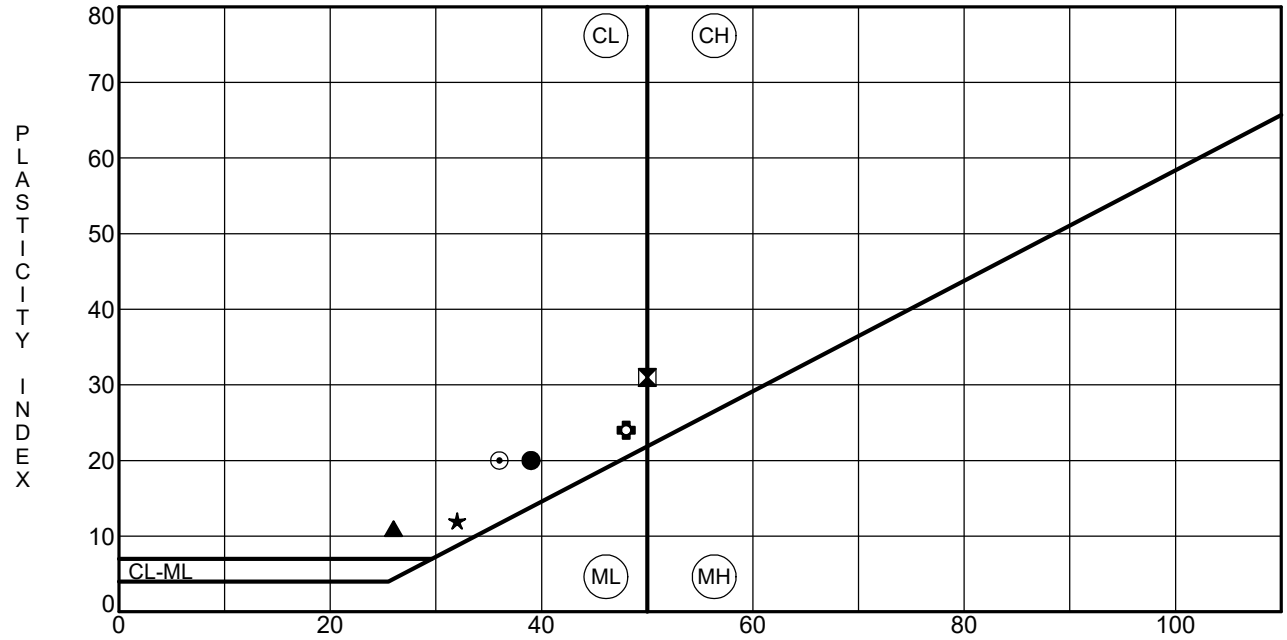
	BORING	SAMPLE #	DEPTH	Classification	LL	PL	PI	Cc	Cu
●	GP-1		26.0	Poorly graded SAND with SILT				1.16	3.90
⊠	GP-2	6B	28.0	CLAYEY SAND					

	BORING	SAMPLE #	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	GP-1		26.0	12.5	0.322	0.176	0.083	4.7	86.0	9.3	
⊠	GP-2	6B	28.0	9.5	0.891	0.178		3.9	74.8	21.3	

PARIKH
Practicing in the Geosciences

SHORELINE GOLF LINKS
MOUNTAIN VIEW, CALIFORNIA

JOB NO: 2021-139-GEO | **PLATE NO: B-3**



PLASTICITY

	BOREHOLE	SAMPLE #	DEPTH	LL	PL	PI	Fines	Classification
●	GP-1	3B	10.3	39	19	20		SANDY lean CLAY
⊠	GP-1	4B	16.0	50	19	31		SANDY fat CLAY
▲	GP-1	5B	23.0	26	15	11		SANDY lean CLAY
★	GP-2	2B	5.5	32	20	12		Lean CLAY with SAND
⊙	GP-2	4A	15.0	36	16	20		SANDY lean CLAY
✿	GP-2	5A	20.0	48	24	24		SANDY lean CLAY

PARIKH
Practicing in the Geosciences

SHORELINE GOLF LINKS

MOUNTAIN VIEW, CALIFORNIA

JOB NO: 2021-139-GEO | **PLATE NO: B-2**

Sunland Analytical

11419 Sunrise Gold Circle, #10
Rancho Cordova, CA 95742
(916) 852-8557

Date Reported 06/22/2022
Date Submitted 06/15/2022

To: Do Nguyen
Parikh Consultants, Inc.
1497 N.Milpitas Blvd
Milpitas, CA 95035

From: Gene Oliphant, Ph.D. \ Randy Horney
General Manager \ Lab Manager

The reported analysis was requested for the following location:
Location : 2021-139-GEO SHORE. Site ID : GP-1 @ 0-5.
Thank you for your business.

* For future reference to this analysis please use SUN # 87586-182166.

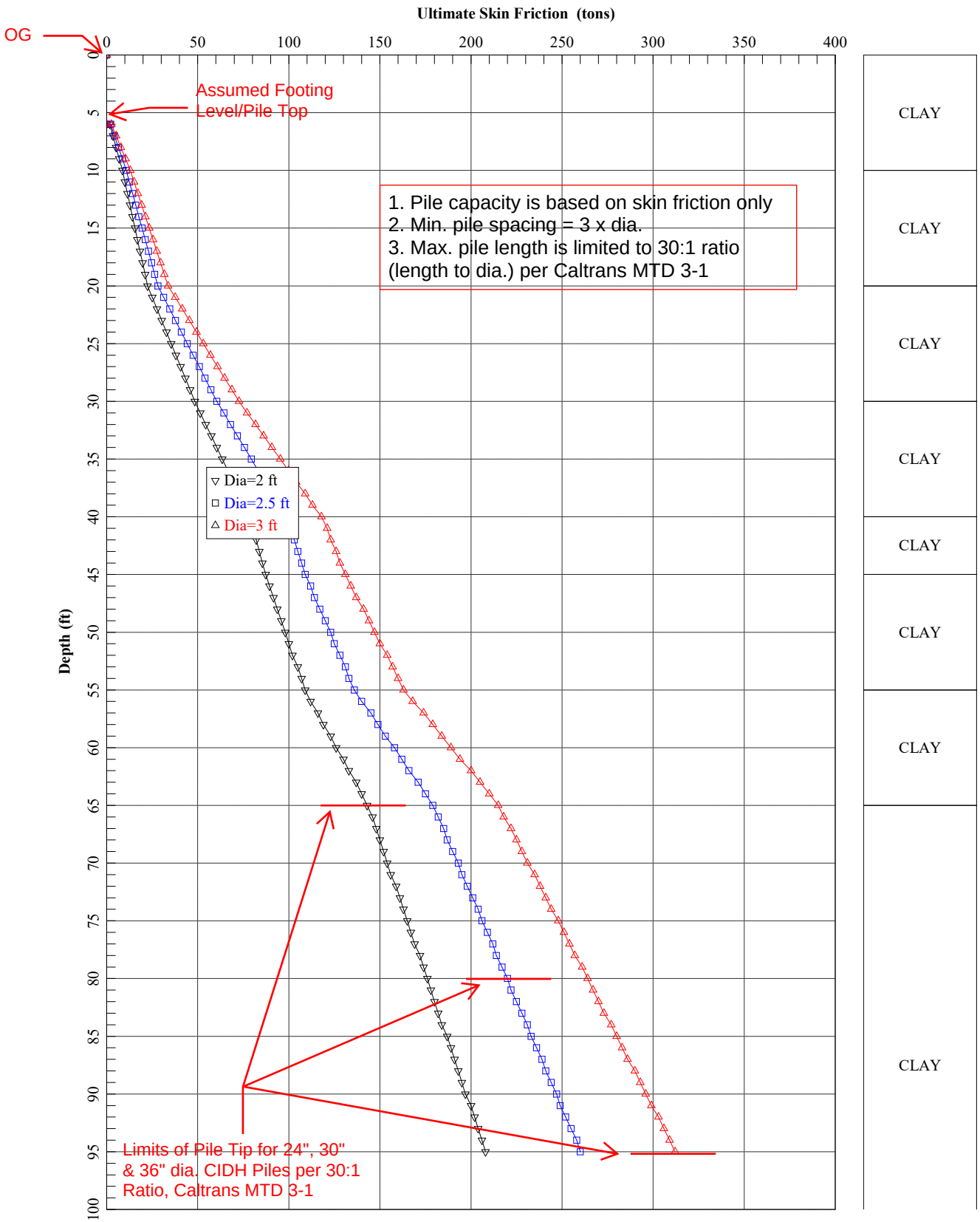
EVALUATION FOR SOIL CORROSION

Soil pH	7.59	
Minimum Resistivity	0.83 ohm-cm (x1000)	
Chloride	137.8 ppm	00.01378 %
Sulfate	98.0 ppm	00.00980 %

METHODS
pH and Min.Resistivity CA DOT Test #643
Sulfate CA DOT Test #417, Chloride CA DOT Test #422m

APPENDIX III

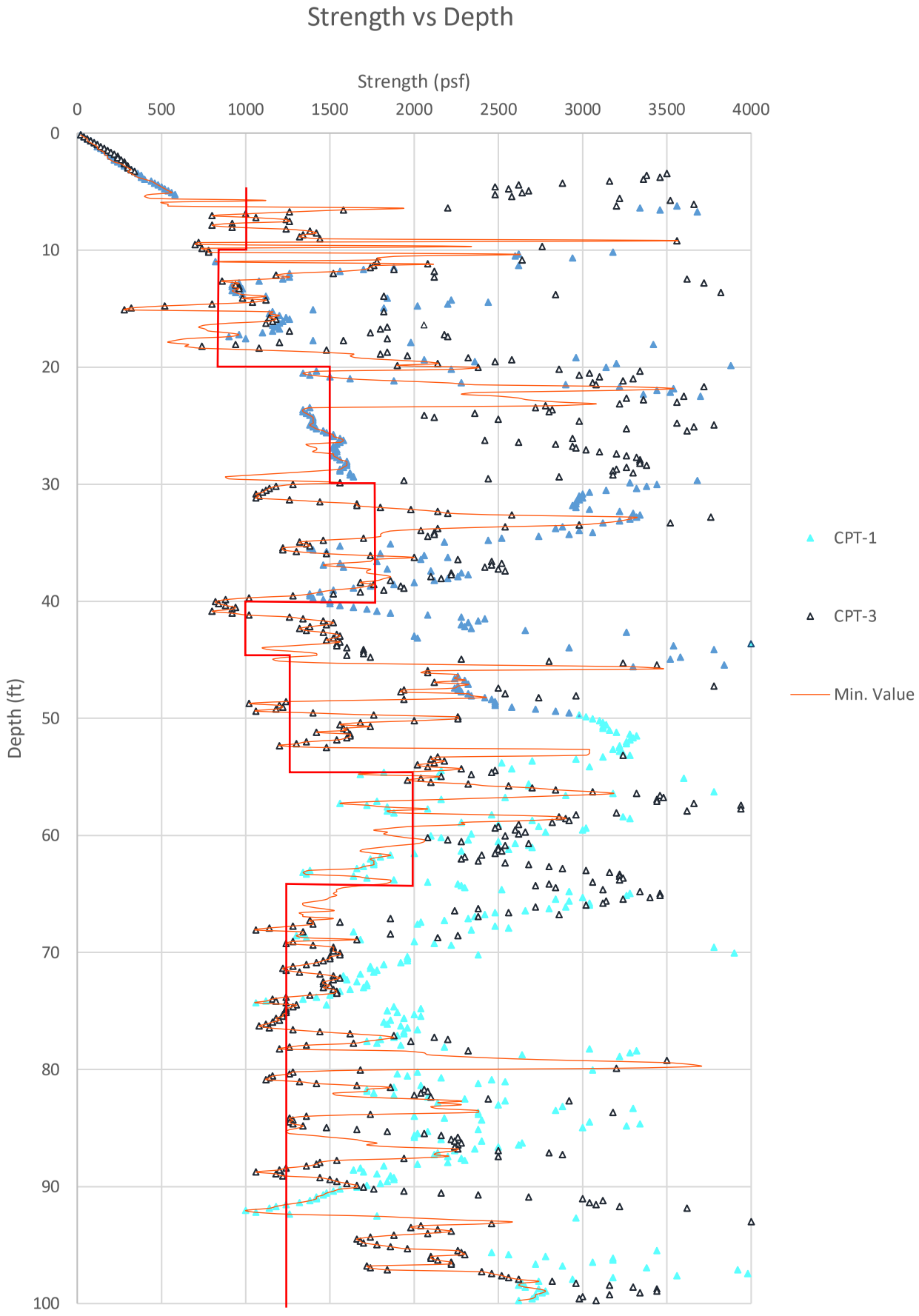
Appendix III-a



Bridge No. 25, CIDH Pile Option (24", 30" & 36" dia.)

Bridge No. 25 Replacement
Shoreline Golf Links, Mountain View

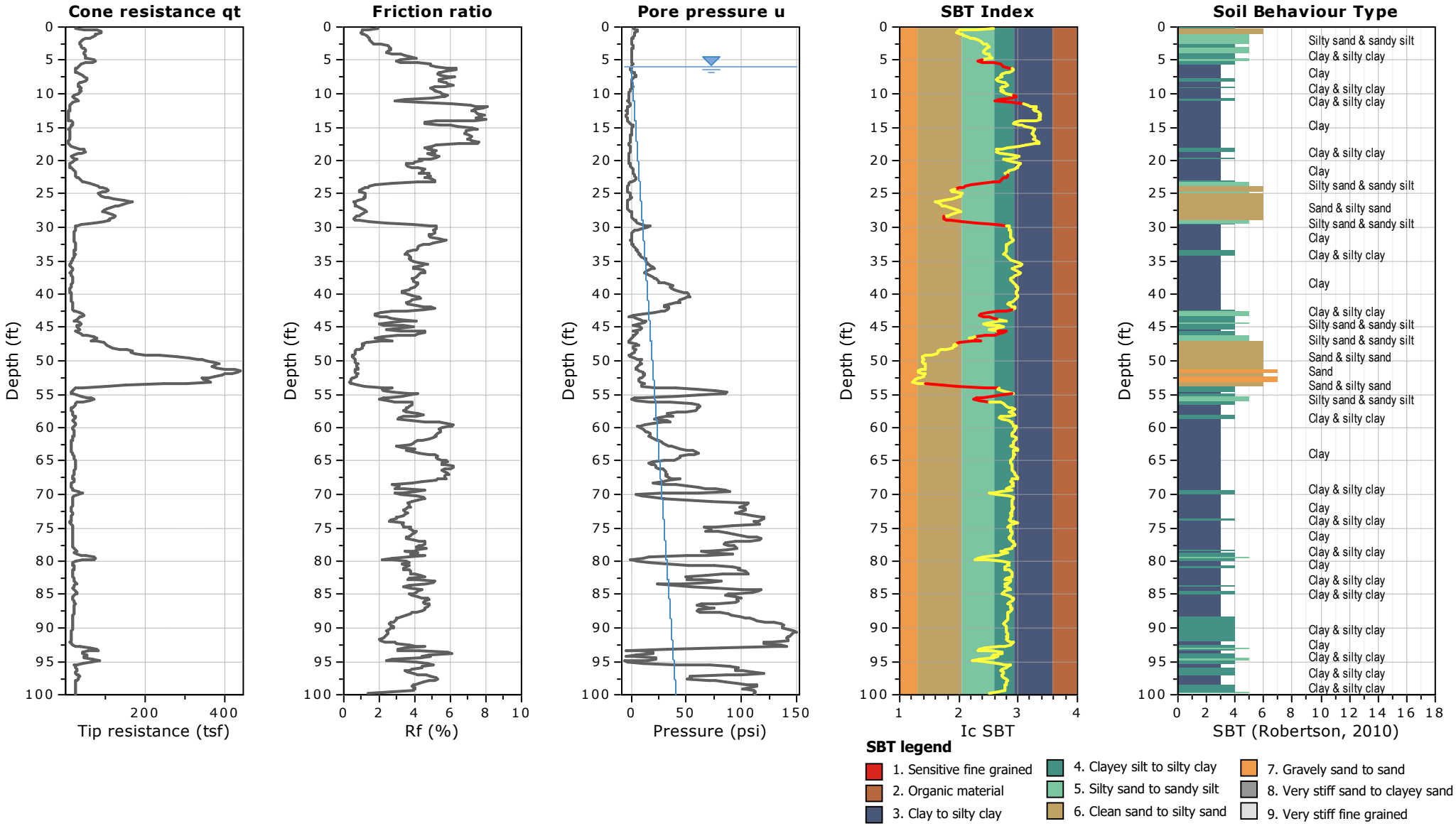
Appendix III-b



Bridge No. 25 Replacement
Shoreline Golf Links, Mountain View

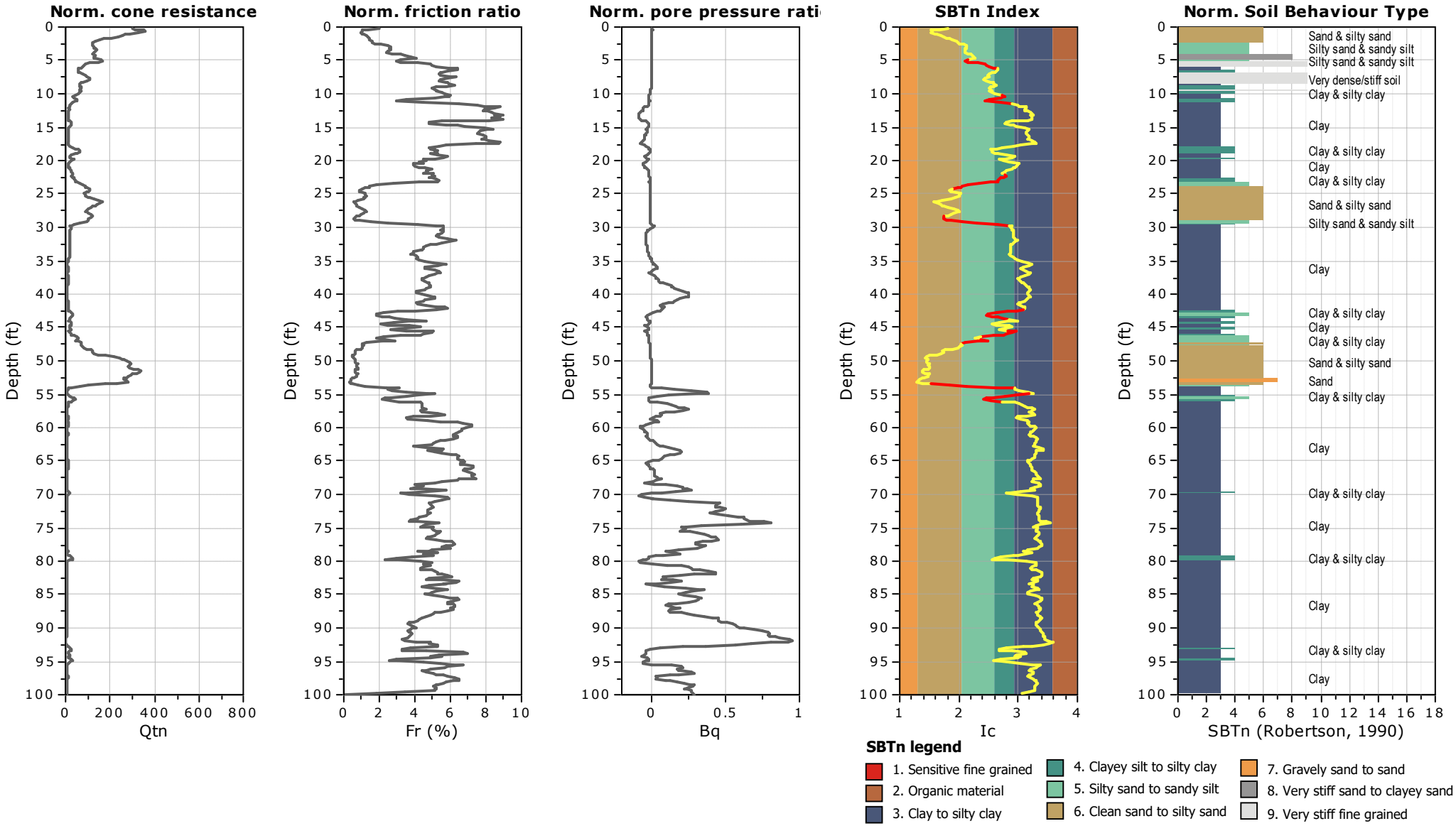
Project: SHORELINE GOLF LINKS
Location: MOUNTAIN VIEW

CPT: CPT-1
Total depth: 99.90 ft, Date: 11/2/2021
Surface Elevation: 14.00 ft
Cone Type: Uknown
Cone Operator: Uknown



Project: SHORELINE GOLF LINKS
Location: MOUNTAIN VIEW

CPT: CPT-1
Total depth: 99.90 ft, Date: 11/2/2021
Surface Elevation: 14.00 ft
Cone Type: Uknown
Cone Operator: Uknown



CPT: CPT-1

Total depth: 99.90 ft, Date: 11/2/2021

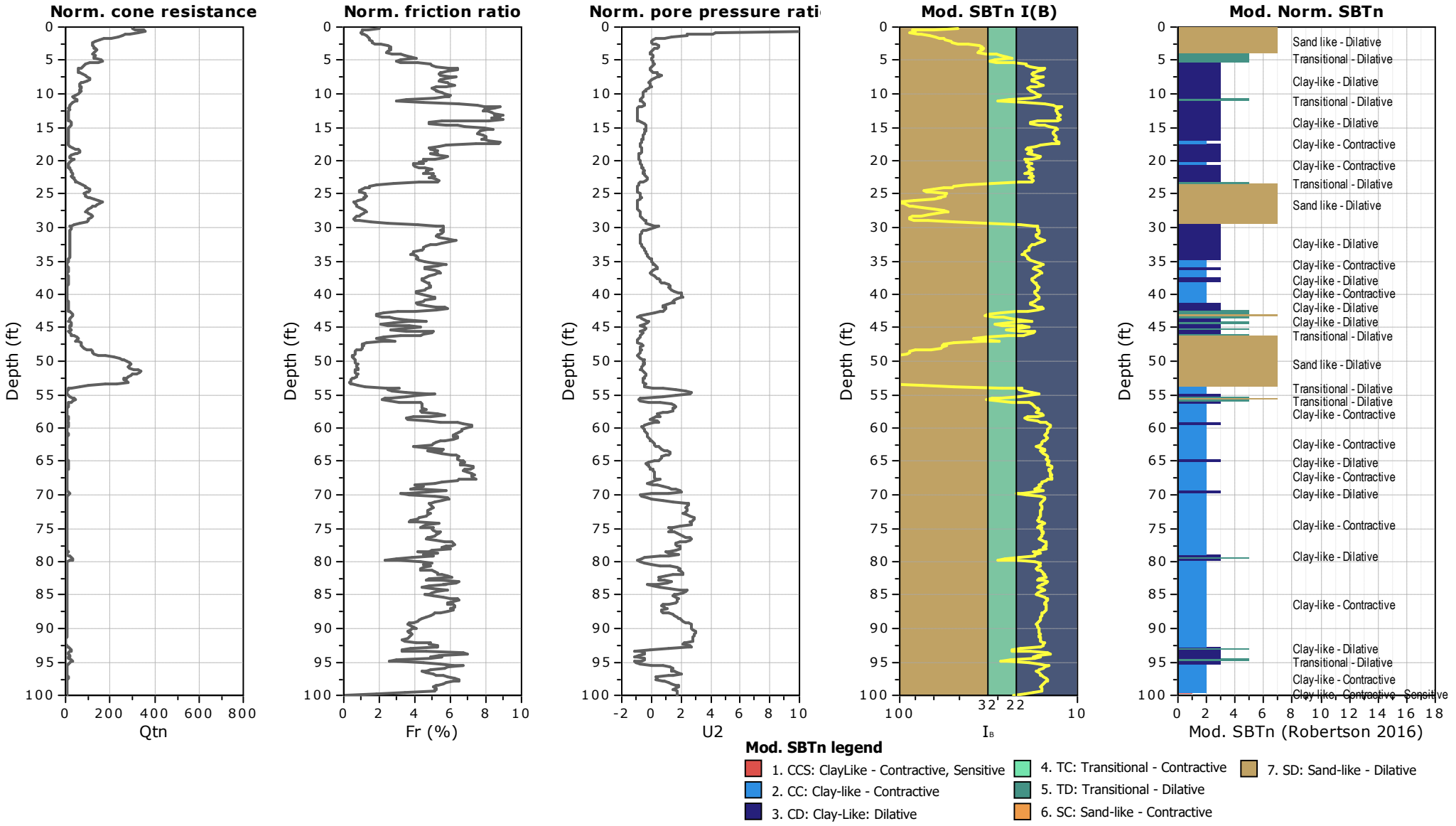
Surface Elevation: 14.00 ft

Cone Type: Uknown

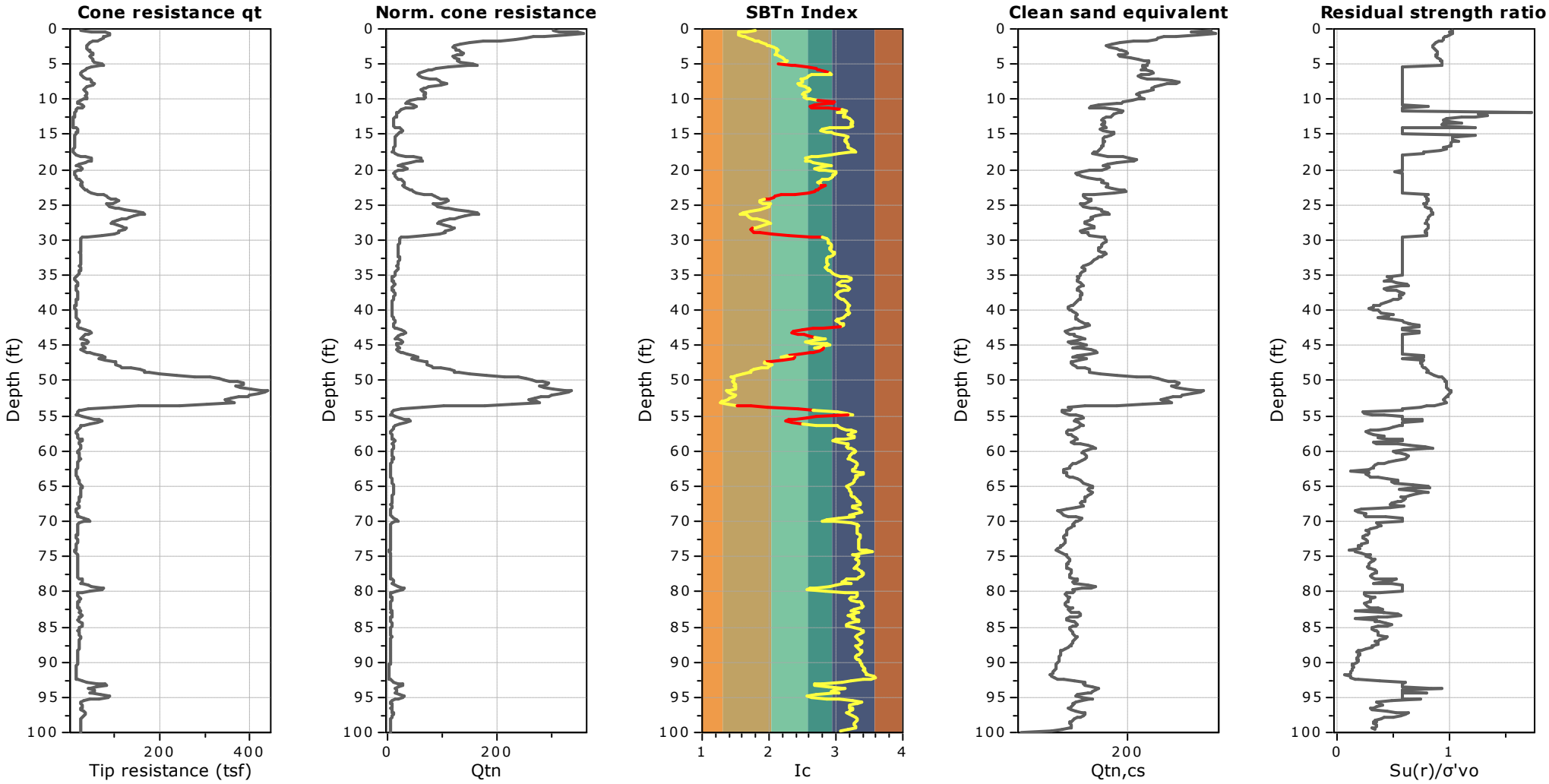
Cone Operator: Uknown

Project: SHORELINE GOLF LINKS

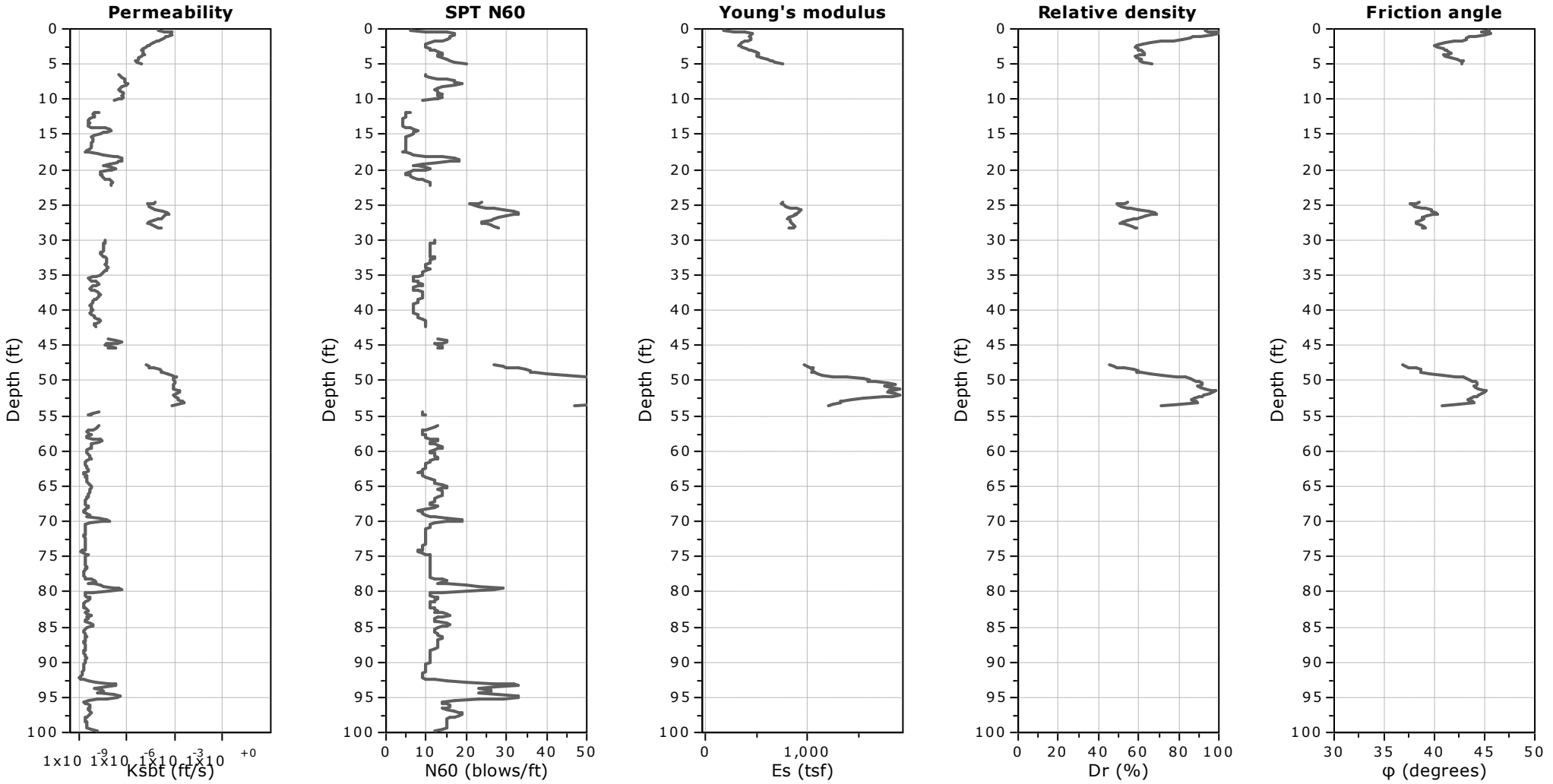
Location: MOUNTAIN VIEW



CPT: CPT-1
Total depth: 99.90 ft, Date: 11/2/2021
Surface Elevation: 14.00 ft
Cone Type: Uknown
Cone Operator: Uknown



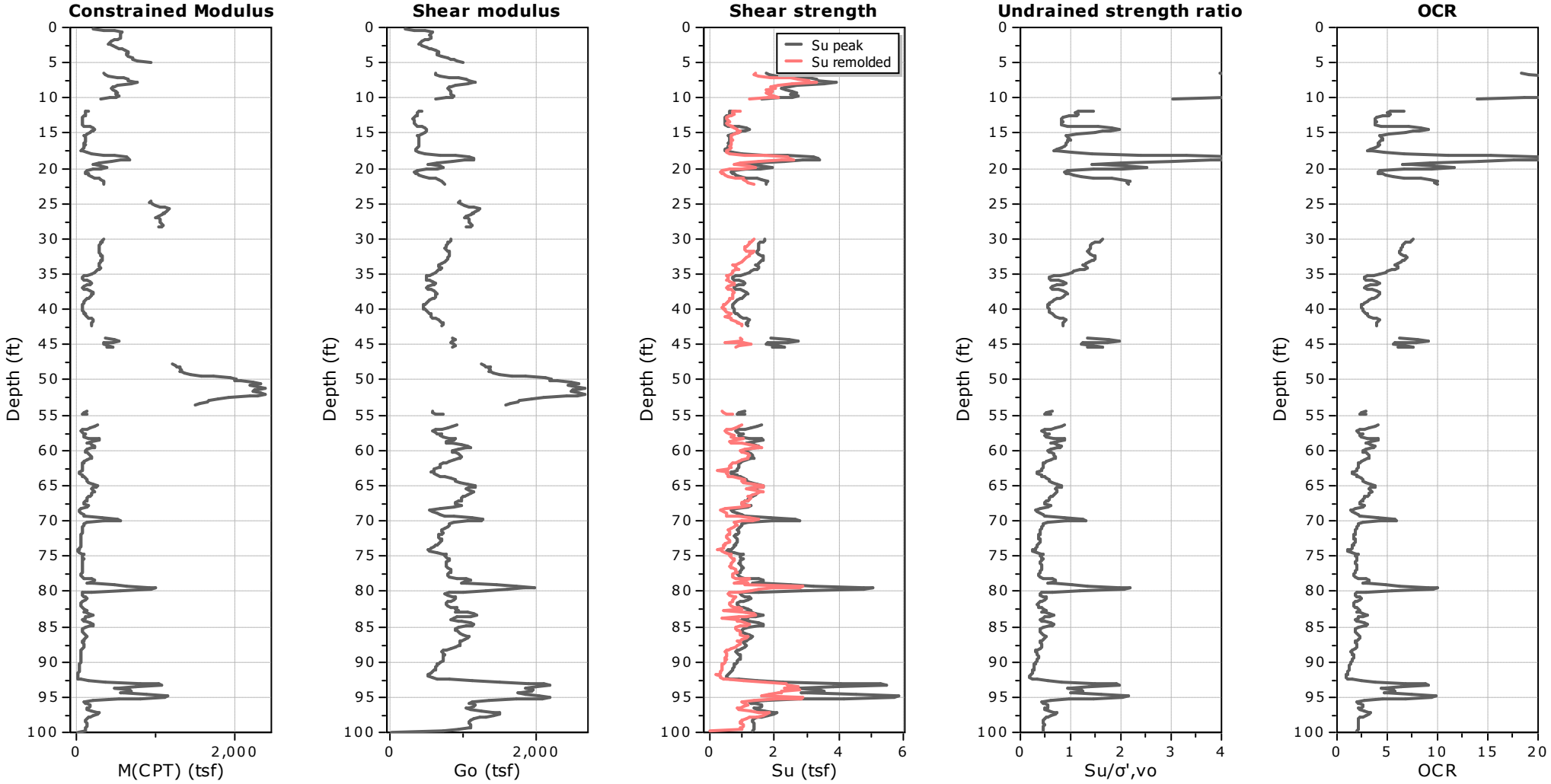
Project: **SHORELINE GOLF LINKS**
Location: **MOUNTAIN VIEW**



Calculation parameters

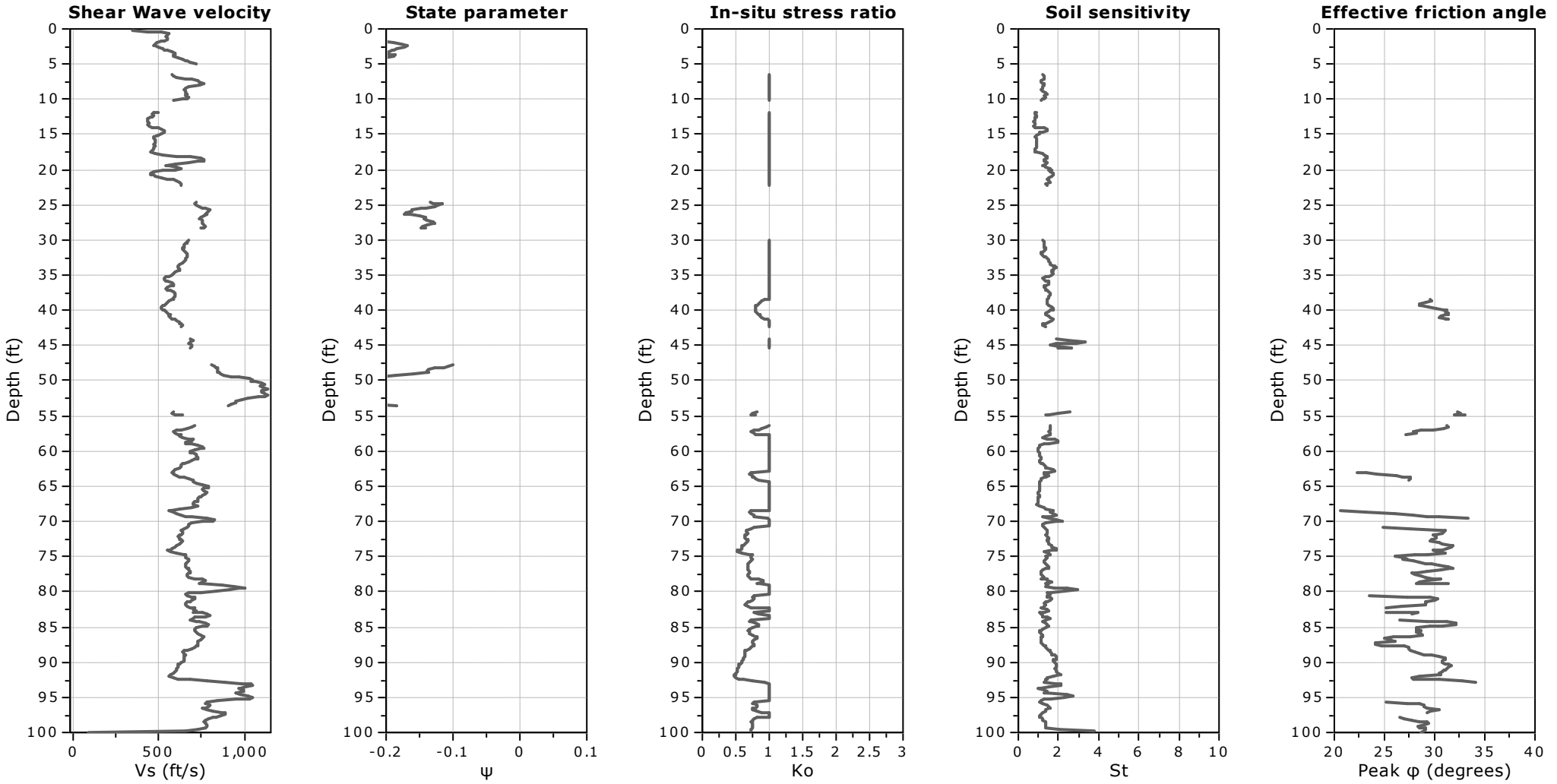
Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)

Project: **SHORELINE GOLF LINKS**
Location: **MOUNTAIN VIEW**



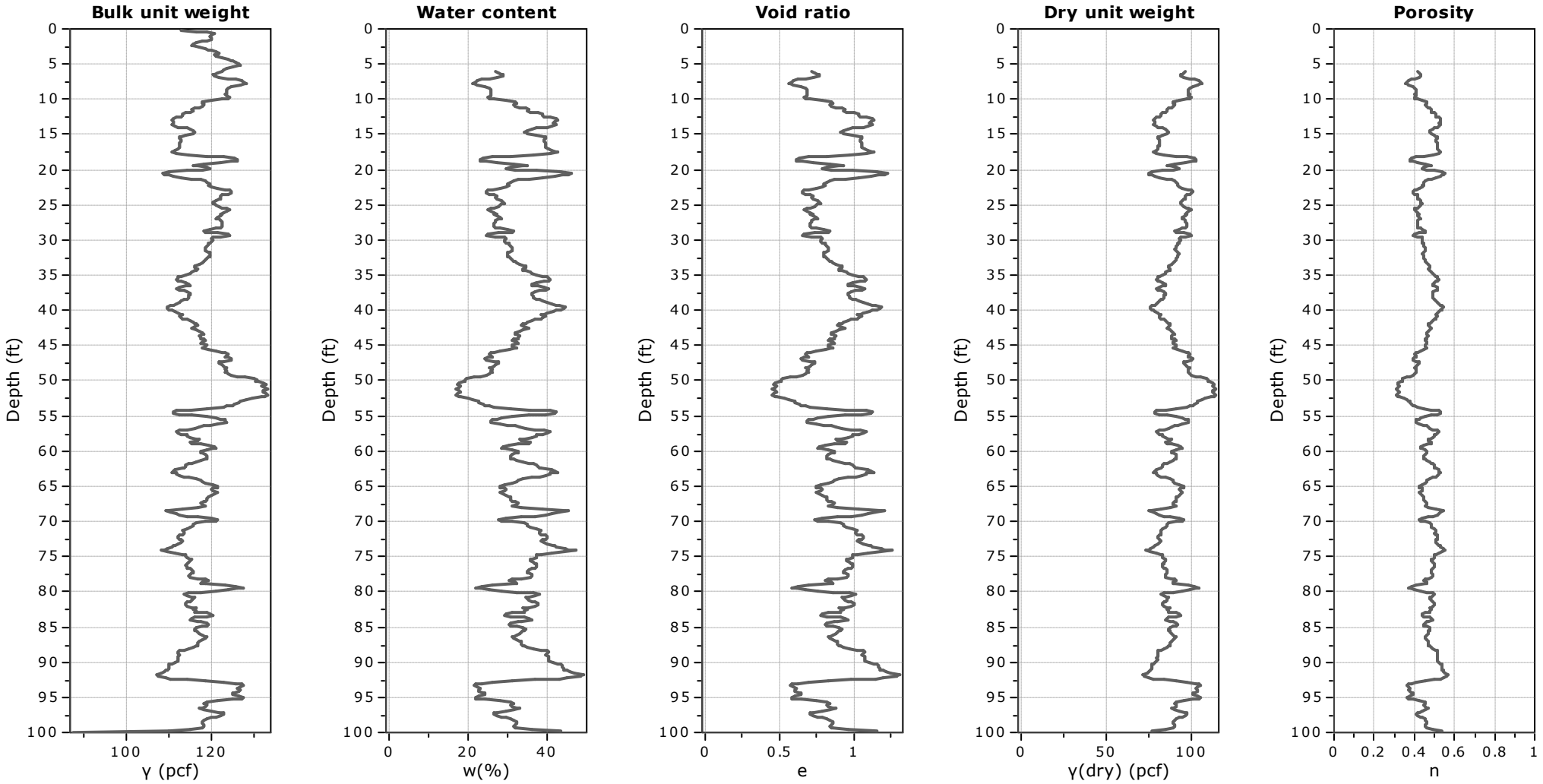
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 14
OCR factor for clays, N_{kt}: 0.33
Flat Dilatometer Test data

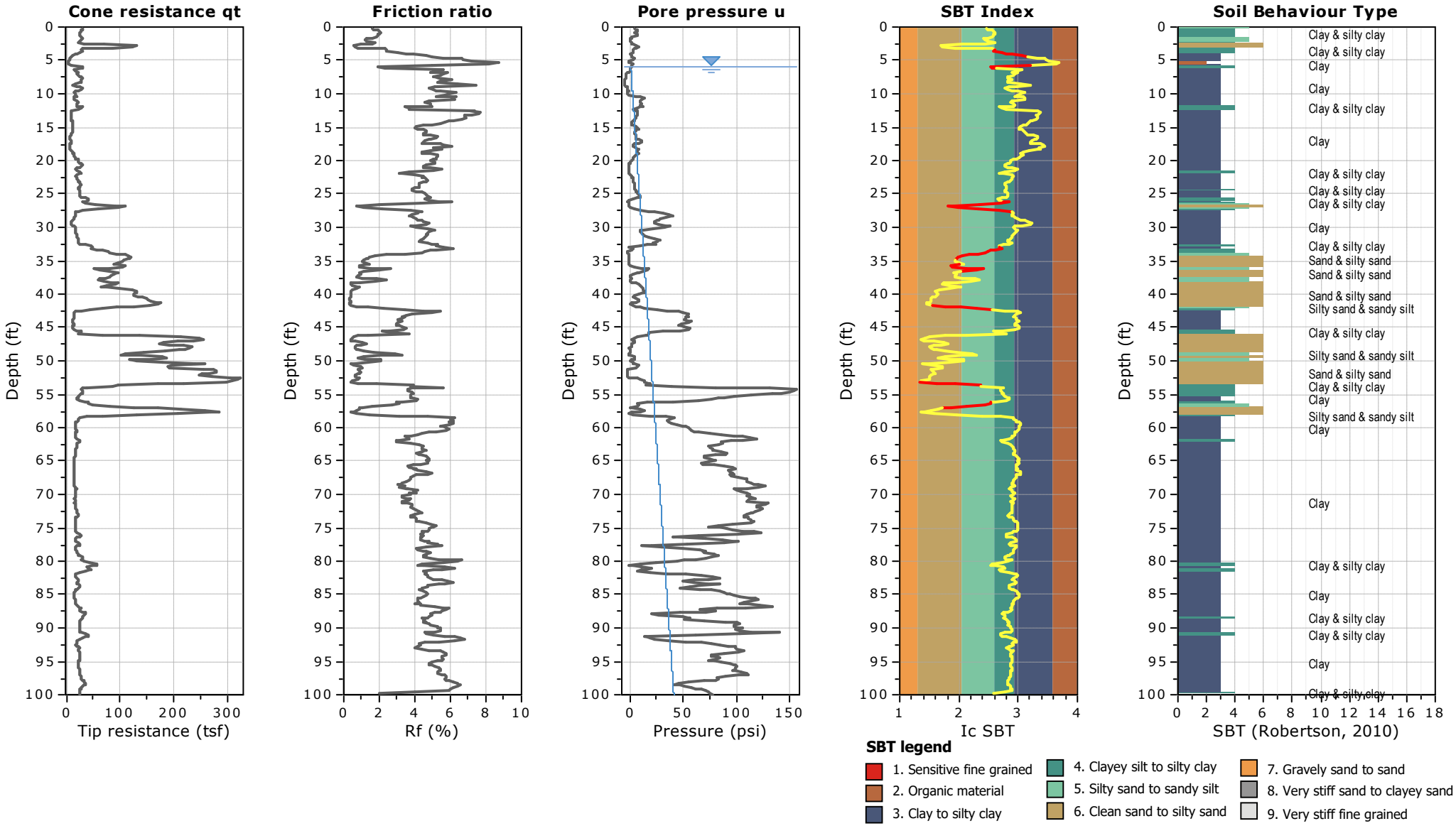


Calculation parameters

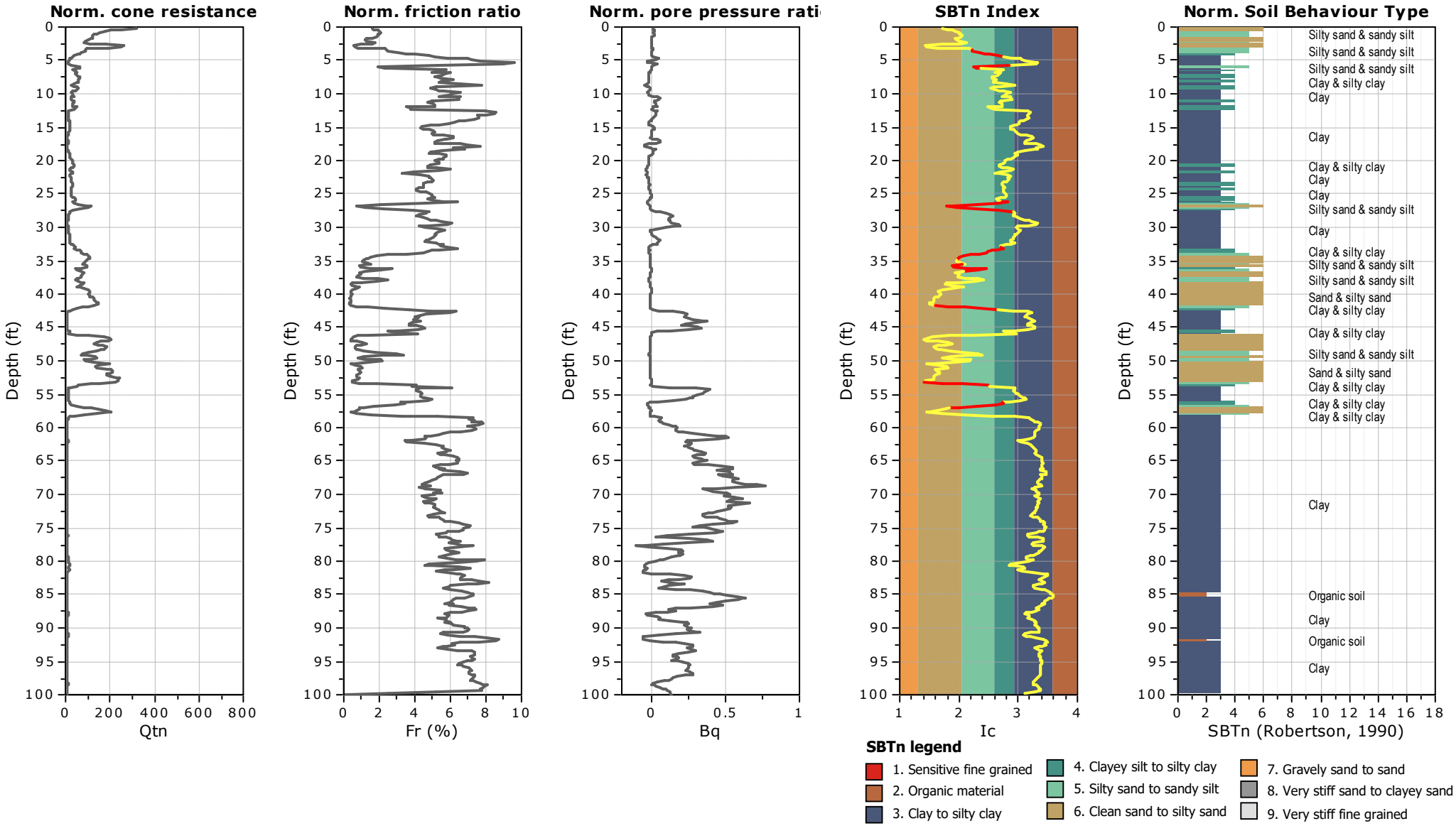
Soil Sensitivity factor, N_S: 7.00

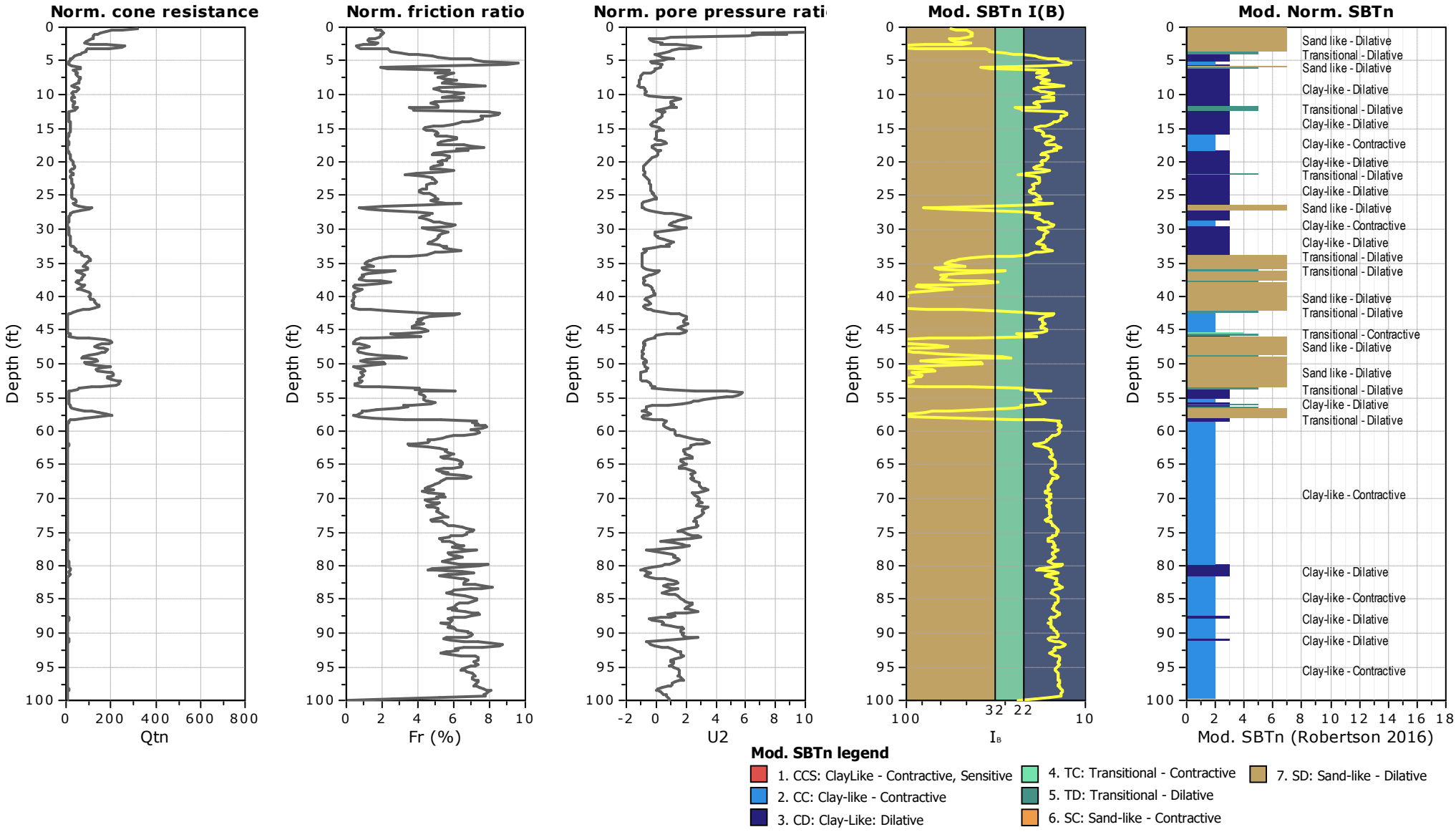

Bulk unit weight
Depth (ft)
γ (pcf)
Water content
w(%)
Void ratio
e
Dry unit weight
γ(dry) (pcf)
Porosity
n

Project: **SHORELINE GOLF LINKS**
Location: **MOUNTAIN VIEW**

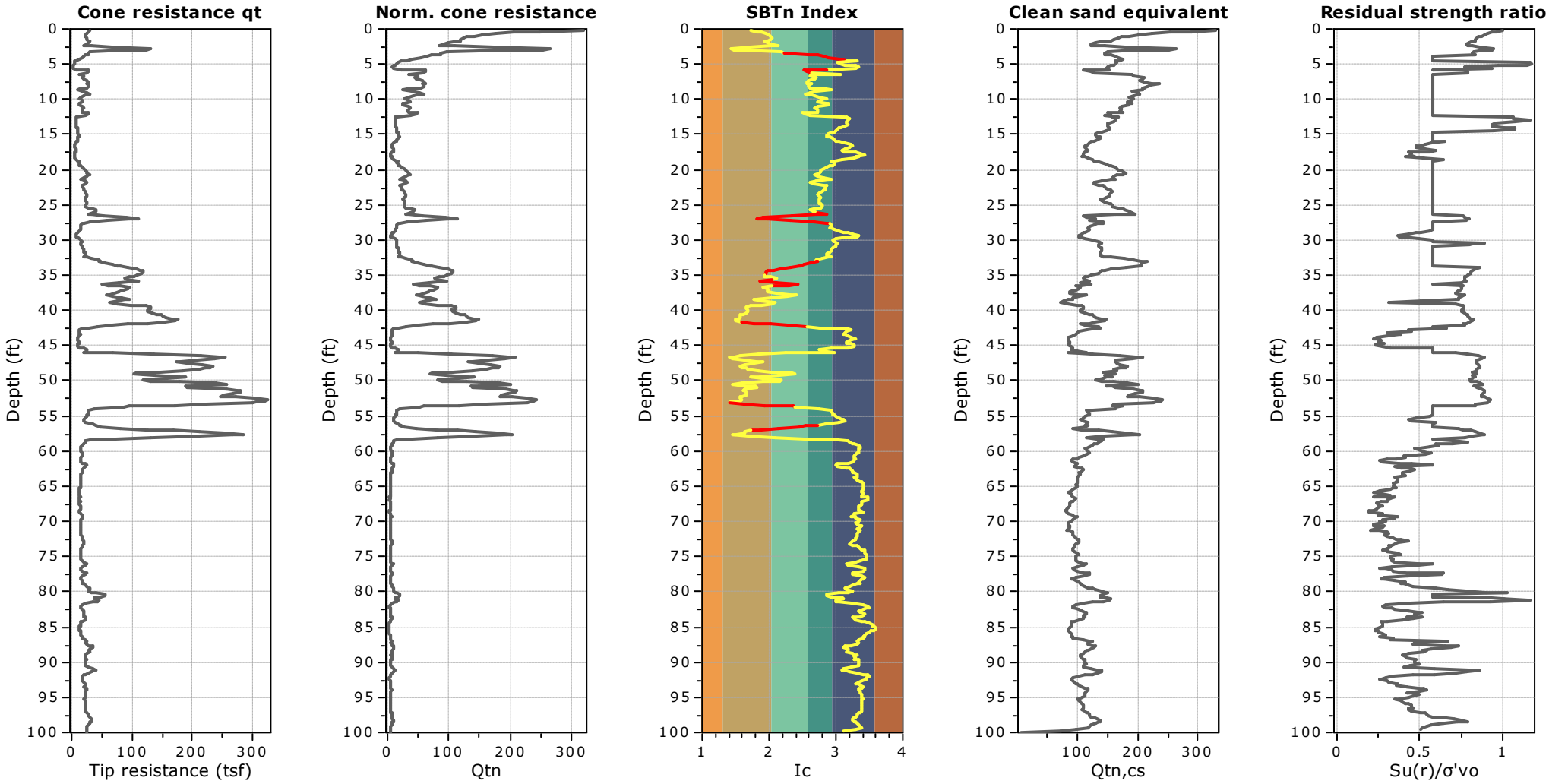


CPT: CPT-2
Total depth: 99.90 ft, Date: 11/2/2021
Surface Elevation: 11.00 ft
Cone Type: Uknown
Cone Operator: Uknown

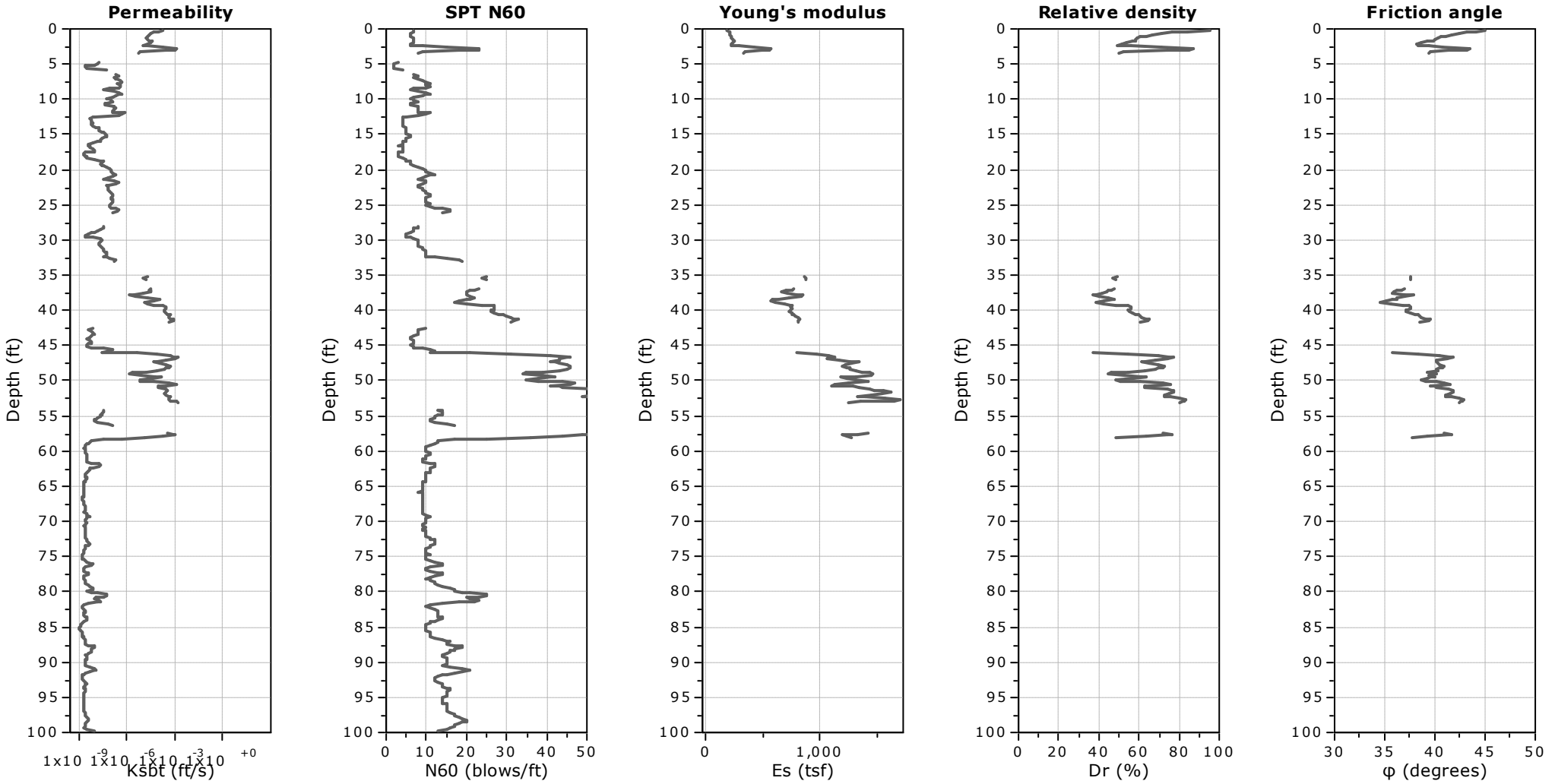



Norm. cone resistance
Depth (ft)
Qtn
Norm. friction ratio
Fr (%)
Norm. pore pressure rati
U2
Mod. SBTn I(B)
I_B
Mod. Norm. SBTn
Mod. SBTn (Robertson 2016)
Sand like - Dilative
Transitional - Dilative
Clay-like - Dilative
Transitional - Contractive
Clay-like - Contractive
Clay-like - Contractive
Mod. SBTn legend
1. CCS: ClayLike - Contractive, Sensitive
2. CC: Clay-like - Contractive
3. CD: Clay-Like: Dilative
4. TC: Transitional - Contractive
5. TD: Transitional - Dilative
6. SC: Sand-like - Contractive
7. SD: Sand-like - Dilative

Project: SHORELINE GOLF LINKS
Location: MOUNTAIN VIEW



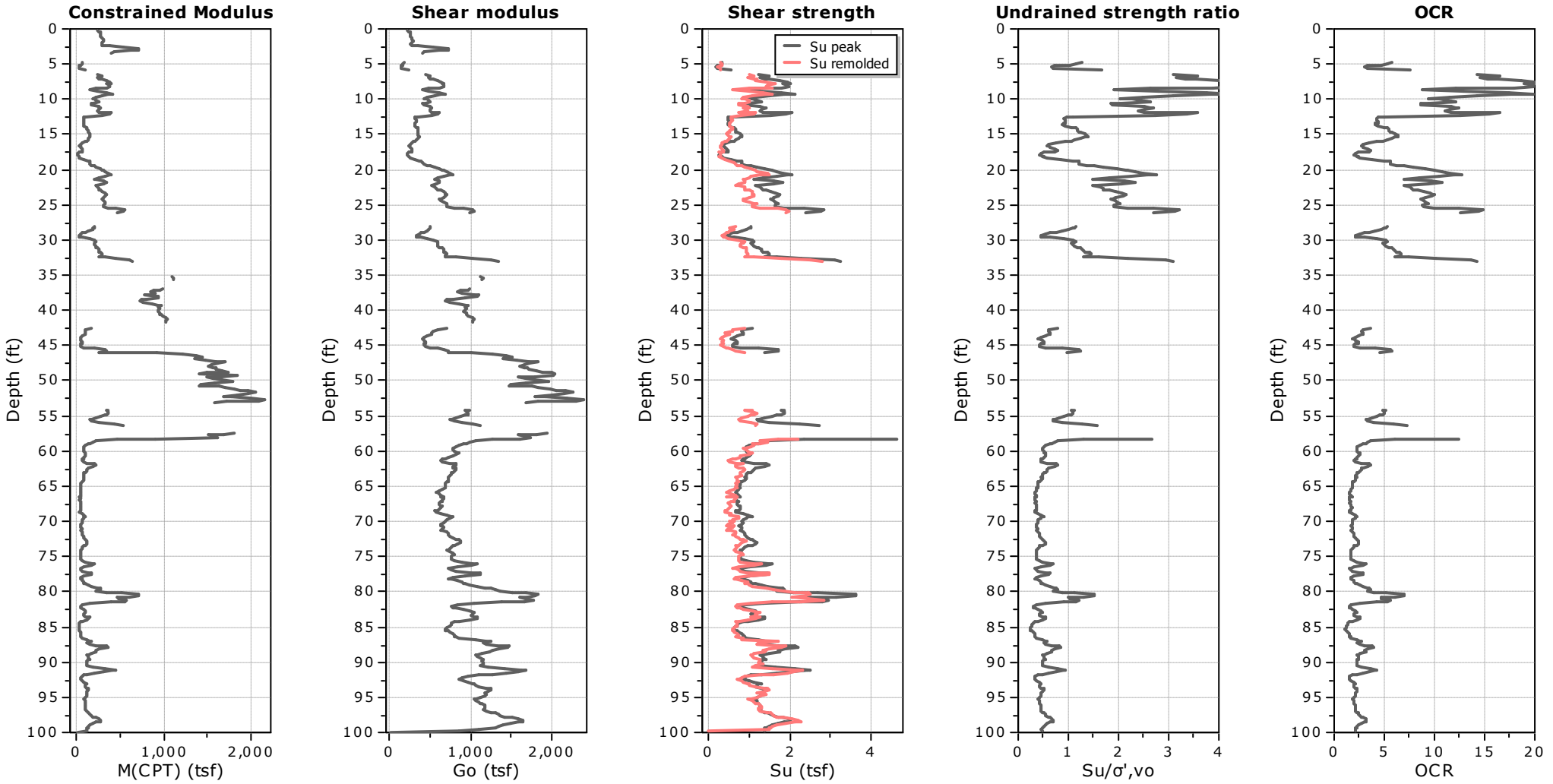
Project: **SHORELINE GOLF LINKS**
Location: **MOUNTAIN VIEW**



Calculation parameters

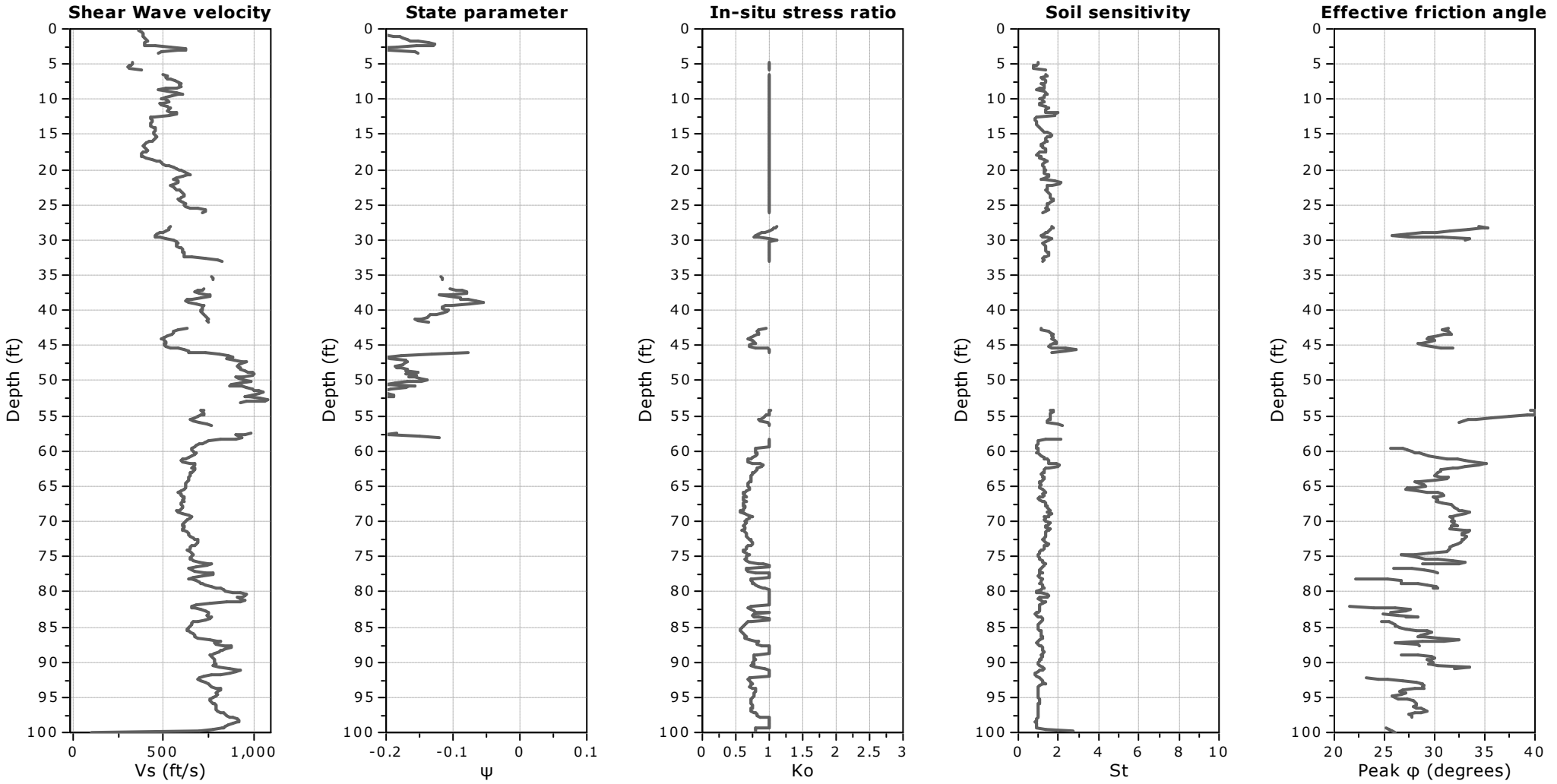
Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)

Project: SHORELINE GOLF LINKS
Location: MOUNTAIN VIEW



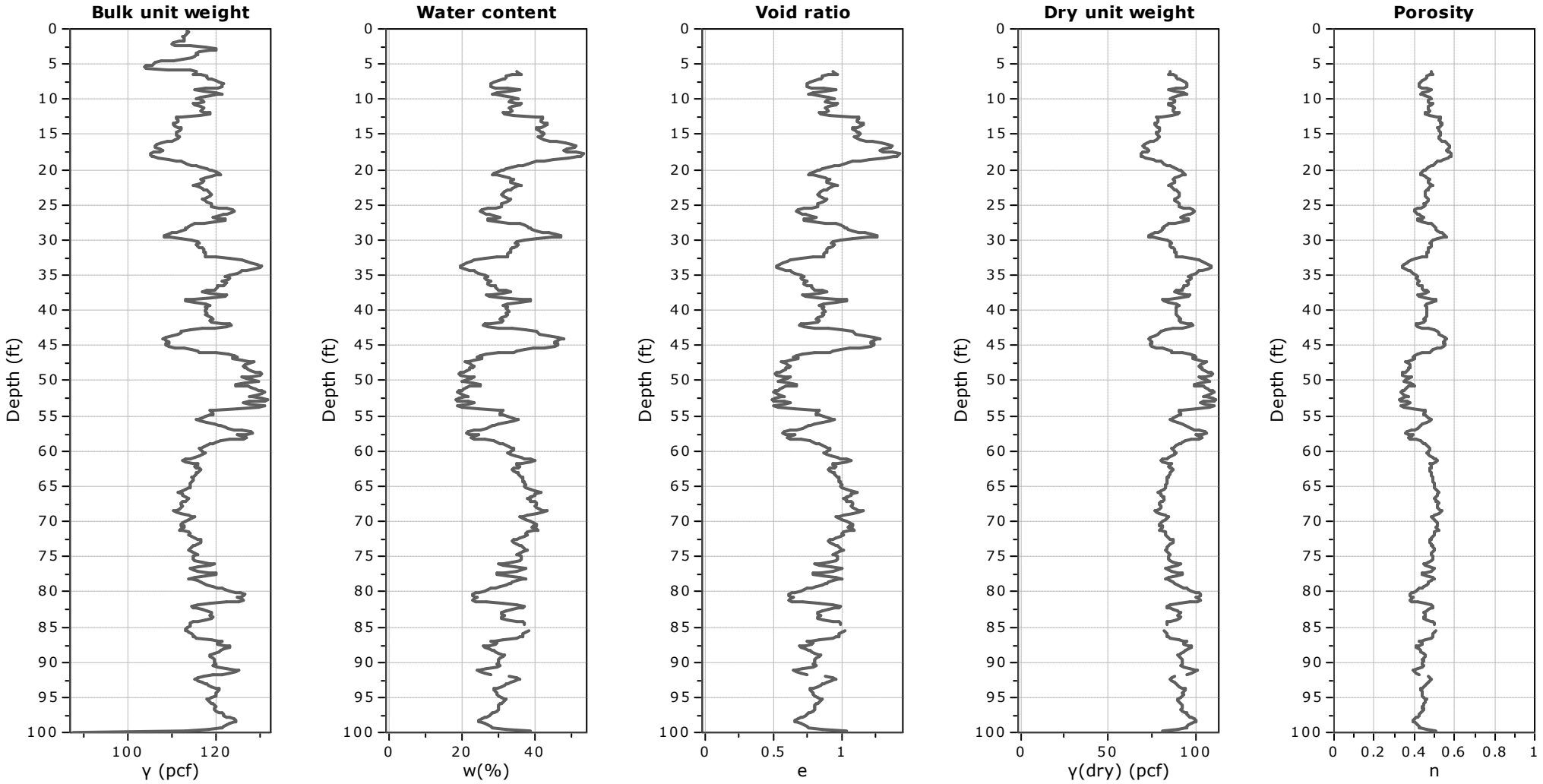
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 14
OCR factor for clays, N_{kt}: 0.33
Flat Dilatometer Test data

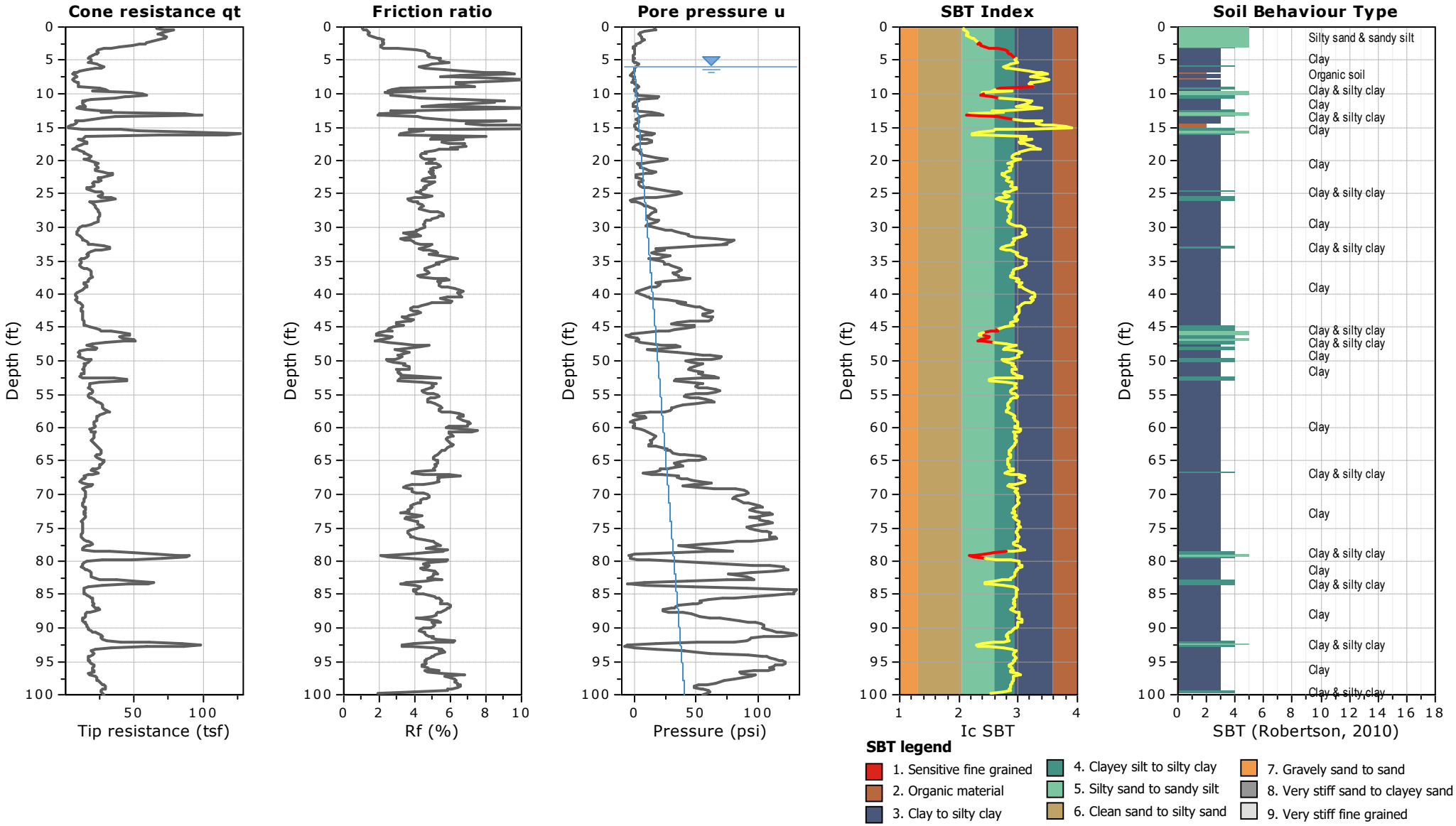


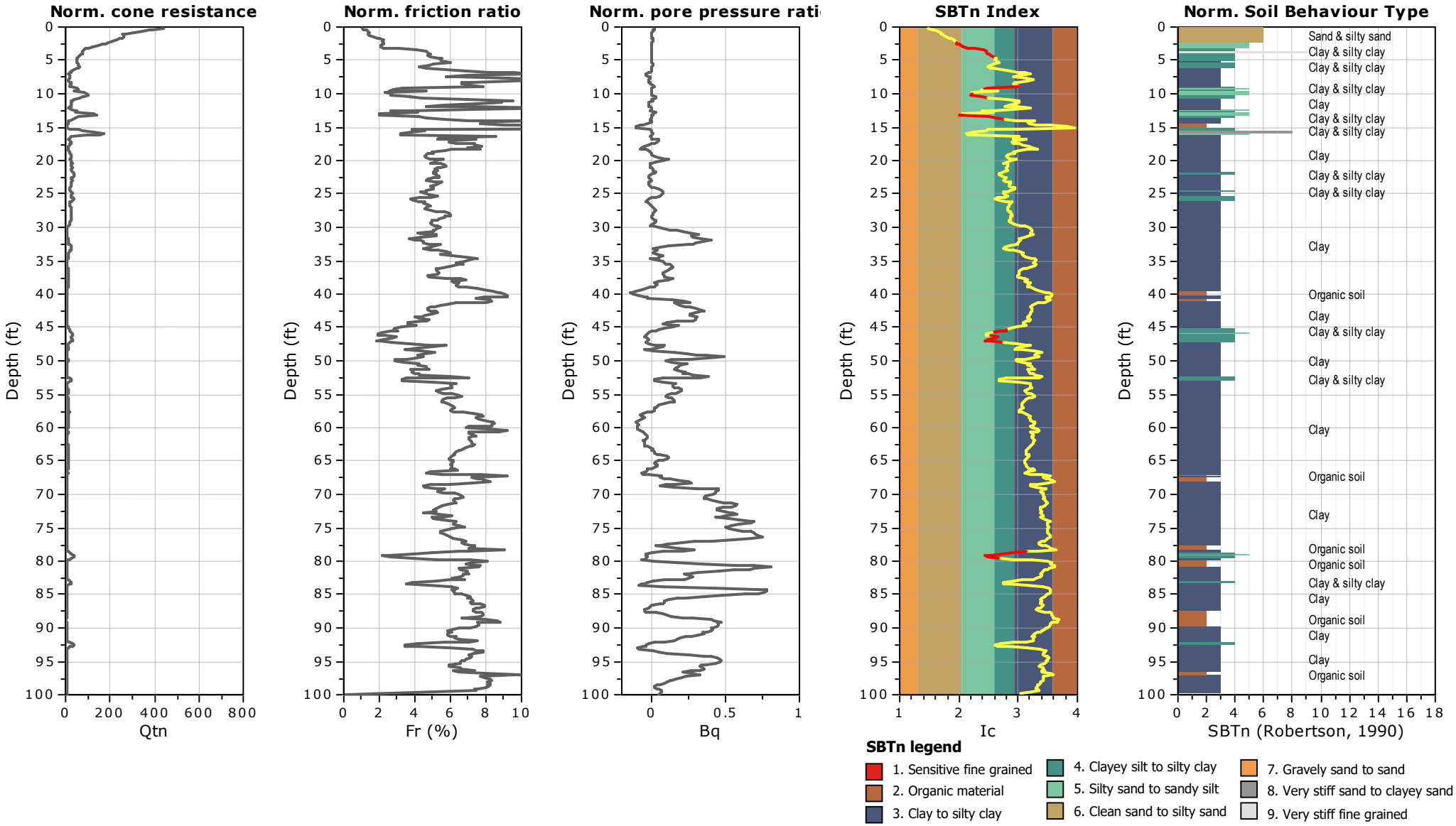
Calculation parameters

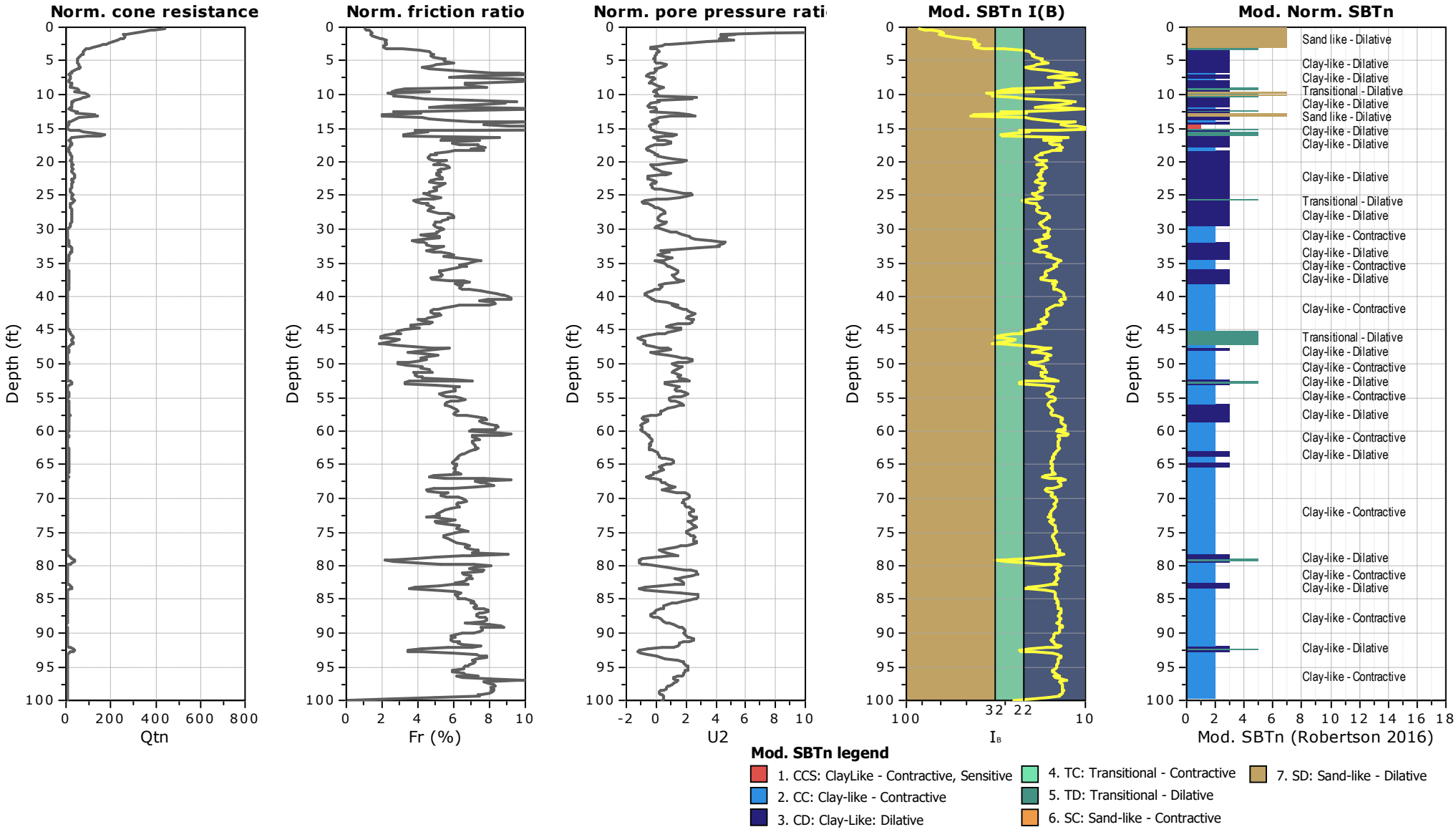
Soil Sensitivity factor, N_S: 7.00


Bulk unit weight
Depth (ft)
γ (pcf)
Water content
w(%)
Void ratio
e
Dry unit weight
γ(dry) (pcf)
Porosity
n

CPT: CPT-3
Total depth: 99.90 ft, Date: 11/2/2021
Surface Elevation: 14.00 ft
Cone Type: Uknown
Cone Operator: Uknown

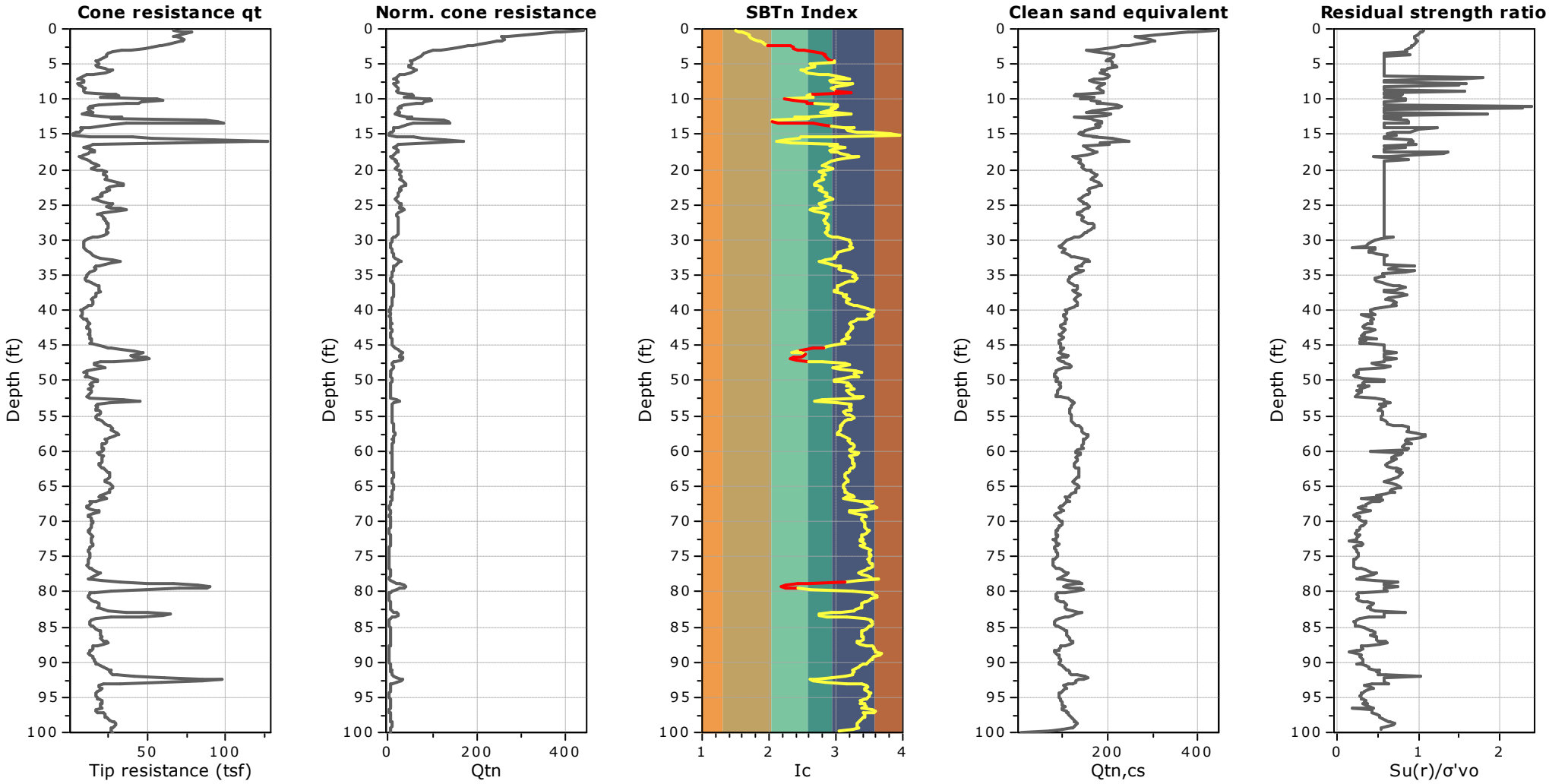



Norm. cone resistance
Depth (ft)
Qtn
Norm. friction ratio
Fr (%)
Norm. pore pressure rati
Bq
SBTn Index
Ic
Norm. Soil Behaviour Type
SBTn (Robertson, 1990)
Sand & silty sand
Clay & silty clay
Clay
Organic soil
SBTn legend
1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty clay
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to clayey sand
9. Very stiff fine grained

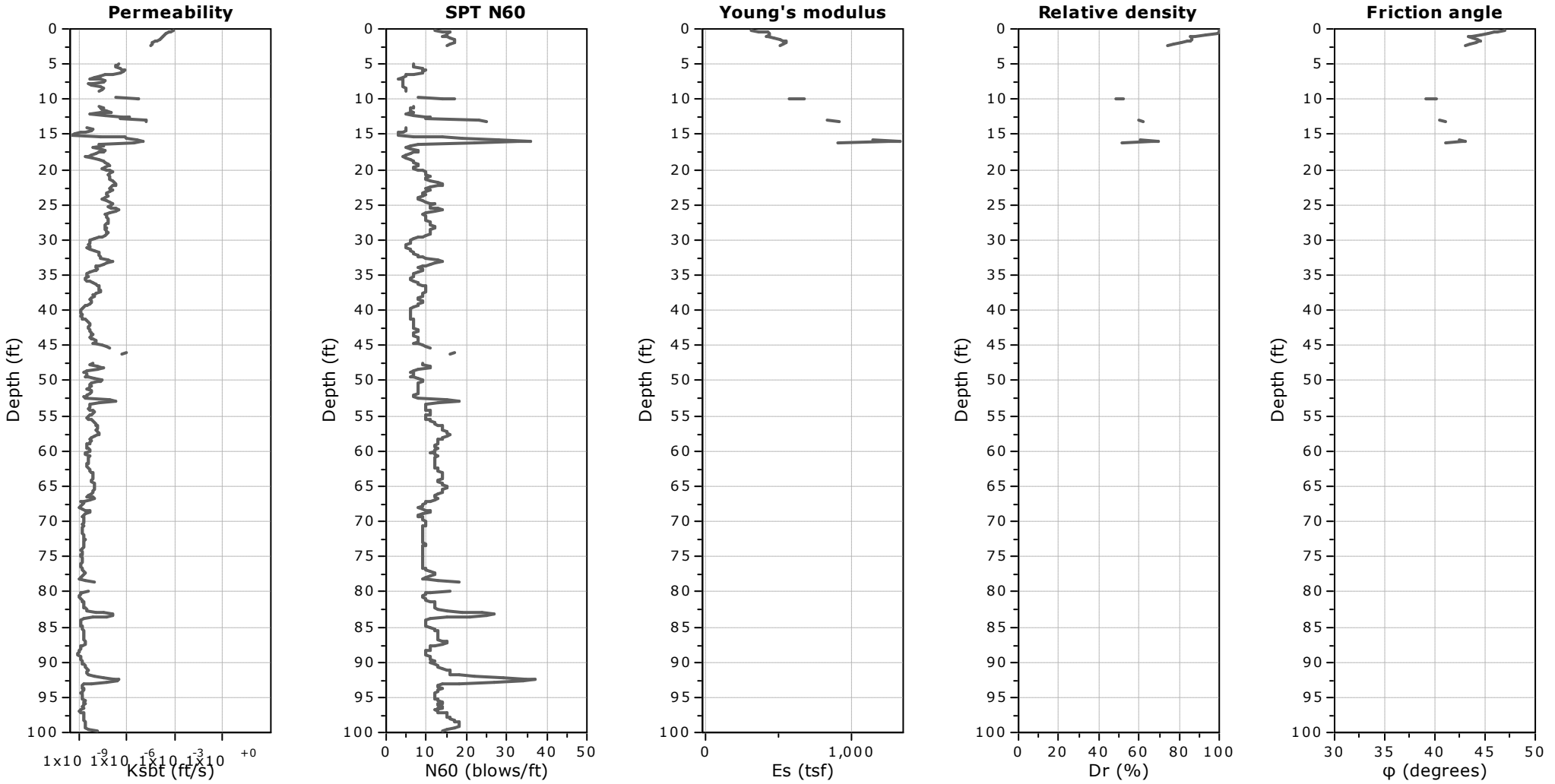

Norm. cone resistance
Depth (ft)
Qtn
Norm. friction ratio
Fr (%)
Norm. pore pressure rati
U2
Mod. SBTn I(B)
I_B
Mod. Norm. SBTn
Mod. SBTn (Robertson 2016)
Sand like - Dilative
Clay-like - Dilative
Transitional - Dilative
Clay-like - Contractive
Mod. SBTn legend
1. CCS: ClayLike - Contractive, Sensitive
2. CC: Clay-like - Contractive
3. CD: Clay-Like: Dilative
4. TC: Transitional - Contractive
5. TD: Transitional - Dilative
6. SC: Sand-like - Contractive
7. SD: Sand-like - Dilative

Project: SHORELINE GOLF LINKS
Location: MOUNTAIN VIEW

CPT: CPT-3
Total depth: 99.90 ft, Date: 11/2/2021
Surface Elevation: 14.00 ft
Cone Type: Uknown
Cone Operator: Uknown



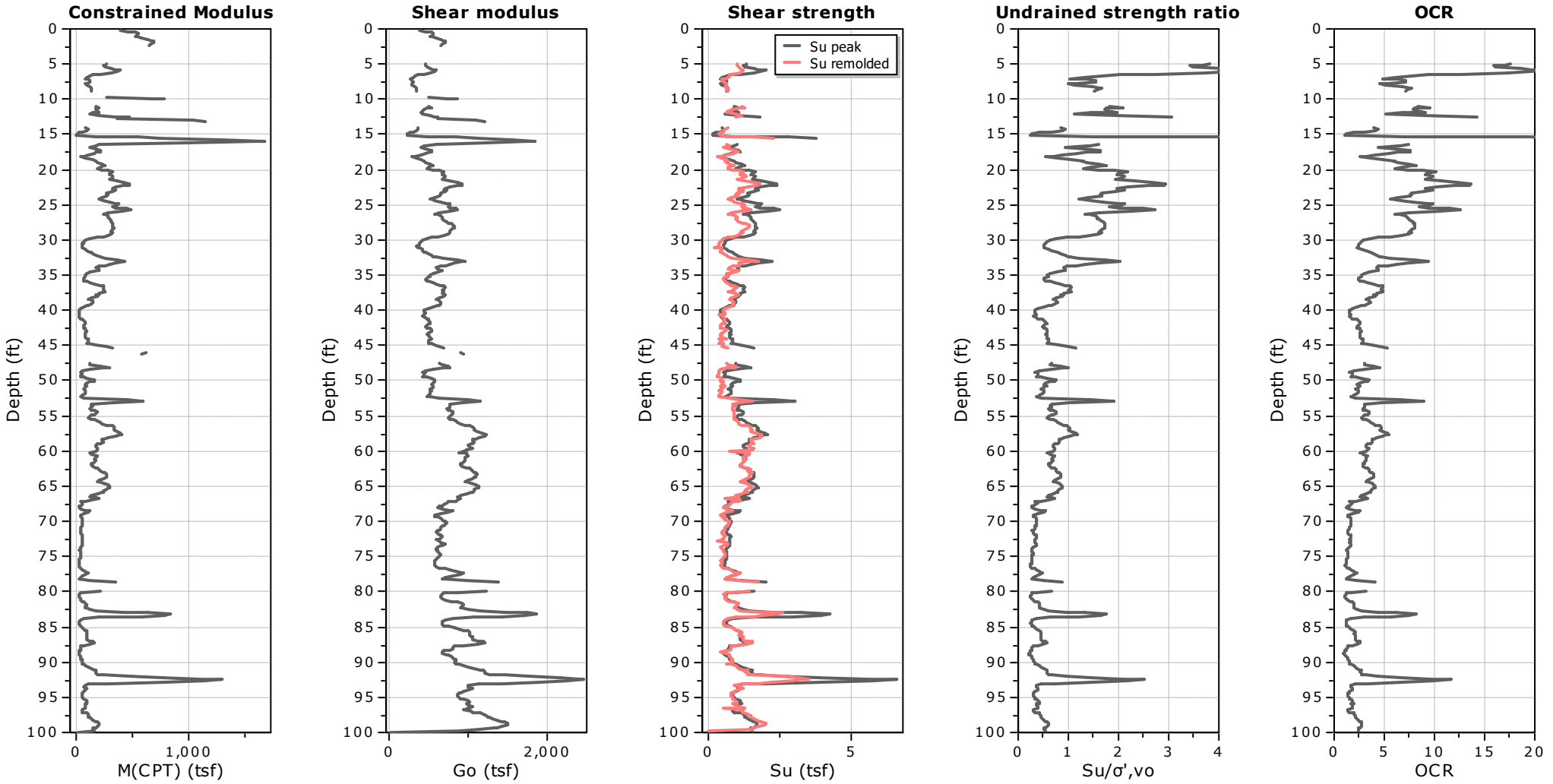
Project: **SHORELINE GOLF LINKS**
Location: **MOUNTAIN VIEW**



Calculation parameters

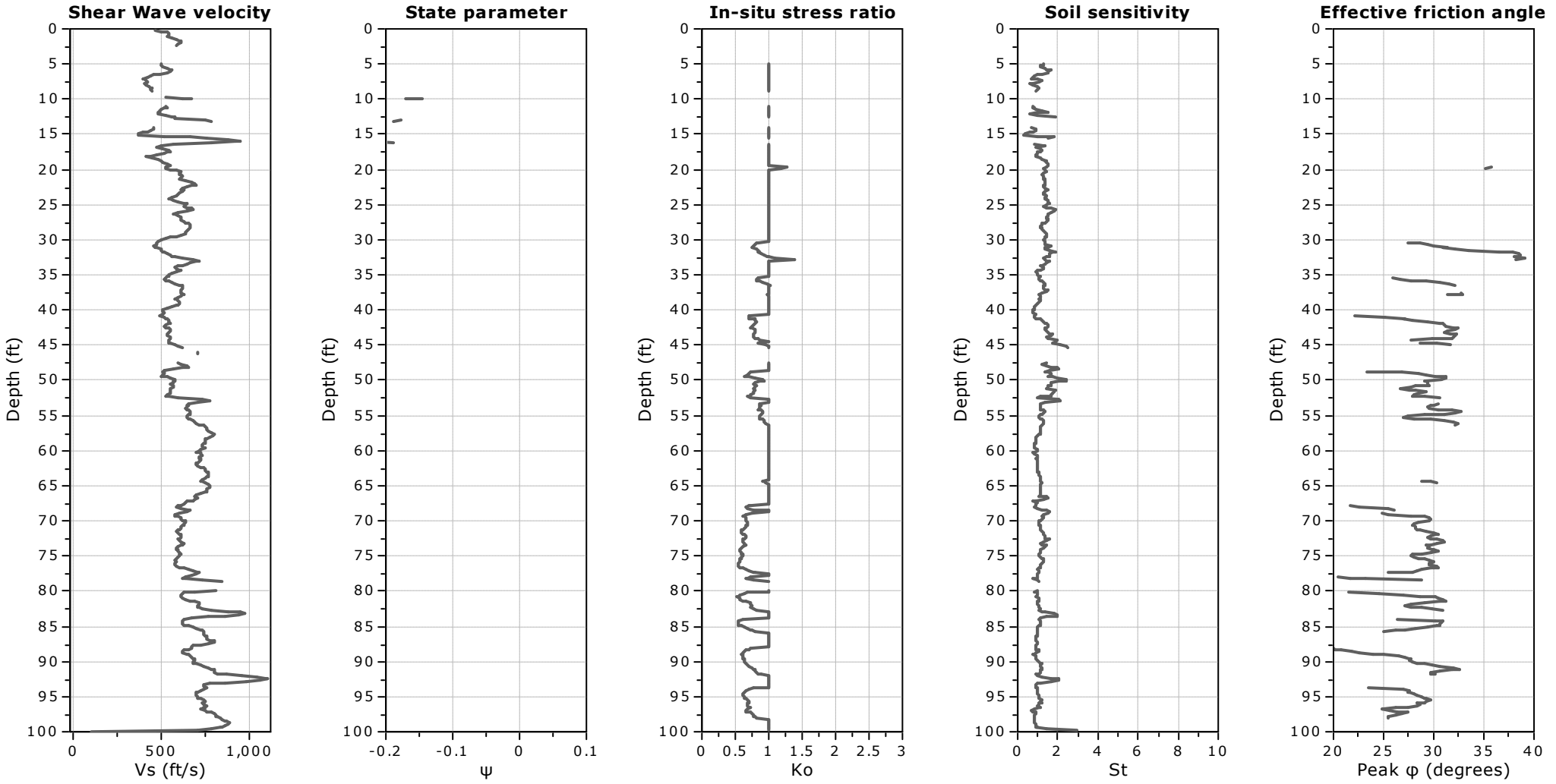
Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)

Project: SHORELINE GOLF LINKS
Location: MOUNTAIN VIEW



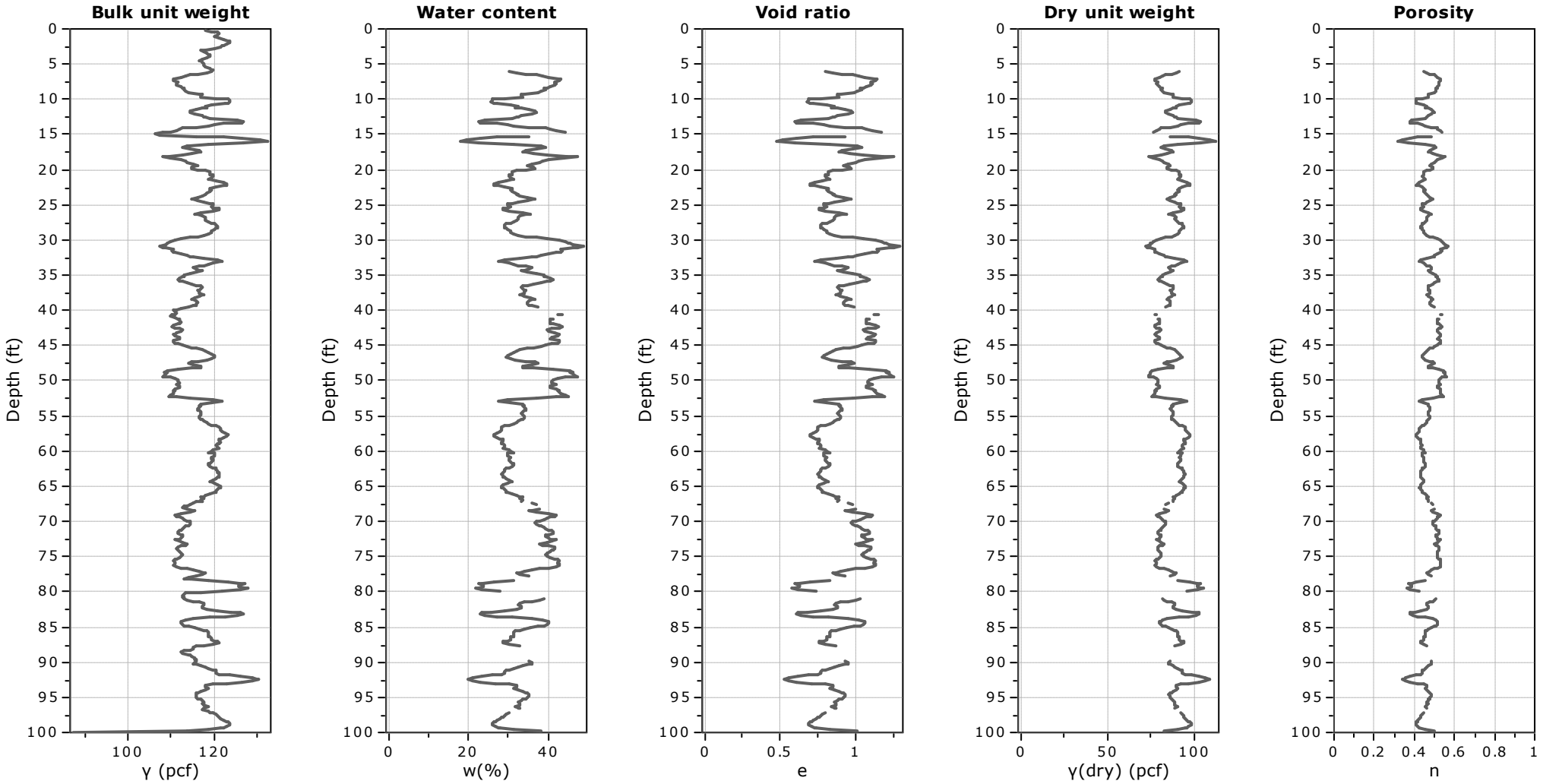
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 14
OCR factor for clays, N_{kt}: 0.33
Flat Dilatometer Test data

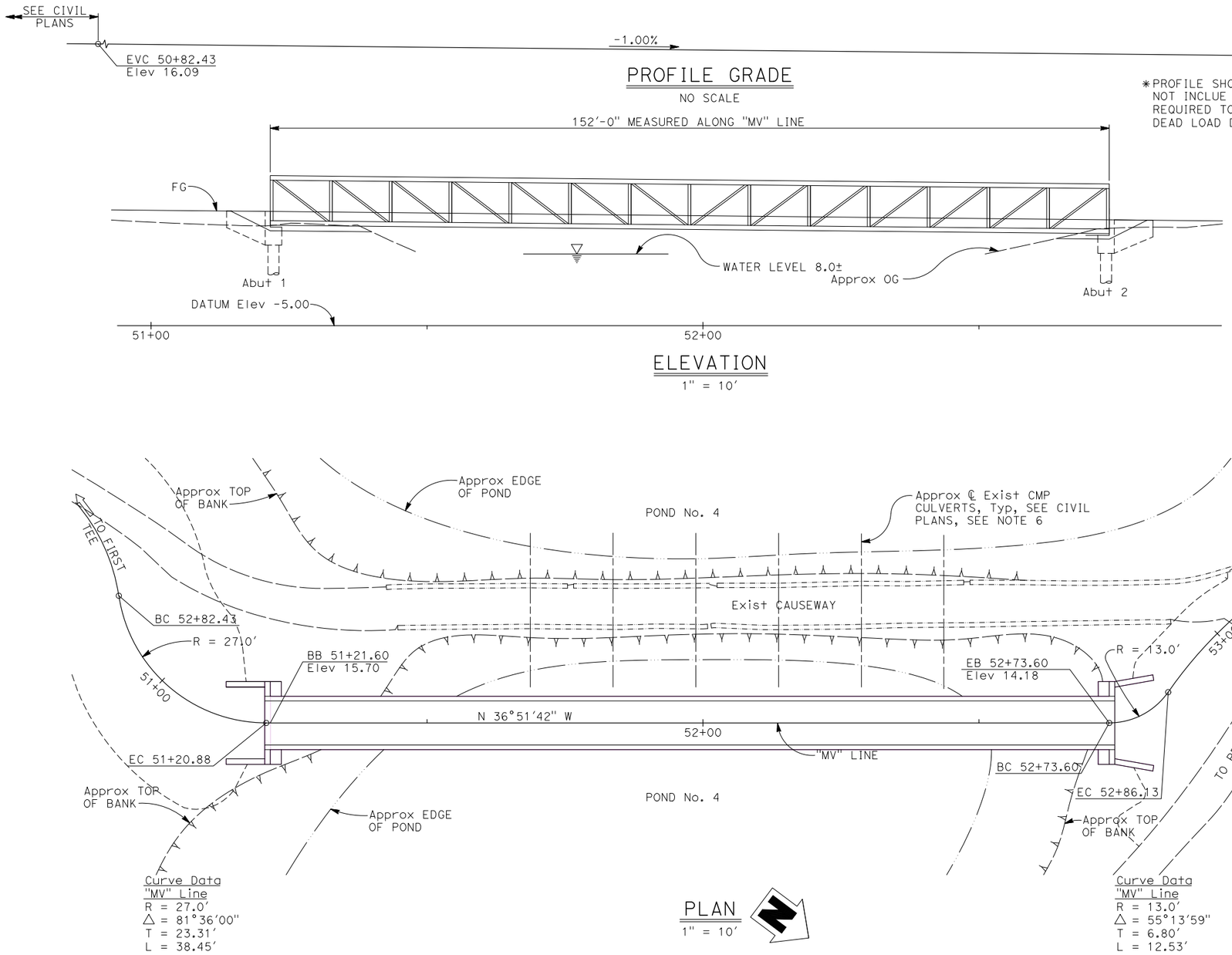


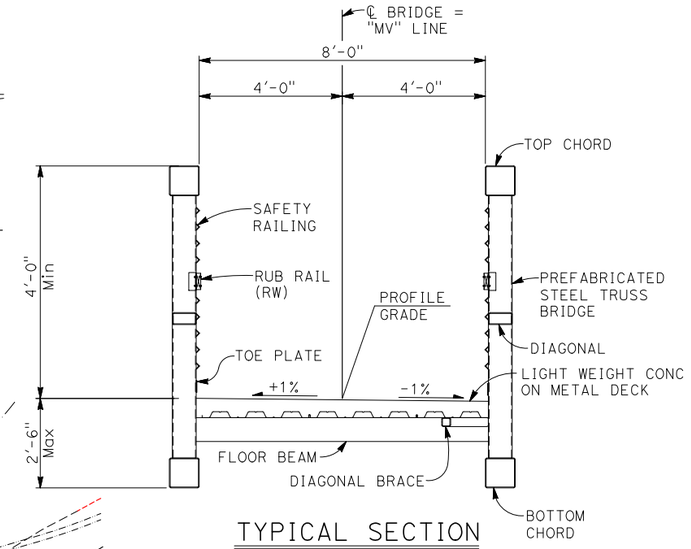
Calculation parameters

Soil Sensitivity factor, N_S: 7.00


Bulk unit weight
Depth (ft)
γ (pcf)
Water content
w(%)
Void ratio
e
Dry unit weight
γ(dry) (pcf)
Porosity
n

APPENDIX IV





TYPICAL SECTION
1/2" = 1'-0"

NOTES:

1. Contractor must verify all existing dimensions, elevations and conditions prior to beginning construction and/or ordering materials. Any discrepancies must be brought to the attention of the Engineer immediately.
2. Contractor must coordinate all embedded item locations with Bridge Manufacturer Drawings.
3. Bridge safety railing must not allow a sphere 4" or larger to pass through.
4. No construction activity may occur within the banks of Pond #4.
5. Contractor must not allow any construction material or equipment to enter Pond #4.
6. Existing Causeway is being replaced due to deterioration of the existing CMP Culverts. Contractor must not operate any heavy equipment that could damage the causeway or accelerate deterioration of the existing culverts.

PLAN CHECK SET/NOT FOR CONSTRUCTION (7/21/22)

REGISTERED PROFESSIONAL ENGINEER
ANTHONY P NOTARO
No. C51739
Exp.6/30/24
CIVIL
STATE OF CALIFORNIA

Prepared by: BIGGS CARDOSA ASSOCIATES INC.
STRUCTURAL ENGINEERS
865 THE ALAMEDA
SAN JOSE, CA 95126-3133
PHONE: 408-296-5515
FAX: 408-296-8114

REVISIONS

NO.	DATE	DESCRIPTION	APPROVED

DESIGNED BY: F. CASTILLO
DRAWN BY: S. HICKEY

CITY OF MOUNTAIN VIEW

CITY OF MOUNTAIN VIEW, CALIFORNIA
PUBLIC WORKS DEPARTMENT
500 CASTRO STREET, MOUNTAIN VIEW, CA 94041

GOLF CART BRIDGE REPLACEMENT AT
SHORELINE GOLF LINKS 1st FAIRWAY
GENERAL PLAN

SCALE:	DATE:	SHEET:
AS NOTED	12/13/2021	S1

(2021241-25_S1) 2021241

PIN XXXX-XX